

Site C Clean Energy Project

Fisheries and Aquatic Habitat Monitoring and Follow-up Program

Peace River and Site C Reservoir Water and Sediment Quality Monitoring Programs (Mon-8 and Mon-9)

Task 2b – Water Temperature

Construction Year 4 (2018)

Diversified Environmental Services

May 31, 2019

DIVERSIFIED ENVIRONMENTAL SERVICES

BOX 6263, FORT ST. JOHN, B.C. V1J 4H7 PHONE/FAX (250) 787-9101



BC HYDRO PEACE RIVER BASELINE TEMPERATURE MONITORING

YEAR 10 SUMMARY – January 01 to December 31, 2018

Date: May 31, 2019
Attention: Nich Burnett
BC Hydro
Vancouver, BC

Beginning in 2008, Diversified Environmental Services (DES) has maintained an array of Tidbit v2 Model #UTBI-001 temperature sensor/logger units in the Peace River as part of the BC Hydro Peace River Water Use Plan (WUP). The program has involved the monitoring of water temperature at 18 stations between the WAC Bennett Dam forebay (Williston Reservoir), and a point on the Peace River located 6.5 km downstream of the Pine River confluence. In April 2016, at the request of the Site C project, 6 temperature loggers were added at 3 additional monitoring sites in the project area. Two loggers were deployed along the left downstream bank of the lower Pine River mainstem (pineMS1 and pineMS2), 2 loggers were deployed along the left downstream bank of the lower Beatton River mainstem (beatMS1 and beatMS2), and 2 loggers were deployed on the left and right downstream banks of the Peace River, upstream of its confluence with the Pouce Coupe River (pouceUP1 and pouceUP2).

The following sections provide a summary of site descriptions and methods used to deploy, maintain, and download temperature loggers at the original WUP monitoring stations and the additional Site C monitoring stations. Logger locations and details appear in Figure 1 and Table 1.

Monitoring stations are typically maintained in pairs at each general location in order to minimize the risk of data gaps in the event of logger stranding, failure, or loss. At Peace River locations upstream of major tributaries (Halfway, Moberly, Pine, and Pouce Coupe rivers), monitoring stations are maintained on opposing banks of the river in order to provide redundancy and confirm temperature consistency across the channel.

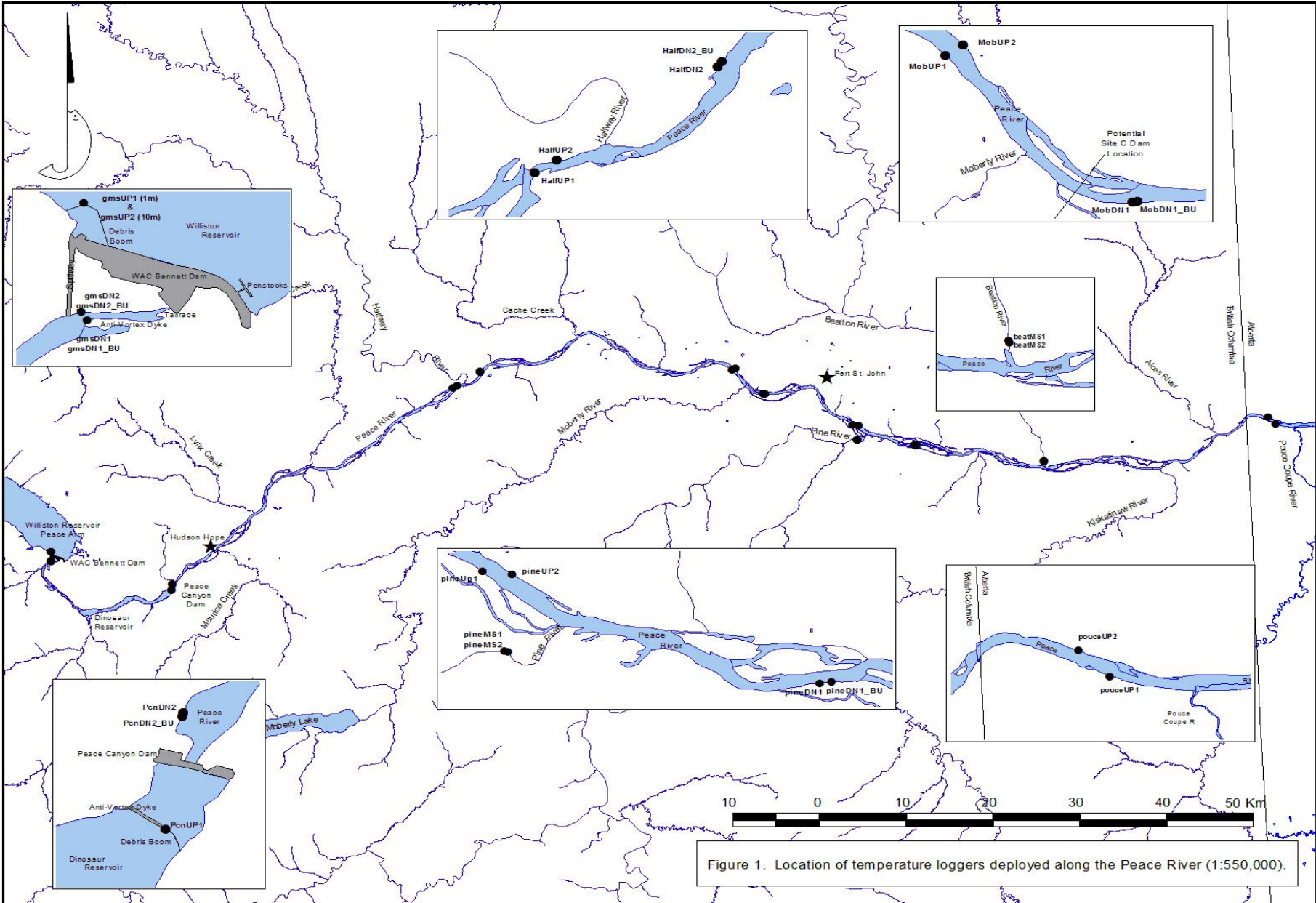


Figure 1. Location of temperature loggers deployed along the Peace River (1:550,000).

Table 1. Temperature monitoring station location information as of April 30, 2019.

Site ID	Serial #	Location	UTM (Zone 10)		Comment
			East	North	
gmsUP1	10676155	WAC Bennett Forebay	548841	6209022	steel buoy; 1 m depth
gmsUP2	10676160	WAC Bennett Forebay	548841	6209022	steel buoy; 10 m depth
gmsDN1	10635063	GMS Tailrace	548881	6207761	southbank; deflection wier riprap
gmsDN1BU	20332152	GMS Tailrace	548881	6207761	southbank; deflection wier riprap
gmsDN2	10669739	GMS Tailrace	548828	6207836	north bank; riprap below Tunnel portal #3
gmsDN2BU	20332121	GMS Tailrace	548828	6207836	north bank; riprap below Tunnel portal #3
pcnUP1	10635067	Peace Canyon Forebay	562710	6204068	anti-vortex log boom; 1 m depth
pcnDN2	10156317	Peace Canyon Tailrace	562803	6204854	north bank; rock slab
pcnDN2BU	10635061	Peace Canyon Tailrace	562803	6204854	north bank; rock slab
HalfUP1	20332123	Halfway Confluence - upstream	595165	6230094	south bank; spruce tree
HalfUP2	20030829	Halfway Confluence - upstream	595569	6230541	north bank; spruce tree
HalfDN2	10669748	Halfway Confluence - downstream	598313	6232378	north bank; willow
HalfDN2BU	10156314	Halfway Confluence - downstream	598286	6232332	north bank; willow
MobUP1	10887852	Moberly Confluence - upstream	627158	6232349	south bank; alder
MobUP2	10669754	Moberly Confluence - upstream	627501	6232563	north bank; spruce tree
MobDN1	10676146	Moberly Confluence - downstream	630583	6229281	south bank; alder
MobDN1BU	10676147	Moberly Confluence - downstream	630402	6229303	south bank; alder
PineUP1	10669747	Pine Confluence - upstream	641034	6225375	south bank; alder
PineUP2	20332129	Pine Confluence - upstream	641653	6225304	north bank; balsam poplar
PineDN1	20332124	Pine Confluence - downstream	648073	6222796	south bank; alder
PineDN1BU	10893055	Pine Confluence - downstream	648362	6222823	south bank; alder
PineMS1	10893069	Pine Mainstem - upstream of Peace	641762	6223599	north bank; steel piling
PineMS2	20097150	Pine Mainstem - upstream of Peace	641762	6223599	north bank; steel piling
BeatMS1	20322122	Beatton Mainstem - upstream of Peace	663101	6220759	east bank; spruce
BeatMS2	20030828	Beatton Mainstem - upstream of Peace	663101	6220759	east bank; spruce
PouceUP1	10635062	Pouce Coupe confluence - upstream	*316873	6225211	south bank; birch; *UTM Zone 11
PouceUP2	10893068	Pouce Coupe confluence - upstream	*315887	6226158	south bank; birch; *UTM Zone 11

At locations in and downstream of major tributaries, paired stations are maintained on common banks in order to provide better redundancy in tributary outflow paths prone to stranding by passing ice and debris.

Temperature loggers were programmed to record water temperature (°C) at 1 hour intervals. Loggers were housed in 38 mm x 100 mm steel nipples with threaded steel end caps, weighted with 5 kg steel anchors, and tethered to rooted trees or bedrock fragments using 3.18 mm stainless steel cable or 3.5 mm (7/32") steel chain.

Tethers on the lower Beaton mainstem loggers (beatMS1 and beatMS2) were replaced with heavier 12.7 mm galvanized cable in 2017, after the 3.18 mm tethers were parted by out flowing ice in the spring and large woody debris during summer storm events.

Temperature data recorded and stored on each logger during 2018 were downloaded at approximately 3 month intervals by field transfer to a Model U-DTW-1 Hobo® waterproof optical shuttle (Onset Corp., Bourne, MA). Data from the shuttle were then downloaded to a desktop computer after each field session.

Logger sites at the WAC Bennett Dam and Peace Canyon Dam forebay and tailrace locations were accessed by vehicle, while all Peace River and tributary sites were accessed by riverboat. Conditions and observations at the time of each download event were documented in the field on hardcopy Download Information Forms and subsequently entered into digital format. *In situ* reference temperatures were recorded at the time of each field download event using a YSI® Professional Plus handheld multi-parameter instrument (Model No. E-528-ProPlus) for comparison to the corresponding hourly logger readings (i.e., within 30 minutes of reference temperature). Data files were exported as MS Office Excel and Access compatible text files using Onset® Hoboware Pro software (Ver. 3.7.16) and amalgamated into single Excel worksheets for each data logger.

Occasional stranding of loggers above the waterline during Year 10 was largely associated with ice flows originating from the break-up of the Halfway, Moberly, Pine and Beaton rivers and the accumulation of debris on tether cables during tributary spring freshet and storm-related flood events in late June and July 2018. To partially alleviate this issue, the stainless steel cable tether of three of the downstream logger units was replaced with 3.5 mm steel chain (halfDN2BU, mobDN1, pineDN2BU).

Heavy snowfalls, extreme cold temperatures, and ice accumulation in January and February 2019 combined to make boating on the Peace River difficult resulting in the postponement of the download of several loggers. These downloads were completed in mid-March 2019 when favourable conditions provided a window of opportunity.

A technical problem with a replacement Hobo™ optical transfer shuttle resulted in the loss or corruption of data files during the first quarter of Year 10. The shuttle failed to correctly re-launch some loggers during the January 2018 download session, resulting in an absence of data at some stations between January and April 2018. The problem was not diagnosed until after examination of the files following the April 2018 download. The applicable loggers were then re-launched in April after immediate replacement of the faulty shuttle.

Reference temperatures recorded during download events are presented in Appendix I along with corresponding logger temperatures and indicated error values. None of the loggers in use in 2018 exhibited a correctable zero error greater than 0.3°C. An inconsistent reference temperature discrepancy (0.7°C) at Beatton River mainstem logger beatMS2 was attributed to localized variations between the time of download and the time of the associated hourly reading, resulting from extreme low flow and shallow water depth. This discrepancy was not believed to be a logger calibration error.

Download Information Forms completed during each field download session are provided in Appendix II. Several loggers were replaced in Year 10, as they were approaching the end of their predicted lifespan of six years or were recording low voltage readings.

A summary of temperature data collection results and related conditions and limitations are discussed in the following 8 sections, which correspond to the 8 generating station and major tributary features.

WAC Bennett Dam Forebay and Tailrace

The WAC Bennett Dam forebay temperature monitoring station is located at the GMS spillway log boom and consists of a vertical cable suspended from the northernmost log boom steel buoy. Temperature is recorded with 2 loggers, the first located at 1 m depth (gmsUP1) and the second at a depth of 10 m (gmsUP2). Both gmsUP1 and gmsUP2 data files were corrupted by faulty launches by the Hobo optical shuttle in April 2018 resulting in the loss of data from April 19 to April 25. Aside from this brief period, both loggers recorded seamless water temperature data in Year 10. Although seasonal thermal stratification of Williston Reservoir is evident, the relatively small temperature

differential between the 2 loggers (mean=0.2°C) suggests the primary thermocline lies deeper than 10 m. Maximum temperature differentials up to 3.4°C were recorded during a period of significant daytime surface warming during the beginning of August, when annual ambient temperatures peaked. Temperature profiles recorded further up the Peace Reach during unrelated work in 2017 and 2018 indicated significant thermal stratification between 20 m and 26 m (B. Culling, pers. obs.).

Sudden and short term declines in water temperature were recorded by logger gmsUP2 in mid-September and early October 2018. These sharp declines correspond to heavy rain and snow fall events and a possible premature breakdown of the thermocline in 2018.

The GMS tailrace monitoring sites are located on opposite banks, approximately 700 m downstream of the outflow manifolds. Logger gmsDN1 records the temperature of water flowing from the south tailrace manifold, which originates from the shallowest penstock depth. Logger gmsDN2 samples water from the north tailrace manifold, which originates from a deeper withdrawal point. The tethered steel capsule at both stations contains a back-up logger in addition to the primary unit (gmsDN1BU and gmsDN2BU). The data files for all 4 loggers for the period between January 10 and April 30, 2018 were corrupted by a faulty launch by the Hobo optical shuttle in January 2018 and could not be recovered. From April 30 to December 31, 2018, all 4 loggers collected continuous data for the remainder of Year 10.

As in previous years, water temperatures at gmsDN2 showed the lowest annual variation and are consistently cooler in the summer and warmer in the winter than gmsDN1 flow, which originates closer to the surface of Williston Reservoir. Temperatures recorded at gmsUP1 (forebay surface) exhibit greater annual variation than tailrace values. Temperatures recorded at gmsDN1 and gmsDN2 exhibit a wide range of hourly and daily fluctuations during the summer period compared to gmsUP1, due to operational changes in water intake for power generation and maintenance activities.

Peace Canyon Dam Forebay and Tailrace

The data logger recording temperature at the Peace Canyon Dam forebay (pcnUP1) is attached to the anti-vortex dam log boom, located approximately 450 m upstream of the dam face. The pcnUP1 data file for the period between January 10 and April 30, 2018 was corrupted by a faulty launch by the Hobo optical shuttle in January 2018 and could not be recovered. Continuous temperature data were recovered for the remainder of Year 10 (April 30 to December 31, 2017).

The Peace Canyon Tailrace loggers (pcnDN2 and pcnDN2BU) are located on the left downstream bank of the Peace River approximately 200 m downstream of the dam outflow manifold. Peace Canyon

Tailrace logger pcnDN2BU recorded continuous data throughout Year 10. The pcnDN2 data file for the period between January 10 and April 30, 2018 was corrupted by a faulty launch by the Hobo optical shuttle in January 2018 and could not be recovered. Continuous temperature data were recovered for the remainder of Year 10 (April 30 to December 31, 2018).

A comparison of PCN tailrace temperature (pcnDN2BU) and GMS tailrace temperature (mean of gmsDN1 and gmsDN2) indicates a relatively small temperature change through Dinosaur Reservoir during all seasons. For example, no temperature difference was recorded in winter (December through January 10) and a mean differential of 0.4°C was recorded in summer (June through August).

Halfway River Confluence

Peace River water temperature was monitored at points approximately 1 km upstream and 2.5 km downstream of the Halfway River confluence. Halfway upstream stations were maintained on opposing banks throughout Year 10 (halfUP1 and halfUP2). The upstream logger halfUP1 collected seamless data for the periods January 1 to April 25 and July 15 to January 31, 2018. The data for the intervening period of April 25 to July 15, 2018 could not be recovered as the logger capsule and tether cable were removed by persons unknown. The location of the new replacement logger was modified. The halfUP2 data file for the period from April 25 to 30 was corrupted by a faulty launch by the Hobo optical shuttle in April 2018. Seamless temperature data were recovered for logger halfUP2 for the periods preceding and following April 25 to 30, 2018. No cross-channel differential was recorded between the opposing upstream stations.

Both Halfway downstream loggers (halfDN2 and halfDN2BU) were located on the left downstream bank within the influence of Halfway River inputs. Both halfDN2 and halfDN2BU data files for the period from April 25 to 30 were corrupted by faulty launches by the Hobo optical shuttle in April 2018. In July 2018, extremely low discharge from BC hydro facilities upstream combined with localized channel configuration, resulted in near-stagnant flow conditions at the halfDN2 and halfDN2BU logger sites. In order to ensure that both loggers were positioned in an area with adequate stream flow, halfDN2 and halfDN2BU loggers were moved approximately 220 m downstream during the July 2018 download session. Logger halfDN2 was partially swung into shallow water by ice and debris from the Halfway River in early December 2018 and intermittently recorded air temperature during periods of low flow prior to the January 2019 download. Logger halfDN2BU was swung into shallow water by debris from the Halfway River in early June, after the April 2018 download session, and again in late July, soon after the July 2018

download session. Throughout these periods, logger halfDN2BU frequently recorded air temperature during periods of low flow prior to the October 2018 download. During the October 2018 download session, the tether cable of halfDN2BU was replaced with heavier chain which resulted in no subsequent exposures.

As in previous years, Peace River temperature values recorded at stations upstream and downstream of the Halfway River confluence differed markedly. Temperatures collected downstream of the confluence exhibited a higher degree of daily and annual variability. Halfway River inputs typically have a cooling effect during the winter (October through April) and a warming effect during the summer (May through September). Temperatures within the Halfway River mainstem upstream of its confluence with the Peace River are not recorded as part of this project.

Moberly River Confluence

Peace River water temperature was monitored at points approximately 2.6 km upstream and 2.5 km downstream of the Moberly River confluence. Upstream stations were maintained on opposing banks throughout Year 10 (mobUP1 and mobUP2). The mobUP1 and mobUP2 data files for the period April 27 to 30 were corrupted by a faulty launch by the Hobo optical shuttle in April 2018 and could not be recovered. Excluding this period, mobUP2 recorded seamless water temperature data in Year 10. Logger mobUP1 was also partially swung to shore by ice or debris prior to the April 27, 2018 download session and recorded ambient air temperature intermittently between April 4 and 27, 2018. Excluding periods when logger mobUP1 was exposed above the water, no cross-channel differential was recorded in 2018.

The Moberly downstream logger and downstream back-up logger are both located on the south bank of the Peace River, within the influence of outfall from the Moberly River. Both loggers also lie immediately downstream of the footprint of the Site C dam which is presently under construction. Logger mobDN1 was found partially swung to shore by ice and exposed at low water levels during the April 27, 2018 download session and intermittently recorded ambient air temperatures between February 8 and April 27, 2018. After April 27, logger mobDN1 recorded continuous water temperature data in 2018. During the last download session in January 2019, the logger was found swung to shore again. The stainless steel tether cable was replaced with chain in order to minimize the risk of debris and ice dislodging the logger. The mobDN2BU data file was corrupted by a faulty launch by the Hobo optical shuttle in January 2018 resulting in the loss of data from January 4 to April 27. Logger mobDN1BU was found partially pulled to shore by persons unknown

and exposed at low water levels during the July 11, 2018 download session and appears to have intermittently recorded ambient air temperatures between June 6 and July 11, 2018.

As in previous years, Peace River water temperatures recorded within the influence of the Moberly River were cooler than the Moberly upstream stations from January through March and warmer than the upstream stations from May through July in Year 10. The influence of the Moberly River is significantly less than that of the Halfway River and appears to correspond to the difference in relative contributed volumes. Temperatures within the Moberly River upstream of its confluence with the Peace River are not recorded as part of this project.

Pine River Confluence

Peace River water temperature was monitored at points approximately 2.0 km upstream and 6.5 km downstream of the Pine River confluence. During Year 10, upstream stations were maintained on opposing banks (pineUP1 and pineUP2) and both downstream loggers (pineDN1 and pineDN1BU) were located on the south river bank, within the influence of inputs from the Pine River. The pineUP1 data file for the period of January 4 to April 27 was corrupted by a faulty launch by the Hobo optical shuttle in April 2018 and could not be recovered. Excluding this period, pineUP1 recorded continuous water temperature data in Year 10. The data file for logger pineUP2 during the periods of January 1-8 and April 27-30 was corrupted by faulty launches by the Hobo optical shuttle in January and April 2018, respectively and could not be recovered. During the October 2018 download session, logger pineUP2 was found partially pulled to shore by persons unknown. As a result, logger pineUP2 was frequently exposed from September 22 to October 3, 2018. A slight cross-channel differential of 0.4°C was recorded between July 1 and August 31, 2018.

The pineDN1 data file for the period of January 4 to April 27 was corrupted by a faulty launch by the Hobo optical shuttle in January 2018 and could not be recovered. Excluding this period, logger pineDN1 recorded continuous water temperature data for the remainder of Year 10. Logger pineDN1BU recorded continuous water temperature data throughout most of Year 10 with the exception of brief periods when the logger was exposed during periods of low water discharge from BC Hydro facilities upstream in late April and early June 2018.

Temperature values recorded within the downstream influence of the Pine River were typically cooler than the Pine River upstream stations from late September through December and slightly warmer from July through mid-September.

Pine River Mainstem

Temperature loggers in the lower Pine River were initially installed on April 15, 2016. During 2018, both loggers were located on the right downstream bank approximately 1.3 km upstream of the confluence with the Peace River. These loggers are typically not accessible during the winter months due to heavy ice cover and are not downloaded between October and April. Data recorded between October 19 and December 31, 2018 were recovered in May 2019.

Logger pineMS1 recorded continuous data throughout Year 10, but appeared to have been dislodged by debris on August 11. As a result, this logger recorded air temperature intermittently during periods of low flow between August 11 and the October 19 download event.

Back-up logger pineMS2 was lost during the break-up of ice in the lower Pine River during both April 2018 and April 2019. As a result, pineMS2 data from Jan 1 to April 27, 2018 and from October 19 to December 31, 2018 are not available. This logger was also affected by the August 11 debris flow and recorded intermittent air temperature until the October 19, 2018 download.

Beatton River Mainstem

Temperature loggers in the lower Beatton River (beatMS1 and beatMS2) were initially installed on April 15, 2016. The lower Beatton River monitoring sites have proven to be the most susceptible to dislodgement and loss due to the break-up of winter ice and the passing of large wood debris during summer flood events. During 2017, the 3.18 mm stainless steel tethers on both loggers were replaced with heavier 12.7 mm galvanized cable, after the tethers were parted by out flowing ice in April 2017. In addition, the location of both loggers was adjusted during 2017 to minimize contact with debris flow. Both loggers are currently located on the left downstream bank approximately 1.0 km upstream from the confluence with the Peace River. The lower Beatton River loggers are typically not accessible during the winter months due to heavy ice cover and cannot be downloaded between October and April. Data recorded between October and December 2018 were recovered in May 2019.

Beatton River logger beatMS1 was lost to ice break-up just prior to the April 2018 download and, as a result, no data could be recovered for January 1 to April 27, 2018. This logger recorded continuous

data for the remainder of the year but appears to have been in shallow water during extremely low flows in the Beatton River between August 20 and September 6, 2018. Back-up logger beatMS2 recorded continuous data through 2018, but similarly appears to have been intermittently exposed during extreme low flow from August 20 to September 9, 2018.

Peace River Upstream of Pouce Coupe River

Temperature loggers in the Peace River upstream of the Pouce Coupe River confluence (pouceUP1 and pouceUP2) were initially installed on April 15, 2016. The pouceUP1 and pouceUP2 stations are currently located 2.4 km and 3.3 km upstream of the confluence with the Pouce Coupe River, respectively.

No data from either pouceUP logger could be recovered for the period between January 17 and April 25, 2018. Logger pouceUP1 was lost to heavy ice flows prior to the April 2018 download and back-up logger pouceUP2 was affected by a faulty shuttle launch after the January 17 download.

Both loggers recorded continuous data for the remainder of the year, however, logger pouceUP2 was exposed by a landslide on September 18 and recorded air temperature until the October 18, 2018 download.

APPENDIX I

REFERENCE TEMPERATURE VALUES

Appendix I. Reference temperature values and corresponding logger fix values recorded during download events in Year 10, January 01, 2018 to December 31, 2018.

Logger ID	Date	Fix Temp	Ref Temp	Error
gmsUP1 (SN 10676155)	19-Apr-18	0.8	0.8	0.0
	12-Jul-18	16.2	16.4	-0.2
	22-Oct-18	7.2	7.1	-0.1
gmsUP2 (SN 10666160)	19-Apr-18	1.1	1.2	0.1
	12-Jul-18	13.8	13.8	0.0
	22-Oct-18	7.2	7.1	0.1
gmsDN1 (SN 10635063)	10-Jan-18	1.8	1.7	0.1
	12-Jul-18	11.6	11.9	-0.3
	22-Oct-18	7.0	7.1	-0.1
gmsDN1_BU (SN 2038613)	10-Jan-18	1.9	1.7	0.2
	12-Jul-18	11.9	11.9	0.0
	22-Oct-18	7.1	7.1	0.0
gmsDN2 (SN 10669739)	10-Jan-18	1.8	1.7	0.1
	12-Jul-18	11.6	11.9	-0.3
	22-Oct-18	7.0	7.1	-0.1
gmsDN2_BU (SN 2038614) (SN 20332121)	10-Jan-18	1.9	1.7	0.2
	12-Jul-18	11.8	11.9	-0.1
	22-Oct-18	7.1	7.1	0.0
pcnUP1 (SN 10635067)	10-Jan-18	1.4	1.1	0.3
	12-Jul-18	17.1	17.0	0.1
	22-Oct-18	7.2	7.3	-0.1
pcnDN2 (SN 10156317)	10-Jan-18	1.2	1.3	-0.1
	12-Jul-18	10.6	10.7	-0.1
	22-Oct-18	7.1	7.1	0.0
pcnDN2_BU (SN 10635061)	10-Jan-18	1.5	1.3	0.2
	12-Jul-18	10.7	10.7	0.0
	22-Oct-18	7.1	7.1	0.0
halfUP1 (SN 20097151) (SN 20322123)	3-Jan-18	0.9	0.9	0.0
	25-Apr-18	2.3	2.5	-0.2
	23-Oct-18	6.6	6.6	0.0
halfUP2 (SN 20030829)	3-Jan-18	1.2	0.9	0.3
	25-Apr-18	2.4	2.4	0.0
	14-Jul-18	11.9	11.7	0.2
	23-Oct-18	6.7	6.6	0.1

Appendix II.cont Reference temperature values and corresponding logger fix values recorded during download events in Year 10, January 01, 2018 to December 31, 2018.

Logger ID	Date	Logger Temp	Reference Temp	Error
halfDN2 (SN 10669748)	3-Jan-18	0.9	0.7	0.2
	25-Apr-18	2.2	2.2	0.0
	15-Jul-18	15.7	15.8	-0.1
	23-Oct-18	4.7	4.6	0.1
halfDN2_BU (SN 10156314)	3-Jan-18	1.0	0.7	0.3
	25-Apr-08	2.2	2.5	-0.3
	15-Jul-18	15.7	15.8	-0.1
	23-Oct-18	4.7	4.6	0.1
mobUP1 (SN 10887852)	4-Jan-18	0.8	0.5	0.3
	27-Apr-18	3.4	3.2	0.2
	11-Jul-18	14.8	14.9	-0.1
	19-Oct-18	6.9	6.9	0.0
mobUP2 (SN 10669754)	4-Jan-18	0.8	0.5	0.3
	27-Apr-18	2.7	2.7	0.0
	11-Jul-18	14.2	14.4	-0.2
	19-Oct-18	6.8	6.8	0.0
mobDN1 (SN 10676146)	4-Jan-18	0.9	0.6	0.3
	27-Apr-18	3.1	2.8	0.3
	11-Jul-18	15.2	15.6	-0.4
	19-Oct-18	7.0	6.8	0.2
mobDN1_BU (SN 10676147)	4-Jan-18	0.8	0.6	0.2
	19-Oct-18	6.9	6.8	0.1
pineUP1 (SN10669747)	4-Jan-18	0.8	0.5	0.3
	11-Jul-18	15.5	16.5	-1.0
	19-Oct-18	6.9	6.9	0.0
pineUP2 (SN 9767573)	27-Apr-18	3.3	3.3	0.0
	11-Jul-18	15.1	15.2	-0.1
	19-Oct-18	6.9	6.9	0.0
pineDN1 (SN 10156319)	4-Jan-18	0.6	0.3	0.3
	19-Oct-18	6.4	6.4	0.0
pineDN1_BU (SN 10893055)	4-Jan-18	0.6	0.3	0.3
	27-Apr-18	2.0	2.1	-0.1
	11-Jul-18	17.5	17.7	-0.2
	19-Oct-18	6.4	6.4	0.0

Appendix III.cont Reference temperature values and corresponding logger fix values recorded during download events in Year 10, January 01, 2018 to December 31, 2018.

Logger ID	Date	Logger Temp	Reference Temp	Error
pineMS1	27-Apr-18	0.5	0.6	-0.1
(SN 10893069)	11-Jul-18	16.9	16.9	0.0
pineMS2	19-Oct-18	Exp	5.6	-
(SN 20097150)				
beatMS1	11-Jul-18	20.9	21.1	-0.2
(SN 10930722)	19-Oct-18	6.2	6.5	-0.3
beatMS2	27-Apr-18	2.4	2.4	0.0
(SN 20030828)	11-Jul-18	20.4	21.1	-0.7
	19-Oct-18	7.2	6.5	0.7
pouceUP1	17-Jan-18	0.3	0.1	0.2
(SN 10635062)	11-Jul-18	18.3	18.1	0.2
	18-Oct-18	7.6	7.6	0.0
pouceUP2	17-Jan-18	0.3	0.2	0.1
(SN 10893068)	11-Jul-18	18.0	18.2	-0.2

APPENDIX II

DOWNLOAD INFORMATION FORMS

BC HYDRO PEACE RIVER TEMPERATURE MONITORING - DOWNLOAD INFORMATION FORM										
SITE ID	gmsUP1		LOCATION			GMS Forebay		BANK		
LOGGER TYPE	Tidbit		LOGGER SERIAL #			10676155		UTM	548841	6209022
DOWNLOAD DATE	19	Apr	2018	DOWNLOAD TIME			13:19		CREW	BC TE
TEST RECORDER TYPE	YSI		WATER TEMP	0.8	AIR TEMP	9	ICE CONDITIONS		Winter Ice Cover	
LOGGER CONDITIONS										
WATER DEPTH	100	cm	DISLODGED	no	REASON					
BURIED	no		FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER			cm	TETHER TYPE	steel buoy
COMMENTS										
Relaunch in April 19, 2018 failed due to faulty shuttle										
Relaunched April 25, 2018 with new shuttle										
RPL#19										
No data April 20-25 due to faulty shuttle										
SITE ID	gmsUP2		LOCATION			GMS Forebay		BANK		
LOGGER TYPE	Tidbit		LOGGER SERIAL #			10676160		UTM	548841	6209022
DOWNLOAD DATE	19	Apr	2018	DOWNLOAD TIME			13:14		CREW	BC TE
TEST RECORDER TYPE	YSI		WATER TEMP	1.1	AIR TEMP	9	ICE CONDITIONS		Winter Ice Cover	
LOGGER CONDITIONS										
WATER DEPTH	1000		DISLODGED	no	REASON					
BURIED	no		FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER			cm	TETHER TYPE	steel buoy
COMMENTS										
Relaunch failed in Jan 2018 due to faulty shuttle.										
Relaunched April 25, 2018 with new shuttle										
RPL#20										
SITE ID	gmsDN2		LOCATION			GMS Tailrace RDB		BANK		north
LOGGER TYPE	Tidbit		LOGGER SERIAL #			10669739		UTM	548828	6207836
DOWNLOAD DATE	30	Apr	2018	DOWNLOAD TIME			9:48		CREW	BC TE
TEST RECORDER TYPE	YSI		WATER TEMP	2.6	AIR TEMP	9	ICE CONDITIONS		none	
LOGGER CONDITIONS										
WATER DEPTH	150	cm	DISLODGED	no	REASON					
BURIED	no		FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER			cm	TETHER TYPE	rock
COMMENTS										
Back-up logger gmsDN2-BU 2038614 in same capsule 09:49										
Both downloads indicated as OK but no data due to faulty shuttle relaunch in January 2018										
Cable ok (stainless steel cable section attached to galvanized cable around rock)										
Primary Logger-Rpl #11, SN 10669739 @ 09:48										
SITE ID	gmsDN1		LOCATION			GMS Tailrace LDB		BANK	south	
LOGGER TYPE	Tidbit		LOGGER SERIAL #			10635063		UTM	548881	6207761
DOWNLOAD DATE	30	Apr	2018	DOWNLOAD TIME			10:00:05		CREW	BC TE
TEST RECORDER TYPE	YSI		WATER TEMP	2.4	AIR TEMP	9	ICE CONDITIONS		none	
LOGGER CONDITIONS										
WATER DEPTH	200	cm	DISLODGED	no	REASON					
BURIED	no		FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER			cm	TETHER TYPE	rock
COMMENTS										
Back-up logger gmsDN1-BU 2038613 in same capsule 10:01										
Both downloads indicated as OK but no data due to faulty shuttle relaunch in January 2018										
cable ok (stainless steel cable section attached to galvanized cable around rock)										
Primary logger = gmsDN1-RPL#7, SN10635063 @ 10:00:15										

BC HYDRO PEACE RIVER TEMPERATURE MONITORING - DOWNLOAD INFORMATION FORM

SITE ID	pcnUP1	LOCATION	PCN Forebay		BANK	north		
LOGGER TYPE	Tidbit	LOGGER SERIAL #	10635067		UTM	562710	6204068	
DOWNLOAD DATE	30	Apr	2018	DOWNLOAD TIME	8:39		CREW	BC TE
TEST RECORDER TYPE	YSI	WATER TEMP	2.6	AIR TEMP	5.0	ICE CONDITIONS	none	

LOGGER CONDITIONS

WATER DEPTH	100	cm	DISLODGED	no	REASON			
BURIED	no	FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER	cm	TETHER TYPE	log boom	

COMMENTS

Download indicated as OK but no data due to failed launch in Jan 2018 due to defective shuttle
 all stainless steel cable ok
 Rpl #10, SN 10635067

SITE ID	pcnDN2	LOCATION	PCN Tailrace		BANK	north		
LOGGER TYPE	Tidbit	LOGGER SERIAL #	10156317		UTM	562803	6204854	
DOWNLOAD DATE	30	Apr	2018	DOWNLOAD TIME	8:55		CREW	BC TE
TEST RECORDER TYPE	YSI	WATER TEMP	2.5	AIR TEMP	5.0	ICE CONDITIONS	none	

LOGGER CONDITIONS

WATER DEPTH	150	cm	DISLODGED	no	REASON			
BURIED	no	FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER	cm	TETHER TYPE	rock	

COMMENTS

Download indicated as OK but no data due to failed launch in Jan 2018 due to defective shuttle
 all stainless steel cable ok
 RPL# 2, SN10156317

SITE ID	pcnDN2_BU	LOCATION	PCN Tailrace		BANK	north		
LOGGER TYPE	Tidbit	LOGGER SERIAL #	10635061		UTM	562803	6204854	
DOWNLOAD DATE	30	Apr	2018	DOWNLOAD TIME	8:58		CREW	BC TE
TEST RECORDER TYPE	YSI	WATER TEMP	2.5	AIR TEMP	5.0	ICE CONDITIONS	none	

LOGGER CONDITIONS

WATER DEPTH	150	cm	DISLODGED	no	REASON			
BURIED	no	FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER	cm	TETHER TYPE	rock	

COMMENTS

Download OK
 All stainless steel cable ok
 Anchored to same rock as pcnDN2
 Rpl #9, SN10635061

SITE ID		LOCATION		BANK			
LOGGER TYPE		LOGGER SERIAL #		UTM			
DOWNLOAD DATE		DOWNLOAD TIME		CREW			
TEST RECORDER TYPE		WATER TEMP		AIR TEMP		ICE CONDITIONS	

LOGGER CONDITIONS

WATER DEPTH		cm	DISLODGED		REASON			
BURIED		FUNCTIONAL		IF DRY, HEIGHT ABOVE WATER	cm	TETHER TYPE		

COMMENTS

BC HYDRO PEACE RIVER TEMPERATURE MONITORING - DOWNLOAD INFORMATION FORM

SITE ID	halfUP2	LOCATION	u/s of Half way River		BANK	north		
LOGGER TYPE	Tidbit	LOGGER SERIAL #	20030829		UTM	595569	6230541	
DOWNLOAD DATE	25	Apr	2018	DOWNLOAD TIME	11:47		CREW	BC TE
TEST RECORDER TYPE	YSI	WATER TEMP	2.4	AIR TEMP	10	ICE CONDITIONS	none	

LOGGER CONDITIONS

WATER DEPTH	150	cm	DISLODGED	no	REASON			
BURIED	no	FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER		cm	TETHER TYPE	spruce

COMMENTS

RPL# 33
 Download OK
 Stainless cable OK, frayed 1/4" cable on shore repaired
 River very low

SITE ID	halfUP1	LOCATION	u/s of Half way River		BANK	south		
LOGGER TYPE	Tidbit	LOGGER SERIAL #	20097151		UTM	595165	6230094	
DOWNLOAD DATE	25	Apr	2018	DOWNLOAD TIME	12:05		CREW	BC TE
TEST RECORDER TYPE	YSI	WATER TEMP	2.5	AIR TEMP	10	ICE CONDITIONS	none	

LOGGER CONDITIONS

WATER DEPTH	200	cm	DISLODGED	no	REASON			
BURIED	no	FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER		cm	TETHER TYPE	spruce tree

COMMENTS

RPL# 34
 download OK
 cable OK

SITE ID	halfDN2	LOCATION	d/s of Half way River		BANK	north		
LOGGER TYPE	Tidbit	LOGGER SERIAL #	10669748		UTM	598198	6232169	
DOWNLOAD DATE	25	Apr	2018	DOWNLOAD TIME	12:22		CREW	BC TE
TEST RECORDER TYPE	YSI	WATER TEMP	2.2	AIR TEMP	10	ICE CONDITIONS	none	

LOGGER CONDITIONS

WATER DEPTH	100	cm	DISLODGED	no	REASON			
BURIED	no	FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER		cm	TETHER TYPE	balsam pop

COMMENTS

water very low
 download OK
 stainless steel cable OK
 Rpl #15, SN 10669748

SITE ID	halfDN2_BU	LOCATION	d/s of Half way River		BANK	north		
LOGGER TYPE	Tidbit	LOGGER SERIAL #	10156314		UTM	598179	6263144	
DOWNLOAD DATE	25	Apr	2018	DOWNLOAD TIME	12:23		CREW	BC TE
TEST RECORDER TYPE	YSI	WATER TEMP	2.2	AIR TEMP	5	ICE CONDITIONS	none	

LOGGER CONDITIONS

WATER DEPTH	100	cm	DISLODGED	no	REASON			
BURIED	no	FUNCTIONAL	dry	IF DRY, HEIGHT ABOVE WATER	80	cm	TETHER TYPE	balsam pop

COMMENTS

water very low
 download OK
 stainless steel cable OK

BC HYDRO PEACE RIVER TEMPERATURE MONITORING - DOWNLOAD INFORMATION FORM

SITE ID	mobUP2	LOCATION	u/s of Moberly River		BANK	north		
LOGGER TYPE	Tidbit	LOGGER SERIAL #	10669754		UTM	627501	6232563	
DOWNLOAD DATE	27	Apr	2018	DOWNLOAD TIME	9:55		CREW	BC TE
TEST RECORDER TYPE	YSI	WATER TEMP	2.7	AIR TEMP	10.0	ICE CONDITIONS	none	

LOGGER CONDITIONS

WATER DEPTH	100	cm	DISLODGED	no	REASON			
BURIED	no	FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER	cm	TETHER TYPE	spruce	

COMMENTS

download Ok
 stainless steel cable OK
 Rpl #16, SN 10669754 (replaced RPL# 12)

SITE ID	mobUP1	LOCATION	u/s of Moberly River		BANK	south		
LOGGER TYPE	Tidbit	LOGGER SERIAL #	10887852		UTM	627158	6232349	
DOWNLOAD DATE	27	Apr	2018	DOWNLOAD TIME	10:02		CREW	BC TE
TEST RECORDER TYPE	YSI	WATER TEMP	3.2	AIR TEMP	10.0	ICE CONDITIONS	none	

LOGGER CONDITIONS

WATER DEPTH		cm	DISLODGED	yes	REASON	ice		
BURIED	no	FUNCTIONAL	dry	IF DRY, HEIGHT ABOVE WATER	10	cm	TETHER TYPE	alder

COMMENTS

RPL#21-10887852
 pulled to shore by persons unknown and at water's edge
 download ok

SITE ID	mobDN1_BU	LOCATION	d/s of Moberly River		BANK	south		
LOGGER TYPE	Tidbit	LOGGER SERIAL #	10676147		UTM	630402	6229275	
DOWNLOAD DATE	27	Apr	2018	DOWNLOAD TIME	10:28		CREW	BC TE
TEST RECORDER TYPE	YSI	WATER TEMP	2.8	AIR TEMP	10.0	ICE CONDITIONS	none	

LOGGER CONDITIONS

WATER DEPTH	100	cm	DISLODGED	yes	REASON	ice		
BURIED	no	FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER	cm	TETHER TYPE	alder	

COMMENTS

download indicated as OK but no data due to faulty relaunch and defective shuttle in January 2018
 partially swung to shore but still wet
 RPL#18

SITE ID	mobDN1	LOCATION	d/s of Moberly River		BANK	south		
LOGGER TYPE	Tidbit	LOGGER SERIAL #	10376146		UTM	630583	6229281	
DOWNLOAD DATE	27	Apr	2018	DOWNLOAD TIME	10:22		CREW	BC TE
TEST RECORDER TYPE	YSI	WATER TEMP	2.8	AIR TEMP	10.0	ICE CONDITIONS	none	

LOGGER CONDITIONS

WATER DEPTH		cm	DISLODGED	yes	REASON	ice		
BURIED	no	FUNCTIONAL	dry	IF DRY, HEIGHT ABOVE WATER	20	cm	TETHER TYPE	spruce

COMMENTS

recently swung to shore by ice
 download OK
 Rpl # 17, SN 10669746

BC HYDRO PEACE RIVER TEMPERATURE MONITORING - DOWNLOAD INFORMATION FORM											
SITE ID	pineUP2	LOCATION	u/s of Pine River			BANK		north			
LOGGER TYPE	Tidbit	LOGGER SERIAL #	9767573			UTM	641653	6225304			
DOWNLOAD DATE	27	Apr	2018	DOWNLOAD TIME	10:52		CREW	BC TE			
TEST RECORDER TYPE	YSI	WATER TEMP	3.3	AIR TEMP	10.0	ICE CONDITIONS	none				
LOGGER CONDITIONS											
WATER DEPTH	200	cm	DISLODGED	no	REASON						
BURIED	no	FUNCTIONAL	w et	IF DRY, HEIGHT ABOVE WATER		cm	TETHER TYPE	balsam pop			
COMMENTS											
download OK											
Stainless steel cable OK											
labelled as halfUP1R											
SITE ID	pineUP1	LOCATION	u/s of Pine River			BANK		south			
LOGGER TYPE	Tidbit	LOGGER SERIAL #	10669747			UTM	641034	6225372			
DOWNLOAD DATE	27	Apr	2018	DOWNLOAD TIME	11:00		CREW	BC TE			
TEST RECORDER TYPE	YSI	WATER TEMP	3.9	AIR TEMP	10.0	ICE CONDITIONS	none				
LOGGER CONDITIONS											
WATER DEPTH	100	cm	DISLODGED	no	REASON						
BURIED	no	FUNCTIONAL	w et	IF DRY, HEIGHT ABOVE WATER		cm	TETHER TYPE	alder			
COMMENTS											
download indicated as OK but no data due to failed relaunch in Jan 2018 and defective shuttle											
Rpl # 14, SN 10669747											
Stainless steel cable OK											
SITE ID	pineDN1_BU	LOCATION	d/s of Pine River			BANK		south			
LOGGER TYPE	Tidbit	LOGGER SERIAL #	10893055			UTM	648362	6222823			
DOWNLOAD DATE	27	Apr	2018	DOWNLOAD TIME	13:28		CREW	BC TE			
TEST RECORDER TYPE	YSI	WATER TEMP	2.1	AIR TEMP	12.0	ICE CONDITIONS	none				
LOGGER CONDITIONS											
WATER DEPTH	80	cm	DISLODGED	no	REASON						
BURIED	no	FUNCTIONAL	w et	IF DRY, HEIGHT ABOVE WATER		cm	TETHER TYPE	alder			
COMMENTS											
download OK											
Stainless steel cable OK											
RPL# 25											
SITE ID	pineDN1	LOCATION	d/s of Pine River			BANK		south			
LOGGER TYPE	Tidbit	LOGGER SERIAL #	10156319			UTM	648101	6222802			
DOWNLOAD DATE	28	Apr	2018	DOWNLOAD TIME	13:36		CREW	BC TE			
TEST RECORDER TYPE	YSI	WATER TEMP	2.1	AIR TEMP	12.0	ICE CONDITIONS	none				
LOGGER CONDITIONS											
WATER DEPTH	10	cm	DISLODGED	yes	REASON	ice	debris				
BURIED	no	FUNCTIONAL	w et	IF DRY, HEIGHT ABOVE WATER		cm	TETHER TYPE	alder			
COMMENTS											
download indicated as OK but no data due to failed relaunch in Jan 2018 and defective shuttle											
swung to shore recently but wet											
Stainless steel cable OK											
RPL# 1											

BC HYDRO PEACE RIVER TEMPERATURE MONITORING - DOWNLOAD INFORMATION FORM											
SITE ID	PineMS1		LOCATION	Pine River mainstem				BANK			north
LOGGER TYPE	Tidbit		LOGGER SERIAL #	10893069				UTM	641900	6223491	
DOWNLOAD DATE	27	Apr	2018	DOWNLOAD TIME	11:13				CREW	BC TE	
TEST RECORDER TYPE	YSI		WATER TEMP	0.6	AIR TEMP	12.0		ICE CONDITIONS	none		
LOGGER CONDITIONS											
WATER DEPTH	30	cm	DISLODGED		yes	REASON	ice				
BURIED	no		FUNCTIONAL		dry	IF DRY, HEIGHT ABOVE WATER		cm	TETHER TYPE	steel piling	
COMMENTS											
recently sw ung to shore by outflow ing ice											
RPL# 28											
down load ok											
SITE ID	PineMS2		LOCATION	Pine River mainstem				BANK			north
LOGGER TYPE	Tidbit		LOGGER SERIAL #	10887856				UTM	641677	6223590	
DOWNLOAD DATE	27	Apr	2018	DOWNLOAD TIME	11:25				CREW	BC TE	
TEST RECORDER TYPE	YSI		WATER TEMP	0.6	AIR TEMP	12.0		ICE CONDITIONS	none		
LOGGER CONDITIONS											
WATER DEPTH		cm	DISLODGED		yes	REASON	ice				
BURIED			FUNCTIONAL			IF DRY, HEIGHT ABOVE WATER		cm	TETHER TYPE	balsam pop	
COMMENTS											
Anchor and capsule stripped from anchor cable by ice, logger not recovered											
all new stainless cable											
RPL#23 lost - Replaced w ith Logger #35 SN20097150											
SITE ID	beatMS1		LOCATION	Beatton R mainstem				BANK	east		
LOGGER TYPE	Tidbit		LOGGER SERIAL #	20332122				UTM	663101	6220759	
DOWNLOAD DATE	27	April	2018	DOWNLOAD TIME	12:49				CREW	BC TE	
TEST RECORDER TYPE	YSI		WATER TEMP	2.4	AIR TEMP	13.0		ICE CONDITIONS	none		
LOGGER CONDITIONS											
WATER DEPTH	150	cm	DISLODGED		yes	REASON	ice debris				
BURIED			FUNCTIONAL	w et		IF DRY, HEIGHT ABOVE WATER		cm	TETHER TYPE	birch	
COMMENTS											
logger cable snapped and logger (RPL# 29, S/N10930722) and housing are gone											
replaced w ith RPL# 36, S/N 20332122 at same location on Apr 28, 2018											
SITE ID	beatMS2		LOCATION	Beatton R mainstem				BANK	east		
LOGGER TYPE	Tidbit		LOGGER SERIAL #	20030828				UTM	663121	6221232	
DOWNLOAD DATE	27	April	2018	DOWNLOAD TIME	12:17				CREW	BC TE	
TEST RECORDER TYPE	YSI		WATER TEMP	2.4	AIR TEMP	12.0		ICE CONDITIONS	none		
LOGGER CONDITIONS											
WATER DEPTH	100	cm	DISLODGED	no		REASON					
BURIED	no		FUNCTIONAL	w et		IF DRY, HEIGHT ABOVE WATER		cm	TETHER TYPE	birch	
COMMENTS											
RPL# 32, S/N20030828 (at NEW location (10.663121.6221232) on Apr 28, 2017)											

BC HYDRO PEACE RIVER TEMPERATURE MONITORING - DOWNLOAD INFORMATION FORM												
SITE ID	pouceUP1		LOCATION	Peace R mainstem u/s of Pouce Coupe R				BANK	south			
LOGGER TYPE	Tidbit		LOGGER SERIAL #	10635062				UTM	11	316873	6225211	
DOWNLOAD DATE	27	Apr	2018	DOWNLOAD TIME					CREW	BC TE		
TEST RECORDER TYPE	YSI		WATER TEMP	2.0	AIR TEMP	12.0		ICE CONDITIONS	none			
LOGGER CONDITIONS												
WATER DEPTH			cm	DISLOGGED			yes	REASON	ice			
BURIED			FUNCTIONAL			IF DRY, HEIGHT ABOVE WATER			cm	TETHER TYPE	birch	
COMMENTS												
all new stainless cable												
RPL#26 lost and replaced with RPL #6 (10635062)												
cable parted at logger end												
SITE ID	pouceUP2		LOCATION	Peace R mainstem u/s of Pouce Coupe R				BANK	north			
LOGGER TYPE	Tidbit		LOGGER SERIAL #	10893068				UTM	11	316146	6226036	
DOWNLOAD DATE	27	Apr	2018	DOWNLOAD TIME	16:34				CREW	BC TE		
TEST RECORDER TYPE	YSI		WATER TEMP	2.0	AIR TEMP	12.0		ICE CONDITIONS	none			
LOGGER CONDITIONS												
WATER DEPTH	150	cm	DISLOGGED	no		REASON						
BURIED	yes	FUNCTIONAL	wet		IF DRY, HEIGHT ABOVE WATER			cm	TETHER TYPE	spruce		
COMMENTS												
download indicated as OK but no data due to failed relaunch in Jan 2018 and defective shuttle												
all new stainless cable												
RPL#27												
SITE ID			LOCATION					BANK				
LOGGER TYPE			LOGGER SERIAL #					UTM				
DOWNLOAD DATE			DOWNLOAD TIME					CREW				
TEST RECORDER TYPE			WATER TEMP			AIR TEMP			ICE CONDITIONS			
LOGGER CONDITIONS												
WATER DEPTH			cm	DISLOGGED			REASON					
BURIED	no	FUNCTIONAL	wet		IF DRY, HEIGHT ABOVE WATER			cm	TETHER TYPE			
COMMENTS												
SITE ID			LOCATION					BANK				
LOGGER TYPE			LOGGER SERIAL #					UTM				
DOWNLOAD DATE			DOWNLOAD TIME					CREW				
TEST RECORDER TYPE			WATER TEMP			AIR TEMP			ICE CONDITIONS			
LOGGER CONDITIONS												
WATER DEPTH			cm	DISLOGGED			REASON					
BURIED		FUNCTIONAL	wet		IF DRY, HEIGHT ABOVE WATER			cm	TETHER TYPE			
COMMENTS												

BC HYDRO PEACE RIVER TEMPERATURE MONITORING - DOWNLOAD INFORMATION FORM

SITE ID	gmsUP1	LOCATION	GMS Forebay			BANK		
LOGGER TYPE	Tidbit	LOGGER SERIAL #	10676155			UTM	548841	6209022
DOWNLOAD DATE	12	Jul	2018	DOWNLOAD TIME	12:11		CREW	BC TE
TEST RECORDER TYPE	YSI	WATER TEMP	16.4	AIR TEMP	21	ICE CONDITIONS	none	

LOGGER CONDITIONS

WATER DEPTH	100	cm	DISLODGED	no	REASON			
BURIED	no	FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER	cm	TETHER TYPE	steel buoy	

COMMENTS

Download OK
Stainless steel cable OK
RPL#19

SITE ID	gmsUP2	LOCATION	GMS Forebay			BANK		
LOGGER TYPE	Tidbit	LOGGER SERIAL #	10676160			UTM	548841	6209022
DOWNLOAD DATE	12	July	2018	DOWNLOAD TIME	12:13		CREW	BC TE
TEST RECORDER TYPE	YSI	WATER TEMP	13.8	AIR TEMP	21	ICE CONDITIONS	none	

LOGGER CONDITIONS

WATER DEPTH	1000	cm	DISLODGED	no	REASON			
BURIED	no	FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER	cm	TETHER TYPE	steel buoy	

COMMENTS

Download OK
Stainless steel cable OK
RPL#20

SITE ID	gmsDN2	LOCATION	GMS Tailrace RDB			BANK		north
LOGGER TYPE	Tidbit	LOGGER SERIAL #	10669739			UTM	548828	6207836
DOWNLOAD DATE	12	Jul	2018	DOWNLOAD TIME	11:01		CREW	BC TE
TEST RECORDER TYPE	YSI	WATER TEMP	11.9	AIR TEMP	24	ICE CONDITIONS	none	

LOGGER CONDITIONS

WATER DEPTH	120	cm	DISLODGED	no	REASON			
BURIED	no	FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER	cm	TETHER TYPE	rock	

COMMENTS

Back-up logger gmsDN2-BU 2038614 in same capsule 11:01, replaced with RPL#37 S/N 20332121
both downloads OK
cable ok (stainless steel cable section attached to galvanized cable around rock)
Primary Logger-Rpl #11, SN 10669739

SITE ID	gmsDN1	LOCATION	GMS Tailrace LDB			BANK	south	
LOGGER TYPE	Tidbit	LOGGER SERIAL #	10635063			UTM	548881	6207761
DOWNLOAD DATE	12	Jul	2018	DOWNLOAD TIME	11:15		CREW	BC TE
TEST RECORDER TYPE	merc	WATER TEMP	11.9	AIR TEMP	24	ICE CONDITIONS	none	

LOGGER CONDITIONS

WATER DEPTH	100	cm	DISLODGED	no	REASON			
BURIED	no	FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER	cm	TETHER TYPE	rock	

COMMENTS

Back-up logger gmsDN1-BU 2038613 in same capsule 11:15
both downloads OK
cable ok (stainless steel cable section attached to galvanized cable around rock)
Primary Logger gmsDN1-RPL#7

BC HYDRO PEACE RIVER TEMPERATURE MONITORING - DOWNLOAD INFORMATION FORM

SITE ID	pcnUP1	LOCATION	PCN Forebay			BANK	north	
LOGGER TYPE	Tidbit	LOGGER SERIAL #	10635067			UTM	562684	6204075
DOWNLOAD DATE	12	Jul	2018	DOWNLOAD TIME	9:58		CREW	BC TE
TEST RECORDER TYPE	YSI	WATER TEMP	17.0	AIR TEMP	16.0		ICE CONDITIONS	none

LOGGER CONDITIONS

WATER DEPTH	100	cm	DISLODGED	no	REASON			
BURIED	no	FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER		cm	TETHER TYPE	log boom

COMMENTS

download OK
 all stainless steel cable ok
 Rpl #10, SN 10635067

SITE ID	pcnDN2	LOCATION	PCN Tailrace			BANK	north	
LOGGER TYPE	Tidbit	LOGGER SERIAL #	10156317			UTM	562803	6204854
DOWNLOAD DATE	12	Jul	2018	DOWNLOAD TIME	9:39		CREW	BC TE
TEST RECORDER TYPE	YSI	WATER TEMP	10.7	AIR TEMP	16.0		ICE CONDITIONS	none

LOGGER CONDITIONS

WATER DEPTH	100	cm	DISLODGED	no	REASON			
BURIED	no	FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER		cm	TETHER TYPE	rock

COMMENTS

download OK
 all stainless steel cable ok
 RPL# 2

SITE ID	pcnDN2_BU	LOCATION	PCN Tailrace			BANK	north	
LOGGER TYPE	Tidbit	LOGGER SERIAL #	10635061			UTM	562803	6204854
DOWNLOAD DATE	12	Jul	2018	DOWNLOAD TIME	9:42		CREW	BC TE
TEST RECORDER TYPE	YSI	WATER TEMP	10.7	AIR TEMP	16.0		ICE CONDITIONS	none

LOGGER CONDITIONS

WATER DEPTH	100	cm	DISLODGED	no	REASON			
BURIED	no	FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER		cm	TETHER TYPE	rock

COMMENTS

download OK
 all stainless steel cable ok
 Anchored to same rock as pcnDN2
 Rpl #9, SN10635061

SITE ID		LOCATION				BANK		
LOGGER TYPE		LOGGER SERIAL #				UTM		
DOWNLOAD DATE				DOWNLOAD TIME		CREW		
TEST RECORDER TYPE		WATER TEMP		AIR TEMP		ICE CONDITIONS		

LOGGER CONDITIONS

WATER DEPTH		cm	DISLODGED		REASON			
BURIED		FUNCTIONAL		IF DRY, HEIGHT ABOVE WATER		cm	TETHER TYPE	

COMMENTS

BC HYDRO PEACE RIVER TEMPERATURE MONITORING - DOWNLOAD INFORMATION FORM										
SITE ID	halfUP2	LOCATION	u/s of Halfway River			BANK	north			
LOGGER TYPE	Tidbit	LOGGER SERIAL #	20030829			UTM	595569	6230541		
DOWNLOAD DATE	14	Jul	2018	DOWNLOAD TIME	9:36			CREW	BC TE	
TEST RECORDER TYPE	YSI	WATER TEMP	11.7	AIR TEMP	20	ICE CONDITIONS	none			
LOGGER CONDITIONS										
WATER DEPTH	90	cm	DISLODGED	no	REASON					
BURIED	no	FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER	cm	TETHER TYPE	spruce			
COMMENTS										
download OK										
cable OK										
RPL#33										
SITE ID	halfUP1	LOCATION	u/s of Halfway River			BANK	south			
LOGGER TYPE	Tidbit	LOGGER SERIAL #				UTM	595165	6230094		
DOWNLOAD DATE	14	Jul	2018	DOWNLOAD TIME				CREW	BC TE	
TEST RECORDER TYPE	YSI	WATER TEMP	17.4	AIR TEMP	15	ICE CONDITIONS	none			
LOGGER CONDITIONS										
WATER DEPTH		cm	DISLODGED	yes	REASON	tampered				
BURIED		FUNCTIONAL		IF DRY, HEIGHT ABOVE WATER	cm	TETHER TYPE	spruce tree			
COMMENTS										
cable, anchor and logger stolen										
replaced w ith RPL #39 (SN 20322123) at 09:20										
SITE ID	halfDN2	LOCATION	d/s of Halfway River			BANK	north			
LOGGER TYPE	Tidbit	LOGGER SERIAL #	10669748			UTM	598198	6232169		
DOWNLOAD DATE	15	Jul	2018	DOWNLOAD TIME	9:55			CREW	BC TE	
TEST RECORDER TYPE	YSI	WATER TEMP	15.8	AIR TEMP	20	ICE CONDITIONS	none			
LOGGER CONDITIONS										
WATER DEPTH		cm	DISLODGED	no	REASON					
BURIED	no	FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER	cm	TETHER TYPE	balsam pop			
COMMENTS										
download ok										
stainless steel cable OK										
Rpl #15, SN 10669748										
water extremely low and very little flow at site										
moved downstream to new location at 10.598313.6232378										
SITE ID	halfDN2_BU	LOCATION	d/s of Halfway River			BANK	north			
LOGGER TYPE	Tidbit	LOGGER SERIAL #	10156314			UTM	598179	6263144		
DOWNLOAD DATE	15	July	2018	DOWNLOAD TIME	10:00			CREW	BC TE	
TEST RECORDER TYPE	YSI	WATER TEMP	15.8	AIR TEMP	20	ICE CONDITIONS	none			
LOGGER CONDITIONS										
WATER DEPTH	100	cm	DISLODGED	no	REASON					
BURIED	no	FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER	cm	TETHER TYPE	balsam pop			
COMMENTS										
labelled "halfDN2_BU"										
stainless steel cable OK										
download ok										
extremely low water and no water movement										
moved downstream to 10.598286.6232337										

BC HYDRO PEACE RIVER TEMPERATURE MONITORING - DOWNLOAD INFORMATION FORM

SITE ID	mobUP2	LOCATION	u/s of Moberly River			BANK	north	
LOGGER TYPE	Tidbit	LOGGER SERIAL #	10669754			UTM	627501	6232563
DOWNLOAD DATE	11 Jul 2018	DOWNLOAD TIME	9:47			CREW	BC TE	
TEST RECORDER TYPE	YSI	WATER TEMP	14.4	AIR TEMP	22.0	ICE CONDITIONS	none	

LOGGER CONDITIONS

WATER DEPTH	30	cm	DISLODGED	no	REASON			
BURIED	no	FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER	cm	TETHER TYPE	spruce	

COMMENTS

RPL#16, SN 10669754
 download ok
 water very low but logger wet

SITE ID	mobUP1	LOCATION	u/s of Moberly River			BANK	south	
LOGGER TYPE	Tidbit	LOGGER SERIAL #	10887852			UTM	627158	6232349
DOWNLOAD DATE	11 Jul 2018	DOWNLOAD TIME	9:56			CREW	BC TE	
TEST RECORDER TYPE	YSI	WATER TEMP	14.9	AIR TEMP	22.0	ICE CONDITIONS	none	

LOGGER CONDITIONS

WATER DEPTH	60	cm	DISLODGED	no	REASON			
BURIED	no	FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER	cm	TETHER TYPE	alder	

COMMENTS

RPL# 21, SN10887852
 stainless cable ok
 download ok
 anchor tree has died, removed cable and relocated upstream to a new tree

SITE ID	mobDN1_BU	LOCATION	d/s of Moberly River			BANK	south	
LOGGER TYPE	Tidbit	LOGGER SERIAL #	10676147			UTM	630875	6229275
DOWNLOAD DATE	11 Jul 2018	DOWNLOAD TIME	10:32			CREW	BC TE	
TEST RECORDER TYPE	YSI	WATER TEMP	15.5	AIR TEMP	22.0	ICE CONDITIONS	none	

LOGGER CONDITIONS

WATER DEPTH	30	cm	DISLODGED	yes	REASON	tampered		
BURIED	no	FUNCTIONAL	dry	IF DRY, HEIGHT ABOVE WATER	cm	TETHER TYPE	alder	

COMMENTS

RPL# 18
 download OK
 partially pulled to shore by persons unknown
 appears to be wet intermittently

SITE ID	mobDN1	LOCATION	d/s of Moberly River			BANK	south	
LOGGER TYPE	Tidbit	LOGGER SERIAL #	10676146			UTM	630776	6229287
DOWNLOAD DATE	11 Jul 2018	DOWNLOAD TIME	10:20			CREW	BC TE	
TEST RECORDER TYPE	YSI	WATER TEMP	15.5	AIR TEMP	22.0	ICE CONDITIONS	none	

LOGGER CONDITIONS

WATER DEPTH	40	cm	DISLODGED	no	REASON			
BURIED	no	FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER	cm	TETHER TYPE	alder	

COMMENTS

download OK
 Rpl # 17, SN 10676146
 water very low

BC HYDRO PEACE RIVER TEMPERATURE MONITORING - DOWNLOAD INFORMATION FORM												
SITE ID	pineUP2	LOCATION				u/s of Pine River	BANK		north			
LOGGER TYPE	Tidbit	LOGGER SERIAL #				9767573	UTM	641653	6225304			
DOWNLOAD DATE	11	Jul	2018	DOWNLOAD TIME		11:02	CREW	BC TE				
TEST RECORDER TYPE	YSI	WATER TEMP		15.2	AIR TEMP		24.0	ICE CONDITIONS		none		
LOGGER CONDITIONS												
WATER DEPTH	100	cm	DISLODGED	no	REASON							
BURIED	yes	FUNCTIONAL		wet	IF DRY, HEIGHT ABOVE WATER		cm	TETHER TYPE	balsam pop			
COMMENTS												
download OK												
Stainless steel cable OK												
labelled as "halfUP1R"												
SITE ID	pineUP1	LOCATION				u/s of Pine River	BANK		south			
LOGGER TYPE	Tidbit	LOGGER SERIAL #				10669747	UTM	641034	6225372			
DOWNLOAD DATE	11	Jul	2018	DOWNLOAD TIME		10:53	CREW	BC TE				
TEST RECORDER TYPE	YSI	WATER TEMP		15.5	AIR TEMP		24.0	ICE CONDITIONS		none		
LOGGER CONDITIONS												
WATER DEPTH	100	cm	DISLODGED	no	REASON							
BURIED	no	FUNCTIONAL		wet	IF DRY, HEIGHT ABOVE WATER		cm	TETHER TYPE	alder			
COMMENTS												
download OK												
Rpl # 14, SN 10669747												
Stainless steel cable OK												
SITE ID	pineDN1_BU	LOCATION				d/s of Pine River	BANK		south			
LOGGER TYPE	Tidbit	LOGGER SERIAL #				10893055	UTM	648362	6222823			
DOWNLOAD DATE	11	Jul	2018	DOWNLOAD TIME		13:09	CREW	BC TE				
TEST RECORDER TYPE	YSI	WATER TEMP		17.7	AIR TEMP		24.0	ICE CONDITIONS		none		
LOGGER CONDITIONS												
WATER DEPTH	100	cm	DISLODGED	no	REASON							
BURIED	no	FUNCTIONAL		wet	IF DRY, HEIGHT ABOVE WATER		cm	TETHER TYPE	alder			
COMMENTS												
RPL# 25												
download ok												
new stainless steel cable												
SITE ID	pineDN1	LOCATION				d/s of Pine River	BANK		south			
LOGGER TYPE	Tidbit	LOGGER SERIAL #				10156319	UTM	648101	6222802			
DOWNLOAD DATE	11	Jul	2018	DOWNLOAD TIME		13:28	CREW	BC TE				
TEST RECORDER TYPE	YSI	WATER TEMP		17.7	AIR TEMP		24.0	ICE CONDITIONS		none		
LOGGER CONDITIONS												
WATER DEPTH		cm	DISLODGED	yes	REASON			debris				
BURIED	no	FUNCTIONAL		dry	IF DRY, HEIGHT ABOVE WATER		30	cm	TETHER TYPE	alder		
COMMENTS												
RPL#1												
download OK												
swung to shore by debris and exposed												
Stainless steel cable OK												
moved to new location 10.648073.6222796												

BC HYDRO PEACE RIVER TEMPERATURE MONITORING - DOWNLOAD INFORMATION FORM											
SITE ID	PineMS1		LOCATION	Pine River mainstem				BANK			north
LOGGER TYPE	Tidbit		LOGGER SERIAL #	10893069				UTM	641762		6223549
DOWNLOAD DATE	11	July	2018	DOWNLOAD TIME	11:14				CREW	BC TE	
TEST RECORDER TYPE	YSI		WATER TEMP	16.9	AIR TEMP	24.0		ICE CONDITIONS	none		
LOGGER CONDITIONS											
WATER DEPTH	100	cm	DISLODGED	no		REASON	debris				
BURIED	no		FUNCTIONAL	wet		IF DRY, HEIGHT ABOVE WATER	cm		TETHER TYPE	steel piling	
COMMENTS											
RPL# 28											
stainless cable ok											
SITE ID	PineMS2		LOCATION	Pine River mainstem				BANK			north
LOGGER TYPE	Tidbit		LOGGER SERIAL #	20097150				UTM	641677		6223590
DOWNLOAD DATE	11	July	2018	DOWNLOAD TIME	11:31				CREW	BC TE	
TEST RECORDER TYPE			WATER TEMP	16.9	AIR TEMP	24.0		ICE CONDITIONS	none		
LOGGER CONDITIONS											
WATER DEPTH			cm	DISLODGED			REASON	debris			
BURIED			FUNCTIONAL			IF DRY, HEIGHT ABOVE WATER	cm		TETHER TYPE		
COMMENTS											
anchor tree and stream bank sloughed into river, logger stranded, may have been exposed as Pine R flow s drop											
moved dow nstream to same location as pineMS1 and anchored to steel piling at 10.641762.6223599											
RPL# 35 S/N 20097150											
SITE ID	beatMS1		LOCATION	Beatton R mainstem				BANK	east		
LOGGER TYPE	Tidbit		LOGGER SERIAL #	20322122				UTM	663101		6220759
DOWNLOAD DATE	11	Jul	2018	DOWNLOAD TIME	12:24				CREW	BC TE	
TEST RECORDER TYPE	YSI		WATER TEMP	21.1	AIR TEMP	24.0		ICE CONDITIONS	none		
LOGGER CONDITIONS											
WATER DEPTH	90	cm	DISLODGED	no		REASON					
BURIED	no		FUNCTIONAL	wet		IF DRY, HEIGHT ABOVE WATER	cm		TETHER TYPE	birch	
COMMENTS											
RPL# 36											
dow nload ok											
SITE ID	beatMS2		LOCATION	Beatton R mainstem				BANK	east		
LOGGER TYPE	Tidbit		LOGGER SERIAL #	20030828				UTM	663098		6220723
DOWNLOAD DATE	11	July	2018	DOWNLOAD TIME	12:28				CREW	BC TE	
TEST RECORDER TYPE	YSI		WATER TEMP	21.1	AIR TEMP	24.0		ICE CONDITIONS	none		
LOGGER CONDITIONS											
WATER DEPTH	80	cm	DISLODGED	no		REASON					
BURIED	no		FUNCTIONAL	wet		IF DRY, HEIGHT ABOVE WATER	cm		TETHER TYPE	birch	
COMMENTS											
RPL# 32											
dow nload ok											

BC HYDRO PEACE RIVER TEMPERATURE MONITORING - DOWNLOAD INFORMATION FORM												
SITE ID	pouceUP1		LOCATION	Peace R mainstem u/s of Pouce Coupe R				BANK	south			
LOGGER TYPE	Tidbit		LOGGER SERIAL #	10635062				UTM	11	316873	6225211	
DOWNLOAD DATE	11	Jul	2018	DOWNLOAD TIME	16:18				CREW	BC TE		
TEST RECORDER TYPE	YSI		WATER TEMP	18.2	AIR TEMP	24.0		ICE CONDITIONS	none			
LOGGER CONDITIONS												
WATER DEPTH	100	cm	DISLOGGED	no		REASON						
BURIED	no	FUNCTIONAL	wet		IF DRY, HEIGHT ABOVE WATER			cm	TETHER TYPE	birch		
COMMENTS												
down load ok												
stainless cable ok												
RPL#6												
SITE ID	pouceUP2		LOCATION	Peace R mainstem u/s of Pouce Coupe R				BANK	north			
LOGGER TYPE	Tidbit		LOGGER SERIAL #	10893068				UTM	11	316146	6226036	
DOWNLOAD DATE	11	Jul	2018	DOWNLOAD TIME	16:48				CREW	BC TE		
TEST RECORDER TYPE	YSI		WATER TEMP	18.1	AIR TEMP	24.0		ICE CONDITIONS	none			
LOGGER CONDITIONS												
WATER DEPTH	150	cm	DISLOGGED	no		REASON						
BURIED	no	FUNCTIONAL	wet		IF DRY, HEIGHT ABOVE WATER			cm	TETHER TYPE	spruce		
COMMENTS												
down load ok												
Stainless cable ok												
RPL#27												
cable buried in sediment but logger w as not												
SITE ID			LOCATION					BANK				
LOGGER TYPE			LOGGER SERIAL #					UTM				
DOWNLOAD DATE				DOWNLOAD TIME					CREW			
TEST RECORDER TYPE			WATER TEMP		AIR TEMP			ICE CONDITIONS				
LOGGER CONDITIONS												
WATER DEPTH		cm	DISLOGGED			REASON						
BURIED	no	FUNCTIONAL	wet		IF DRY, HEIGHT ABOVE WATER			cm	TETHER TYPE			
COMMENTS												
SITE ID			LOCATION					BANK				
LOGGER TYPE			LOGGER SERIAL #					UTM				
DOWNLOAD DATE				DOWNLOAD TIME					CREW			
TEST RECORDER TYPE			WATER TEMP		AIR TEMP			ICE CONDITIONS				
LOGGER CONDITIONS												
WATER DEPTH		cm	DISLOGGED			REASON						
BURIED		FUNCTIONAL	wet		IF DRY, HEIGHT ABOVE WATER			cm	TETHER TYPE			
COMMENTS												

BC HYDRO PEACE RIVER TEMPERATURE MONITORING - DOWNLOAD INFORMATION FORM

SITE ID	gmsUP1	LOCATION	GMS Forebay			BANK		
LOGGER TYPE	Tidbit	LOGGER SERIAL #	10676155			UTM	548841	6209022
DOWNLOAD DATE	22	Oct	2018	DOWNLOAD TIME	11:21	CREW	BC TE	
TEST RECORDER TYPE	YSI	WATER TEMP	7.1	AIR TEMP	4	ICE CONDITIONS	none	

LOGGER CONDITIONS

WATER DEPTH	100	cm	DISLODGED	no	REASON			
BURIED	no	FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER		cm	TETHER TYPE	steel buoy

COMMENTS

Download OK
Stainless steel cable OK
RPL#19

SITE ID	gmsUP2	LOCATION	GMS Forebay			BANK		
LOGGER TYPE	Tidbit	LOGGER SERIAL #	10676160			UTM	548841	6209022
DOWNLOAD DATE	22	Oct	2018	DOWNLOAD TIME	11:23	CREW	BC TE	
TEST RECORDER TYPE	YSI	WATER TEMP	7.1	AIR TEMP	4	ICE CONDITIONS	none	

LOGGER CONDITIONS

WATER DEPTH	1000	cm	DISLODGED	no	REASON			
BURIED	no	FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER		cm	TETHER TYPE	steel buoy

COMMENTS

Download OK
Stainless steel cable OK
RPL#20

SITE ID	gmsDN2	LOCATION	GMS Tailrace RDB			BANK		north
LOGGER TYPE	Tidbit	LOGGER SERIAL #	10669739			UTM	548828	6207836
DOWNLOAD DATE	22	Oct	2018	DOWNLOAD TIME	12:01	CREW	BC TE	
TEST RECORDER TYPE	YSI	WATER TEMP	7.1	AIR TEMP	7	ICE CONDITIONS	none	

LOGGER CONDITIONS

WATER DEPTH	180	cm	DISLODGED	no	REASON			
BURIED	no	FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER		cm	TETHER TYPE	rock

COMMENTS

Back-up logger gmsDN2-BU RPL#37, S/N20332121 in same capsule 12:01
both downloads OK
cable ok (stainless steel cable section attached to galvanized cable around rock)
Primary Logger-Rpl #11, SN 10669739

SITE ID	gmsDN1	LOCATION	GMS Tailrace LDB			BANK		south
LOGGER TYPE	Tidbit	LOGGER SERIAL #	10635063			UTM	548881	6207761
DOWNLOAD DATE	20	Oct	2017	DOWNLOAD TIME	12:17	CREW	BC TE	
TEST RECORDER TYPE	YSI	WATER TEMP	7.1	AIR TEMP	7	ICE CONDITIONS	none	

LOGGER CONDITIONS

WATER DEPTH	200	cm	DISLODGED	no	REASON			
BURIED	no	FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER		cm	TETHER TYPE	rock

COMMENTS

Back-up logger gmsDN1-BU RPL#38 S/N2038613 in same capsule 12:18
both downloads OK
cable ok (stainless steel cable section attached to galvanized cable around rock)
Primary Logger gmsDN1-RPL#7 S/N10635063

BC HYDRO PEACE RIVER TEMPERATURE MONITORING - DOWNLOAD INFORMATION FORM

SITE ID	pcnUP1	LOCATION	PCN Forebay			BANK	north	
LOGGER TYPE	Tidbit	LOGGER SERIAL #	10635067			UTM	562684	6204075
DOWNLOAD DATE	22	Oct	2018	DOWNLOAD TIME	13:10		CREW	BC TE
TEST RECORDER TYPE	YSI	WATER TEMP	7.3	AIR TEMP	8.0	ICE CONDITIONS	none	

LOGGER CONDITIONS

WATER DEPTH	100	cm	DISLODGED	no	REASON			
BURIED	no	FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER	cm	TETHER TYPE	log boom	

COMMENTS

download OK
 all stainless steel cable ok
 Rpl #10, SN 10635067

SITE ID	pcnDN2	LOCATION	PCN Tailrace			BANK	north	
LOGGER TYPE	Tidbit	LOGGER SERIAL #	10156317			UTM	562803	6204854
DOWNLOAD DATE	22	Oct	2018	DOWNLOAD TIME	13:27		CREW	BC TE
TEST RECORDER TYPE	YSI	WATER TEMP	7.1	AIR TEMP	8.0	ICE CONDITIONS	none	

LOGGER CONDITIONS

WATER DEPTH	200	cm	DISLODGED	no	REASON			
BURIED	no	FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER	cm	TETHER TYPE	rock	

COMMENTS

download OK
 all stainless steel cable ok
 RPL# 2

SITE ID	pcnDN2_BU	LOCATION	PCN Tailrace			BANK	north	
LOGGER TYPE	Tidbit	LOGGER SERIAL #	10635061			UTM	562803	6204854
DOWNLOAD DATE	22	Oct	2018	DOWNLOAD TIME	13:30		CREW	BC TE
TEST RECORDER TYPE	YSI	WATER TEMP	7.1	AIR TEMP	8.0	ICE CONDITIONS	none	

LOGGER CONDITIONS

WATER DEPTH	200	cm	DISLODGED	no	REASON			
BURIED	no	FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER	cm	TETHER TYPE	rock	

COMMENTS

download OK
 all stainless steel cable ok
 Anchored to same rock as pcnDN2
 Rpl #9, SN10635061

SITE ID		LOCATION				BANK		
LOGGER TYPE		LOGGER SERIAL #				UTM		
DOWNLOAD DATE				DOWNLOAD TIME			CREW	
TEST RECORDER TYPE		WATER TEMP		AIR TEMP		ICE CONDITIONS		

LOGGER CONDITIONS

WATER DEPTH		cm	DISLODGED		REASON			
BURIED		FUNCTIONAL		IF DRY, HEIGHT ABOVE WATER	cm	TETHER TYPE		

COMMENTS

BC HYDRO PEACE RIVER TEMPERATURE MONITORING - DOWNLOAD INFORMATION FORM											
SITE ID	halfUP2	LOCATION	u/s of Half way River			BANK	north				
LOGGER TYPE	Tidbit	LOGGER SERIAL #	20030829			UTM	595569	6230541			
DOWNLOAD DATE	23	Oct	2018	DOWNLOAD TIME	11:44			CREW	BC TE		
TEST RECORDER TYPE	YSI	WATER TEMP	6.6	AIR TEMP	2	ICE CONDITIONS	none				
LOGGER CONDITIONS											
WATER DEPTH	150	cm	DISLODGED	no	REASON						
BURIED	no	FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER	cm	TETHER TYPE	spruce				
COMMENTS											
download OK											
cable OK											
RPL#33 S/N20030829											
partially pulled to shore but wet											
SITE ID	halfUP1	LOCATION	u/s of Half way River			BANK	south				
LOGGER TYPE	Tidbit	LOGGER SERIAL #	20322123			UTM	595165	6230094			
DOWNLOAD DATE	23	Oct	2018	DOWNLOAD TIME	12:03			CREW	BC TE		
TEST RECORDER TYPE	YSI	WATER TEMP	6.6	AIR TEMP	2	ICE CONDITIONS	none				
LOGGER CONDITIONS											
WATER DEPTH	200	cm	DISLODGED	no	REASON						
BURIED	no	FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER	cm	TETHER TYPE	spruce tree				
COMMENTS											
download OK											
cable OK											
RPL #39, SN 20322123											
SITE ID	halfDN2	LOCATION	d/s of Half way River			BANK	north				
LOGGER TYPE	Tidbit	LOGGER SERIAL #	10669748			UTM	598313	6232378			
DOWNLOAD DATE	23	Oct	2018	DOWNLOAD TIME	12:47			CREW	BC TE		
TEST RECORDER TYPE	YSI	WATER TEMP	4.6	AIR TEMP	4	ICE CONDITIONS	none				
LOGGER CONDITIONS											
WATER DEPTH	150	cm	DISLODGED	no	REASON						
BURIED	no	FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER	cm	TETHER TYPE	willow				
COMMENTS											
download ok											
stainless steel cable OK											
Rpl #15, SN 10669748											
SITE ID	halfDN2_BU	LOCATION	d/s of Half way River			BANK	north				
LOGGER TYPE	Tidbit	LOGGER SERIAL #	10156314			UTM	598286	6232337			
DOWNLOAD DATE	23	Oct	2018	DOWNLOAD TIME	12:25			CREW	BC TE		
TEST RECORDER TYPE	YSI	WATER TEMP	4.6	AIR TEMP	4	ICE CONDITIONS	none				
LOGGER CONDITIONS											
WATER DEPTH		cm	DISLODGED	yes	REASON	debris					
BURIED	no	FUNCTIONAL	dry	IF DRY, HEIGHT ABOVE WATER	cm	TETHER TYPE	willow				
COMMENTS											
stainless steel cable OK											
download ok											
pulled by debris and dry											
cable replaced with chain											

BC HYDRO PEACE RIVER TEMPERATURE MONITORING - DOWNLOAD INFORMATION FORM

SITE ID	mobUP2	LOCATION	u/s of Moberly River			BANK	north	
LOGGER TYPE	Tidbit	LOGGER SERIAL #	10669754			UTM	627501	6232563
DOWNLOAD DATE	19	Oct	2018	DOWNLOAD TIME	11:58		CREW	BC TE
TEST RECORDER TYPE	YSI	WATER TEMP	6.8	AIR TEMP	5.0	ICE CONDITIONS	none	

LOGGER CONDITIONS

WATER DEPTH	150	cm	DISLODGED	no	REASON			
BURIED	no	FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER	cm	TETHER TYPE	spruce	

COMMENTS

RPL#16, SN 10669754
 download ok

SITE ID	mobUP1	LOCATION	u/s of Moberly River			BANK	south	
LOGGER TYPE	Tidbit	LOGGER SERIAL #	10887852			UTM	627158	6232349
DOWNLOAD DATE	19	Oct	2018	DOWNLOAD TIME	12:16		CREW	BC TE
TEST RECORDER TYPE	YSI	WATER TEMP	6.9	AIR TEMP	5.0	ICE CONDITIONS	none	

LOGGER CONDITIONS

WATER DEPTH	150	cm	DISLODGED	no	REASON			
BURIED	no	FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER	cm	TETHER TYPE	alder	

COMMENTS

RPL# 21, SN10887852
 stainless cable ok
 download ok

SITE ID	mobDN1_BU	LOCATION	d/s of Moberly River			BANK	south	
LOGGER TYPE	Tidbit	LOGGER SERIAL #	10676147			UTM	630875	6229275
DOWNLOAD DATE	19	Oct	2018	DOWNLOAD TIME	12:38		CREW	BC TE
TEST RECORDER TYPE	YSI	WATER TEMP	6.8	AIR TEMP	5.0	ICE CONDITIONS	none	

LOGGER CONDITIONS

WATER DEPTH	150	cm	DISLODGED	no	REASON			
BURIED	no	FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER	cm	TETHER TYPE	alder	

COMMENTS

download OK

RPL#18

SITE ID	mobDN1	LOCATION	d/s of Moberly River			BANK	south	
LOGGER TYPE	Tidbit	LOGGER SERIAL #	10676146			UTM	630776	6229287
DOWNLOAD DATE	19	Oct	2018	DOWNLOAD TIME	12:31		CREW	BC TE
TEST RECORDER TYPE	YSI	WATER TEMP	6.8	AIR TEMP	5.0	ICE CONDITIONS	none	

LOGGER CONDITIONS

WATER DEPTH	100	cm	DISLODGED	no	REASON			
BURIED	no	FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER	cm	TETHER TYPE	alder	

COMMENTS

download OK

Rpl # 17, SN 10676146

BC HYDRO PEACE RIVER TEMPERATURE MONITORING - DOWNLOAD INFORMATION FORM											
SITE ID	pineUP2	LOCATION			u/s of Pine River	BANK		north			
LOGGER TYPE	Tidbit	LOGGER SERIAL #			9767573	UTM	641653	6225304			
DOWNLOAD DATE	19	Oct	2018	DOWNLOAD TIME	13:14	CREW	BC TE				
TEST RECORDER TYPE	YSI	WATER TEMP	6.9	AIR TEMP	7.0	ICE CONDITIONS	none				
LOGGER CONDITIONS											
WATER DEPTH	80	cm	DISLODGED	yes	REASON	tampered					
BURIED	no	FUNCTIONAL	w et	IF DRY, HEIGHT ABOVE WATER	cm	TETHER TYPE	balsam pop				
COMMENTS											
labelled as "half UP1R"											
dow nload OK											
Stainless steel cable OK											
pulled to shore but w et											
SITE ID	pineUP1	LOCATION			u/s of Pine River	BANK		south			
LOGGER TYPE	Tidbit	LOGGER SERIAL #			10669747	UTM	641034	6225372			
DOWNLOAD DATE	19	Oct	2018	DOWNLOAD TIME	13:02	CREW	BC TE				
TEST RECORDER TYPE	YSI	WATER TEMP	6.9	AIR TEMP	5.0	ICE CONDITIONS	none				
LOGGER CONDITIONS											
WATER DEPTH	150	cm	DISLODGED	no	REASON						
BURIED	no	FUNCTIONAL	w et	IF DRY, HEIGHT ABOVE WATER	cm	TETHER TYPE	alder				
COMMENTS											
dow nload OK											
Rpl # 14, SN 10669747											
Stainless steel cable OK											
SITE ID	pineDN1_BU	LOCATION			d/s of Pine River	BANK		south			
LOGGER TYPE	Tidbit	LOGGER SERIAL #			10893055	UTM	648362	6222823			
DOWNLOAD DATE	19	Oct	2018	DOWNLOAD TIME	14:21	CREW	BC TE				
TEST RECORDER TYPE	YSI	WATER TEMP	6.4	AIR TEMP	10.0	ICE CONDITIONS	none				
LOGGER CONDITIONS											
WATER DEPTH	150	cm	DISLODGED	no	REASON						
BURIED	no	FUNCTIONAL	w et	IF DRY, HEIGHT ABOVE WATER	cm	TETHER TYPE	alder				
COMMENTS											
RPL# 25											
dow nload ok											
stainless steel cable replaced by chain											
SITE ID	pineDN1	LOCATION			d/s of Pine River	BANK		south			
LOGGER TYPE	Tidbit	LOGGER SERIAL #			10156319	UTM	648101	6222802			
DOWNLOAD DATE	19	Oct	2018	DOWNLOAD TIME	14:06	CREW	BC TE				
TEST RECORDER TYPE	YSI	WATER TEMP	6.4	AIR TEMP	10.0	ICE CONDITIONS	none				
LOGGER CONDITIONS											
WATER DEPTH	150	cm	DISLODGED	no	REASON						
BURIED	no	FUNCTIONAL	w et	IF DRY, HEIGHT ABOVE WATER	cm	TETHER TYPE	alder				
COMMENTS											
RPL#1											
dow nload OK											
Stainless steel cable OK											

BC HYDRO PEACE RIVER TEMPERATURE MONITORING - DOWNLOAD INFORMATION FORM											
SITE ID	PineMS1		LOCATION			Pine River mainstem			BANK	north	
LOGGER TYPE	Tidbit		LOGGER SERIAL #			10893069			UTM	641762	6223549
DOWNLOAD DATE	19	Oct	2018	DOWNLOAD TIME			13:35			CREW	BC TE
TEST RECORDER TYPE	YSI		WATER TEMP	5.6	AIR TEMP	10.0	ICE CONDITIONS		none		
LOGGER CONDITIONS											
WATER DEPTH			cm	DISLODGED		yes	REASON		debris		
BURIED	no	FUNCTIONAL			dry	IF DRY, HEIGHT ABOVE WATER			cm	TETHER TYPE	steel piling
COMMENTS											
RPL# 28											
download ok											
all new stainless cable											
swung to shore by debris											
SITE ID	PineMS2		LOCATION			Pine River mainstem			BANK	north	
LOGGER TYPE	Tidbit		LOGGER SERIAL #			20097150			UTM	641762	6223549
DOWNLOAD DATE	19	Oct	2018	DOWNLOAD TIME			13:36			CREW	BC TE
TEST RECORDER TYPE	YSI		WATER TEMP	5.6	AIR TEMP	10.0	ICE CONDITIONS		none		
LOGGER CONDITIONS											
WATER DEPTH			cm	DISLODGED		yes	REASON		debris		
BURIED	no	FUNCTIONAL			dry	IF DRY, HEIGHT ABOVE WATER			cm	TETHER TYPE	steel piling
COMMENTS											
RPL #35											
download ok											
all new stainless cable ok											
swung to shore by debris											
SITE ID	beatMS1		LOCATION			Beatton R mainstem			BANK	east	
LOGGER TYPE	Tidbit		LOGGER SERIAL #			20322122			UTM	663101	6220759
DOWNLOAD DATE	19	Oct	2018	DOWNLOAD TIME			15:16			CREW	BC TE
TEST RECORDER TYPE	YSI		WATER TEMP	6.5	AIR TEMP	10.0	ICE CONDITIONS		none		
LOGGER CONDITIONS											
WATER DEPTH	30	cm	DISLODGED	no	REASON						
BURIED	no	FUNCTIONAL		wet	IF DRY, HEIGHT ABOVE WATER			cm	TETHER TYPE	birch	
COMMENTS											
RPL# 36											
download ok											
Beatton very low , logger probably exposed when Peace River is low and low Beatton is not backed up											
SITE ID	beatMS2		LOCATION			Beatton R mainstem			BANK	east	
LOGGER TYPE	Tidbit		LOGGER SERIAL #			2003828			UTM	663101	6220759
DOWNLOAD DATE	19	Oct	2018	DOWNLOAD TIME			15:16			CREW	BC TE
TEST RECORDER TYPE	YSI		WATER TEMP	6.5	AIR TEMP	10.0	ICE CONDITIONS		none		
LOGGER CONDITIONS											
WATER DEPTH	30	cm	DISLODGED	no	REASON						
BURIED	no	FUNCTIONAL		wet	IF DRY, HEIGHT ABOVE WATER			cm	TETHER TYPE	birch	
COMMENTS											
RPL# 32											
download ok											
Beatton very low , logger probably exposed when Peace River is low and low Beatton is not backed up											

BC HYDRO PEACE RIVER TEMPERATURE MONITORING - DOWNLOAD INFORMATION FORM												
SITE ID	pouceUP1		LOCATION	Peace R mainstem u/s of Pouce Coupe R				BANK	south			
LOGGER TYPE	Tidbit		LOGGER SERIAL #	10635062				UTM	11	316873	6225211	
DOWNLOAD DATE	18	Oct	2018	DOWNLOAD TIME	15:37				CREW	BC TE		
TEST RECORDER TYPE	YSI		WATER TEMP	7.6	AIR TEMP	10.0		ICE CONDITIONS	none			
LOGGER CONDITIONS												
WATER DEPTH	100	cm	DISLODGED	no		REASON						
BURIED	no	FUNCTIONAL	wet		IF DRY, HEIGHT ABOVE WATER	cm	TETHER TYPE	birch				
COMMENTS												
download ok stainless cable ok RPL#6												
SITE ID	pouceUP2		LOCATION	Peace R mainstem u/s of Pouce Coupe R				BANK	north			
LOGGER TYPE	Tidbit		LOGGER SERIAL #	10893068				UTM	11	316146	6226036	
DOWNLOAD DATE	18	Oct	2018	DOWNLOAD TIME	16:05				CREW	BC TE		
TEST RECORDER TYPE	YSI		WATER TEMP	7.9	AIR TEMP	10.0		ICE CONDITIONS	none			
LOGGER CONDITIONS												
WATER DEPTH	1	cm	DISLODGED	yes		REASON	unk					
BURIED	no	FUNCTIONAL	dry		IF DRY, HEIGHT ABOVE WATER	cm	TETHER TYPE	spruce				
COMMENTS												
download ok anchor tree removed by land slide logger and capsule found atop a large boulder at site, placed by humans, cable stolen RPL#27 relocated to new site at 11.315887.6226158												
SITE ID			LOCATION					BANK				
LOGGER TYPE			LOGGER SERIAL #					UTM				
DOWNLOAD DATE				DOWNLOAD TIME					CREW			
TEST RECORDER TYPE			WATER TEMP		AIR TEMP			ICE CONDITIONS				
LOGGER CONDITIONS												
WATER DEPTH		cm	DISLODGED			REASON						
BURIED	no	FUNCTIONAL	wet		IF DRY, HEIGHT ABOVE WATER	cm	TETHER TYPE					
COMMENTS												
SITE ID			LOCATION					BANK				
LOGGER TYPE			LOGGER SERIAL #					UTM				
DOWNLOAD DATE				DOWNLOAD TIME					CREW			
TEST RECORDER TYPE			WATER TEMP		AIR TEMP			ICE CONDITIONS				
LOGGER CONDITIONS												
WATER DEPTH		cm	DISLODGED			REASON						
BURIED		FUNCTIONAL	wet		IF DRY, HEIGHT ABOVE WATER	cm	TETHER TYPE					
COMMENTS												

BC HYDRO PEACE RIVER TEMPERATURE MONITORING - DOWNLOAD INFORMATION FORM

SITE ID	gmsUP1	LOCATION	GMS Forebay			BANK			
LOGGER TYPE	Tidbit	LOGGER SERIAL #	10676155			UTM	548841	6209022	
DOWNLOAD DATE	22	Mar	2019	DOWNLOAD TIME	13:08			CREW	BC DC
TEST RECORDER TYPE	YSI	WATER TEMP	0.6	AIR TEMP	8	ICE CONDITIONS	Res. Frozen		

LOGGER CONDITIONS								
WATER DEPTH	100	cm	DISLODGED	no	REASON			
BURIED	no	FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER		cm	TETHER TYPE	steel buoy

COMMENTS

RPL#19
 Low battery; Logger replaced w with RPL#43 (SN 20332187)
 Download OK

SITE ID	gmsUP2	LOCATION	GMS Forebay			BANK			
LOGGER TYPE	Tidbit	LOGGER SERIAL #	10676180			UTM	548841	6209022	
DOWNLOAD DATE	22	Mar	2019	DOWNLOAD TIME	13:11			CREW	BC DC
TEST RECORDER TYPE	YSI	WATER TEMP	0.6	AIR TEMP	8	ICE CONDITIONS	Res. Frozen		

LOGGER CONDITIONS								
WATER DEPTH	1000	cm	DISLODGED	no	REASON			
BURIED	no	FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER		cm	TETHER TYPE	steel buoy

COMMENTS

RPL#20
 Download OK

SITE ID	gmsDN2	LOCATION	GMS Tailrace RDB			BANK		north	
LOGGER TYPE	Tidbit	LOGGER SERIAL #	10669739			UTM	548828	6207836	
DOWNLOAD DATE	11	Jan	2019	DOWNLOAD TIME	13:48			CREW	BC TE
TEST RECORDER TYPE	YSI	WATER TEMP	2.5	AIR TEMP	-6	ICE CONDITIONS	none		

LOGGER CONDITIONS								
WATER DEPTH	150	cm	DISLODGED	no	REASON			
BURIED	no	FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER		cm	TETHER TYPE	rock

COMMENTS

Back-up logger gmsDN2-BU RPL#367, S/N20332121 in same capsule 13:47
 both downloads OK
 cable ok (stainless steel cable section attached to galvanized cable around rock)
 Primary Logger-Rpl #11, SN 10669739

SITE ID	gmsDN1	LOCATION	GMS Tailrace LDB			BANK		south	
LOGGER TYPE	Tidbit	LOGGER SERIAL #	10635063			UTM	548881	6207761	
DOWNLOAD DATE	11	Jan	2019	DOWNLOAD TIME	14:05			CREW	BC TE
TEST RECORDER TYPE	YSI	WATER TEMP	1.7	AIR TEMP	-26	ICE CONDITIONS	none		

LOGGER CONDITIONS								
WATER DEPTH	200	cm	DISLODGED	no	REASON			
BURIED	no	FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER		cm	TETHER TYPE	rock

COMMENTS

Back-up logger gmsDN1-BU RPL#38, S/N20332152 in same capsule 14:06
 both downloads OK
 cable ok (stainless steel cable section attached to galvanized cable around rock)
 Primary Logger gmsDN1-RPL#7

BC HYDRO PEACE RIVER TEMPERATURE MONITORING - DOWNLOAD INFORMATION FORM											
SITE ID	halfUP2	LOCATION	u/s of Half way River			BANK			north		
LOGGER TYPE	Tidbit	LOGGER SERIAL #	20030829			UTM	595569	6230541			
DOWNLOAD DATE	3	Jan	2019	DOWNLOAD TIME	13:36			CREW	BC TE		
TEST RECORDER TYPE	YSI	WATER TEMP	1.7	AIR TEMP	-12		ICE CONDITIONS	none			
LOGGER CONDITIONS											
WATER DEPTH	200	cm	DISLODGED	no	REASON						
BURIED	no	FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER	cm	TETHER TYPE	spruce				
COMMENTS											
download OK											
cable OK											
RPL# 33 SN20030829											
SITE ID	halfUP1	LOCATION	u/s of Half way River			BANK			south		
LOGGER TYPE	Tidbit	LOGGER SERIAL #	20332123			UTM	595165	6230094			
DOWNLOAD DATE	3	Jan	2019	DOWNLOAD TIME	13:34			CREW	BC TE		
TEST RECORDER TYPE	YSI	WATER TEMP	1.7	AIR TEMP	-12		ICE CONDITIONS	none			
LOGGER CONDITIONS											
WATER DEPTH	200	cm	DISLODGED	no	REASON						
BURIED	no	FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER	cm	TETHER TYPE	spruce tree				
COMMENTS											
download OK											
cable OK											
RPL #39, SN 20222123											
SITE ID	halfDN2	LOCATION	d/s of Half way River			BANK			north		
LOGGER TYPE	Tidbit	LOGGER SERIAL #	10669748			UTM	598198	6232169			
DOWNLOAD DATE	3	Jan	2019	DOWNLOAD TIME	13:56			CREW	BC TE		
TEST RECORDER TYPE	YSI	WATER TEMP	0.8	AIR TEMP	-10		ICE CONDITIONS	none			
LOGGER CONDITIONS											
WATER DEPTH	150	cm	DISLODGED	yes	REASON			debris			
BURIED	no	FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER	cm	TETHER TYPE	willow				
COMMENTS											
download ok											
partially swung to shore											
RPL#15, 10669748											
SITE ID	halfDN2_BU	LOCATION	d/s of Half way River			BANK			north		
LOGGER TYPE	Tidbit	LOGGER SERIAL #	10156314			UTM	598179	6263144			
DOWNLOAD DATE	3	Jan	2019	DOWNLOAD TIME	13:55			CREW	BC TE		
TEST RECORDER TYPE	YSI	WATER TEMP	0.8	AIR TEMP	-10		ICE CONDITIONS	none			
LOGGER CONDITIONS											
WATER DEPTH	100	cm	DISLODGED	no	REASON						
BURIED	no	FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER	cm	TETHER TYPE	balsam pop				
COMMENTS											
labelled "halfDN2_BU"											
chain had not moved											
download ok											

BC HYDRO PEACE RIVER TEMPERATURE MONITORING - DOWNLOAD INFORMATION FORM

SITE ID	mobUP2	LOCATION	u/s of Moberly River			BANK	north	
LOGGER TYPE	Tidbit	LOGGER SERIAL #	10669754			UTM	627501	6232563
DOWNLOAD DATE	19	Mar	2019	DOWNLOAD TIME	12:21		CREW	BC TE
TEST RECORDER TYPE	YSI	WATER TEMP	1.2	AIR TEMP	6.0	ICE CONDITIONS	none	

LOGGER CONDITIONS

WATER DEPTH	150	cm	DISLODGED	no	REASON			
BURIED	yes	FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER	cm	TETHER TYPE	birch	

COMMENTS

RPL#16, SN 10669754
down load ok

SITE ID	mobUP1	LOCATION	u/s of Moberly River			BANK	south	
LOGGER TYPE	Tidbit	LOGGER SERIAL #	10887852			UTM	627158	6232349
DOWNLOAD DATE	19	Mar	2019	DOWNLOAD TIME	12:39		CREW	BC TE
TEST RECORDER TYPE	YSI	WATER TEMP	1.2	AIR TEMP	6.0	ICE CONDITIONS	none	

LOGGER CONDITIONS

WATER DEPTH	30	cm	DISLODGED	yes	REASON	ice		
BURIED	no	FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER	cm	TETHER TYPE	alder	

COMMENTS

RPL# 21, SN10887852
stainless cable ok
down load ok
sw ung to shore but wet

SITE ID	mobDN1	LOCATION	d/s of Moberly River			BANK	south	
LOGGER TYPE	Tidbit	LOGGER SERIAL #	10676146			UTM	630776	6229287
DOWNLOAD DATE	19	Mar	2019	DOWNLOAD TIME	12:59		CREW	BC TE
TEST RECORDER TYPE	YSI	WATER TEMP	1.2	AIR TEMP	6.0	ICE CONDITIONS	none	

LOGGER CONDITIONS

WATER DEPTH	30	cm	DISLODGED	yes	REASON	ice		
BURIED	no	FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER	cm	TETHER TYPE	alder	

COMMENTS

RPL#17, S/N10676146
down load OK
partially sw ung to shore but wet
replaced cable with chain

SITE ID	mobDN1_BU	LOCATION	d/s of Moberly River			BANK	south	
LOGGER TYPE	Tidbit	LOGGER SERIAL #	10676147			UTM	630875	6229275
DOWNLOAD DATE	19	Mar	2019	DOWNLOAD TIME	13:10		CREW	BC TE
TEST RECORDER TYPE	YSI	WATER TEMP	1.2	AIR TEMP	6.0	ICE CONDITIONS	none	

LOGGER CONDITIONS

WATER DEPTH		cm	DISLODGED	yes	REASON	ice		
BURIED	no	FUNCTIONAL	dry	IF DRY, HEIGHT ABOVE WATER	40	cm	TETHER TYPE	alder

COMMENTS

down load OK
Rpl # 18, S/N10676147
sw ung to shore and dry

BC HYDRO PEACE RIVER TEMPERATURE MONITORING - DOWNLOAD INFORMATION FORM											
SITE ID	pineUP2	LOCATION	u/s of Pine River			BANK		north			
LOGGER TYPE	Tidbit	LOGGER SERIAL #	9767573			UTM	641653	6225304			
DOWNLOAD DATE	19	Mar	2019	DOWNLOAD TIME	13:47		CREW	BC TE			
TEST RECORDER TYPE	YSI	WATER TEMP	1.5	AIR TEMP	6.0	ICE CONDITIONS	none				
LOGGER CONDITIONS											
WATER DEPTH	180	cm	DISLODGED	no	REASON						
BURIED	no	FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER	cm	TETHER TYPE	balsam pop				
COMMENTS											
download OK											
Stainless steel cable OK											
Logger "halfUP1R" SN 9767573 replaced with RPL#40 S/N20332129											
SITE ID	pineUP1	LOCATION	u/s of Pine River			BANK		south			
LOGGER TYPE	Tidbit	LOGGER SERIAL #	10669747			UTM	641034	6225372			
DOWNLOAD DATE	19	Mar	2019	DOWNLOAD TIME	13:52		CREW	BC TE			
TEST RECORDER TYPE	YSI	WATER TEMP	1.9	AIR TEMP	6.0	ICE CONDITIONS	none				
LOGGER CONDITIONS											
WATER DEPTH	80	cm	DISLODGED	yes	REASON	ice					
BURIED	no	FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER	cm	TETHER TYPE	alder				
COMMENTS											
download OK											
partially swung to shore but wet											
Rpl # 14, SN 10669747											
Stainless steel cable OK											
SITE ID	pineDN1_BU	LOCATION	d/s of Pine River			BANK		south			
LOGGER TYPE	Tidbit	LOGGER SERIAL #	10893055			UTM	648362	6222823			
DOWNLOAD DATE	19	Mar	2019	DOWNLOAD TIME	14:17		CREW	BC TE			
TEST RECORDER TYPE	YSI	WATER TEMP	1.4	AIR TEMP	6.0	ICE CONDITIONS	none				
LOGGER CONDITIONS											
WATER DEPTH	90	cm	DISLODGED	no	REASON						
BURIED	no	FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER	cm	TETHER TYPE	alder				
COMMENTS											
RPL# 25											
download ok											
stainless steel cable ok											
SITE ID	pineDN1	LOCATION	d/s of Pine River			BANK		south			
LOGGER TYPE	Tidbit	LOGGER SERIAL #	10156319			UTM	648101	6222802			
DOWNLOAD DATE	19	Mar	2019	DOWNLOAD TIME	14:17		CREW	BC TE			
TEST RECORDER TYPE	YSI	WATER TEMP	1.4	AIR TEMP	6.0	ICE CONDITIONS	none				
LOGGER CONDITIONS											
WATER DEPTH	80	cm	DISLODGED	no	REASON						
BURIED	no	FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER	cm	TETHER TYPE	alder				
COMMENTS											
Stainless steel cable OK											
Logger RPL# 1, 10156319 replaced with RPL#41, S/N20332124											

BC HYDRO PEACE RIVER TEMPERATURE MONITORING - DOWNLOAD INFORMATION FORM										
SITE ID	PineMS1	LOCATION	Pine River mainstem			BANK		north		
LOGGER TYPE	Tidbit	LOGGER SERIAL #	10893069			UTM	641762	6223549		
DOWNLOAD DATE	Jan	2019	DOWNLOAD TIME				CREW	BC TE		
TEST RECORDER TYPE		WATER TEMP		AIR TEMP		ICE CONDITIONS	none			
LOGGER CONDITIONS										
WATER DEPTH		cm	DISLODGED		REASON					
BURIED		FUNCTIONAL		IF DRY, HEIGHT ABOVE WATER		cm	TETHER TYPE	steel piling		
COMMENTS										
RPL# 28										
Not dow nloaded, inaccessible under ice										
SITE ID	PineMS2	LOCATION	Pine River mainstem			BANK		south		
LOGGER TYPE	Tidbit	LOGGER SERIAL #	20097150			UTM	641762	6223549		
DOWNLOAD DATE	Jan	2019	DOWNLOAD TIME				CREW	BC TE		
TEST RECORDER TYPE		WATER TEMP		AIR TEMP		ICE CONDITIONS	none			
LOGGER CONDITIONS										
WATER DEPTH		cm	DISLODGED		REASON					
BURIED		FUNCTIONAL		IF DRY, HEIGHT ABOVE WATER		cm	TETHER TYPE	steel piling		
COMMENTS										
Not dow nloaded, inaccessible under ice										
SITE ID	beatMS1	LOCATION	Beatton R mainstem			BANK		east		
LOGGER TYPE	Tidbit	LOGGER SERIAL #	20332122			UTM	663101	6220759		
DOWNLOAD DATE	Jan	2019	DOWNLOAD TIME				CREW	BC TE		
TEST RECORDER TYPE		WATER TEMP		AIR TEMP		ICE CONDITIONS	none			
LOGGER CONDITIONS										
WATER DEPTH		cm	DISLODGED		REASON					
BURIED		FUNCTIONAL		IF DRY, HEIGHT ABOVE WATER		cm	TETHER TYPE	spruce		
COMMENTS										
RPL# 36										
Not dow nloaded, inaccessible under ice										
SITE ID	beatMS2	LOCATION	Beatton R mainstem			BANK		east		
LOGGER TYPE	Tidbit	LOGGER SERIAL #	20030828			UTM	663101	6220759		
DOWNLOAD DATE	Jan	2019	DOWNLOAD TIME				CREW	BC TE		
TEST RECORDER TYPE		WATER TEMP		AIR TEMP		ICE CONDITIONS	none			
LOGGER CONDITIONS										
WATER DEPTH		cm	DISLODGED		REASON					
BURIED		FUNCTIONAL		IF DRY, HEIGHT ABOVE WATER		cm	TETHER TYPE	spruce		
COMMENTS										
RPL# 32										
Not dow nloaded, inaccessible under ice										

BC HYDRO PEACE RIVER TEMPERATURE MONITORING - DOWNLOAD INFORMATION FORM															
SITE ID		pouceUP1		LOCATION				Peace R mainstem u/s of Pouce Coupe R				BANK		south	
LOGGER TYPE		Tidbit		LOGGER SERIAL #				10635062				UTM		11 316873 6225211	
DOWNLOAD DATE		2 Jan 2019		DOWNLOAD TIME				15:35				CREW		BC TE	
TEST RECORDER TYPE		YSI		WATER TEMP		1.9		AIR TEMP		4.0		ICE CONDITIONS		none	
LOGGER CONDITIONS															
WATER DEPTH		150 cm		DISLODGED		no		REASON							
BURIED		no		FUNCTIONAL		wet		IF DRY, HEIGHT ABOVE WATER		cm		TETHER TYPE		birch	
COMMENTS															
down load ok															
stainless cable ok															
RPL#6															
river very low , approximately 1.5m lower than normal															
SITE ID		pouceUP2		LOCATION				Peace R mainstem u/s of Pouce Coupe R				BANK		north	
LOGGER TYPE		Tidbit		LOGGER SERIAL #				10893068				UTM		11 315887 6226158	
DOWNLOAD DATE		2 Jan 2018		DOWNLOAD TIME				15:46				CREW		BC TE	
TEST RECORDER TYPE		YSI		WATER TEMP		2.0		AIR TEMP		4.0		ICE CONDITIONS		none	
LOGGER CONDITIONS															
WATER DEPTH		40 cm		DISLODGED		no		REASON							
BURIED		no		FUNCTIONAL		wet		IF DRY, HEIGHT ABOVE WATER		cm		TETHER TYPE		birch	
COMMENTS															
down load ok															
Stainless cable ok															
RPL#27															
SITE ID		LOCATION				BANK									
LOGGER TYPE		LOGGER SERIAL #				UTM									
DOWNLOAD DATE		DOWNLOAD TIME				CREW									
TEST RECORDER TYPE		WATER TEMP		AIR TEMP		ICE CONDITIONS									
LOGGER CONDITIONS															
WATER DEPTH		cm		DISLODGED				REASON							
BURIED		no		FUNCTIONAL		wet		IF DRY, HEIGHT ABOVE WATER		cm		TETHER TYPE			
COMMENTS															
SITE ID		LOCATION				BANK									
LOGGER TYPE		LOGGER SERIAL #				UTM									
DOWNLOAD DATE		DOWNLOAD TIME				CREW									
TEST RECORDER TYPE		WATER TEMP		AIR TEMP		ICE CONDITIONS									
LOGGER CONDITIONS															
WATER DEPTH		cm		DISLODGED				REASON							
BURIED				FUNCTIONAL		wet		IF DRY, HEIGHT ABOVE WATER		cm		TETHER TYPE			
COMMENTS															

BC HYDRO PEACE RIVER TEMPERATURE MONITORING - DOWNLOAD INFORMATION FORM											
SITE ID	PineMS1		LOCATION	Pine River mainstem			BANK		north		
LOGGER TYPE	Tidbit		LOGGER SERIAL #	10893069			UTM	641762	6223549		
DOWNLOAD DATE	6	May	2019	DOWNLOAD TIME	15:05			CREW	BC TE		
TEST RECORDER TYPE	YSI		WATER TEMP	6.6	AIR TEMP	10.0	ICE CONDITIONS	none			
LOGGER CONDITIONS											
WATER DEPTH	100	cm	DISLODGED	no	REASON		debris				
BURIED	no	FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER		cm	TETHER TYPE	steel piling			
COMMENTS											
RPL# 28 download ok											
SITE ID	PineMS2		LOCATION	Pine River mainstem			BANK		north		
LOGGER TYPE	Tidbit		LOGGER SERIAL #	20097150			UTM	641762	6223549		
DOWNLOAD DATE	6	May	2019	DOWNLOAD TIME	n/a			CREW	BC TE		
TEST RECORDER TYPE	YSI		WATER TEMP	6.6	AIR TEMP	10.0	ICE CONDITIONS	none			
LOGGER CONDITIONS											
WATER DEPTH		cm	DISLODGED		yes	REASON	ice				
BURIED		FUNCTIONAL		IF DRY, HEIGHT ABOVE WATER		cm	TETHER TYPE	steel piling			
COMMENTS											
RPL #35 cable parted; logger lost probable cause; ice breakup logger replaced with replac#10; serial# 10635067.											
SITE ID	beatMS1		LOCATION	Beatton R mainstem			BANK	east			
LOGGER TYPE	Tidbit		LOGGER SERIAL #	20322122			UTM	663101	6220759		
DOWNLOAD DATE	6	May	2019	DOWNLOAD TIME	16:12			CREW	BC TE		
TEST RECORDER TYPE	YSI		WATER TEMP	7.5	AIR TEMP	10.0	ICE CONDITIONS	none			
LOGGER CONDITIONS											
WATER DEPTH		cm	DISLODGED		yes	REASON	ice				
BURIED	no	FUNCTIONAL		dry	IF DRY, HEIGHT ABOVE WATER	20	cm	TETHER TYPE	birch		
COMMENTS											
RPL# 36 download ok sw ubg to shore by outgoing ice; dry.											
SITE ID	beatMS2		LOCATION	Beatton R mainstem			BANK	east			
LOGGER TYPE	Tidbit		LOGGER SERIAL #	2003828			UTM	663101	6220759		
DOWNLOAD DATE	6	May	2019	DOWNLOAD TIME	16:13			CREW	BC TE		
TEST RECORDER TYPE	YSI		WATER TEMP	7.5	AIR TEMP	10.0	ICE CONDITIONS	none			
LOGGER CONDITIONS											
WATER DEPTH	30	cm	DISLODGED		yes	REASON	ice				
BURIED	no	FUNCTIONAL	wet	IF DRY, HEIGHT ABOVE WATER		cm	TETHER TYPE	birch			
COMMENTS											
RPL# 32 download ok sw ung partially to shore by outgoing ice but still submerged.											