Permit # 145265K

Reconnaissance (1:20,000) Fish and Fish Habitat Inventory Resampling in the Pierre and Twain Sub-units 2002/03

Addendum to Pierre and Twain Sub-units Fish Inventory - 1999

WSC's:

480-793000:	**Kew C. (Alias) Watershed**
480-802100:	**Pierre C. Watershed**
480-816400:	**Twain C. Watershed**
480-****:**	**8 Small Tributaries to Babine Lake**

Prepared for:
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Approved by:

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March 31, 2003

Project Reference Information

FIA Investment Schedule #	PRTSA145013
MSRM Project Number	BFP-C016-001-2003
FIA Project Number	5013004
FDIS Project Code	5746
FDIS Project WSC	480-000000
FIA Region	Smithers Region
MSRM Region	06 - Skeena
FW Management Unit	6-6
DFO Sub-District	4D
Forest Region	Prince Rupert
Forest District	Lakes Forest District
Forest Licensee and Tenure #	Babine Forest Products Company Forest Licence A-16823
First Nations Claim Area	Carrier-Sekani

Watershed Information

Watershed Group	BABL (Babine Lake)
Watershed Name	Babine Lake Tributaries (Pierre and Twain Sub-unit Areas)
Watershed Code	480-******
UTM at Mouth	Varied
Watershed Area (km^2)	252
Total of all Stream Lengths (km)	452
Stream Order	Varied
NTS Maps	93 K/12, 93 L/9
TRIM Maps	93K.061, 93K.051, 93L.060, 93L.070
BEC Zone	SBS (Sub-Boreal Spruce)
Fish Species Present	CT, LKC
Air Photos	**30BCC98024**: 129-144; 160-163 **30BCC96049**: 027-043;086-100 **30BCC96155**: 024-041 **30BCB90065**: 130-145;167-183 **30BCC96154**: 166-183

Sampling Design Summary

Total Number of Reaches	805
Random Sample Reaches	0
Discretionary Sample Reaches	154
Total Sample Reaches	154
% of Reaches Sampled	19.1
Field Sampling Dates	July 4 – August 16, 2002

Abbreviations Used in this Report

Avg	Average	M	Moderate flow, moderate turbid or medium size stream
BB	Burbot (*Lota lota*)	MELP	Ministry of Environment, Lands and Parks
BD	Stream bed, beaver dam	M/L	Mainline
BFP	Babine Forest Products Company	MT	Minnow trap
BGC	Biogeoclimatic zone	MW	Mountain whitefish (*Prosopium williamsoni*)
BMC	Brassy minnow *(Hybognathus hankinsoni)*	NA	Not applicable
C	Clear (not turbid)	NCD	Not classified drainage
C.	Creek	NCD*	No drainage present at mapped location
CAS	Prickly sculpin (*Cottus asper*)	Neg	Film negative
CBC	Chub-general	NFC	No fish captured
CC	Sculpins -general	NFP	No fish present
CD	Compact disc	NS	Not sampled
CH	Chinook salmon (*O. tshawytscha)*	NSC	Northern pike minnow *(Ptycheilus oregonensis)*
CO	Coho salmon (*O. kisutch*)	NTS	National Topographic Survey
Cond.	Conductivity	NVC	No visible channel
CPUE	Catch per unit effort	PCC	Peamouth chub *(Mylocheilus caurinus)*
CSU	Largescale sucker *(Catostomus macrocheilus)*	pH	Acidity or alkalinity measurement unit
CT	Cutthroat trout (*O. clarki*)	Prop	Proposed
CW	Channel width	PW	Electric pulse width
D	Downstream	R.	River
DFO	Department of Fisheries and Oceans	RB	Rainbow trout (*O. mykiss*)
Dir	Direction	Rd	Road
Dist.	Distance	Rip	Riparian
d/s	Downstream	RSC	Redside shiner *(Richardsonius balteatus)*
DV	Dolly Varden char *(Salvelinus malma)*	RSS	Regionally significant species
EF	Electrofishing	S1 - S6	Riparian classes
Exp	Expected	sec	Seconds
FDIS	Field Data Information System	S	Small size stream
FISS	Fisheries Information Summary System	SBS	Sub-Boreal Spruce BGC
FPC	Forest Practices Code	SK	Sockeye salmon (*O. nerka*)
FRBC	Forest Renewal of British Columbia	S/S/I	Straight, sinuous or irregular wandering channels
Freq	Electric current frequency	Spp.	Species
FRIM	Reconnaissance (1:20,000) Fish and Fish Habitat Inventory: Standards and Procedures (Version 1.1)	STD	Standard
Grad	Slope gradient	ST/SI/IR	Straight, sinuous or irregular wandering channels
H	High flow	T	Turbid
Hz	Hertz	Temp	Temperature
ILP	Interim Locational Point	TRIM	Terrain Resource Information Management
I/M/T	Irregular meandering, meandering or tortuous meandering channels	Turb	Turbidity
IM/ME/TM	Irregular meandering, meandering or tortuous meandering channels	U	Upstream
Info.	Information	u/s	Upstream
km	Kilometer	X	Across
KO	Kokanee (*O. nerka*)	UTM	Universal Transverse Mercator coordinates
L	Lamprey – general *(Lampetra spp.)*	V	Volts
L	Low flow, lightly turbid or large size stream	Volt	Voltage
L.	Lake	Wb	Bankfull depth
LKC	Lake chub (*Couesius plumbeus*)	WCB	Workers Compensation Board
LNC	Longnose dace *(Rhinichthys cataractae)*	WSC	Watershed code
LSU	Longnose sucker (*Catostomus catostomus*)	W1-W5	FPC wetland classes
LT	Lake trout *(S. namaycush)*	µs	Microseconds
LW	Lake whitefish *(Coregonus clupeaformis)*	µS	Microsiemens
LWD	Large Woody Debris	°C	Temperature
m	Meter	%	Slope gradient
mm	Millimeter		

Contractor Information

Project Manager:	Karen Grainger, R.P.Bio., Babine Forest Products Box 4000, Burns Lake, B.C. V0J 1E0 (250) 692-7177
Sub-contractor:	FINS Consulting Ltd. #207 - 4546 Park Avenue, Terrace, BC, V8G 1V4 (250) 635-8481
Field crew: **Data Entry by:** **Report prepared by:** **Report edited by:**	S. Redden, M. Jedrzejczyk M. Jedrzejczyk S. Redden M. Jedrzejczyk
Maps prepared by:	FINS Consulting Ltd. #207 - 4546 Park Avenue, Terrace, BC, V8G 1V4 (250) 635-8481

Disclaimer

This product has been accepted as being in accordance with approved standards within the limits of Ministry quality assurance procedures. Users are cautioned that interpreted information on this product developed for the purposes of the Forest Practices Code Act and Regulations, for example stream classifications, is subject to review by a statutory decision maker for the purposes of determining whether or not to approve an operational plan.

Acknowledgments

Funding for this project was made available by the Forest Investment Account, a new provincial government mechanism for promoting sustainable forest management in British Columbia. We would also like to give special thanks Karen Grainger for, above all else, putting up with us throughout the field portion of the project.

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The following material is supplemental to this report and provides information for all watersheds as defined in Schedule A (i.e., Pierre/Twain and Taltapin Sub-units)

Attachment I **Hardcopy FISS Update Data Forms and Maps**

Attachment II **Photodocumentation**

i) Photodocumentation Form 1
ii) FDIS Photodocumentation Export File
iii) Indexed Album of all negatives
iv) 2 Indexed Copies of Photo CD's

Attachment III **Field Data**

i) site cards, fish collection forms, individual fish data forms and field notes

Attachment IV **Digital Data**

1. Introduction

1.1 Project Scope and Objectives

The objective of this project was to conduct resampling on streams within the Pierre and Twain Sub-units to provide a complete summary of fish distribution in the area. Resampling was conducted to supplement and augment the information collected during a past Reconnaissance inventory completed in the area in 1999, and was generally gathered to provide BFP with site-specific fisheries information to be used to aid in forest development planning and activities. Most of this fisheries information was collected either to fill information gaps and improve fish distribution information or to confirm previously proposed Forest Practices Code (FPC) stream classifications. All results for this report incorporate any previous field sampling that may have been conducted on the streams. This is a continuation of a multi-year FRBC project commenced in 1996 for Babine Forest Products Company (BFP).

1.2 Location

All watersheds within this project area are south shore tributaries to Babine Lake in the Pierre Creek area, located approximately 60km north northwest of the Village of Burns Lake, B.C. All streams are located within the Pierre and Twain BFP sub-unit management areas. The project overview map (Figure 1) on the following page provides the general location of the study area.

1.3 Access

The predominant modes of access to reaches within the study area watersheds were boat, helicopter and vehicle. Boat access from Babine Lake was used for the lower reaches of the Kew Creek and Pierre Creek watersheds, and the small tributaries to Babine Lake. The upper Pierre Creek watershed was only accessible by helicopter. Remaining reaches were primarily accessed by vehicle from various logging roads and cutblock spur roads.

2. Resource Information

The primary resource use within the area is forest management for timber extraction in BFP's operating area. The project area is located within Carrier-Sekani land. No significant wildlife use or impacts were noted within this area.

An abundance of fisheries information has been collected and presented under the scope of a reconnaissance inventory completed in 1999 (FINS, 1999.). This information has been compiled and utilized for the interpretive mapping for this project and when applicable, used to provide rationale for fish-bearing status and stream classifications. Table 1 below summarizes historical information regarding fish presence and sampling results within the project area. This information is also displayed on the interpretive maps for this project.

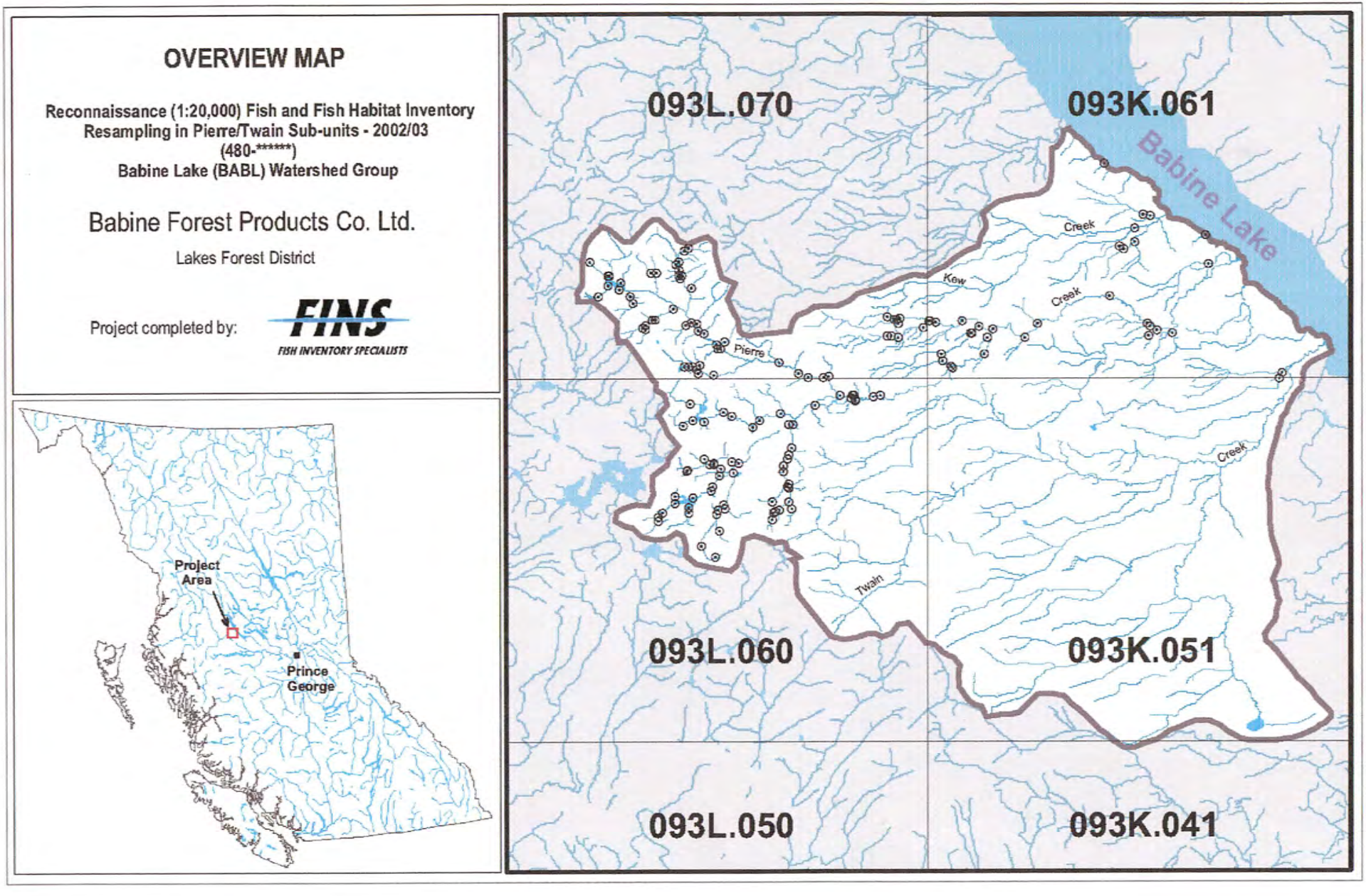

Figure 1: Project Area Overview Map.

Table 1: Historical information on fish presence in the Pierre/Twain Area.

Stream ID/ ILP	Watershed Code	Reach	Historic Site #	Fish Species/ Sampling Results	Source/Comments
61701	480-778888	1	1	NS	FINS. 1999 (FFHI).
	480-781500	1	2	NS	FINS. 1999 (FFHI).
61703	480-783503	1	3	NS	FINS. 1999 (FFHI).
61704	480-785774	1	4	NS	FINS. 1999 (FFHI).
Kew C.	480-793000	1	5	CO	FINS. 1999 (FFHI).
Kew C.	480-793000	3	6	NFC (RB)	FINS. 1999 (FFHI).
Kew C.	480-793000	3.1	7	NFC	FINS. 1999 (FFHI).
Kew C.	480-793000	3.1	8	NFC	FINS. 1999 (FFHI).
Kew C.	480-793000	3.1	9	NFC	FINS. 1999 (FFHI).
61710	480-793000-11922	1	10	NS	FINS. 1999 (FFHI).
	480-793000-13100	1	11	CO	FINS. 1999 (FFHI).
	480-793000-13100	3	12	NFC (RB)	FINS. 1999 (FFHI).
	480-793000-13100	5	13	NS	FINS. 1999 (FFHI).
61718	480-793000-26831	1	14	NS	FINS. 1999 (FFHI).
61706	480-793000-11873-13844	1	15	NS	FINS. 1999 (FFHI).
Pierre C.	480-802100	1	16	KO RB SK	FINS. 1999 (FFHI).
Pierre C.	480-802100	2	17	SK	FINS. 1999 (FFHI).
Pierre C.	480-802100	3	18	RB SK	FINS. 1999 (FFHI).
Pierre C.	480-802100	3	19	CT	FINS. 1999 (FFHI).
Pierre C.	480-802100	5	20	CT	FINS. 1999 (FFHI).
Pierre C.	480-802100	6	21	CT	FINS. 1999 (FFHI).
Pierre C.	480-802100	17	22	CT	FINS. 1999 (FFHI).
Pierre C.	480-802100	19	23	CT	FINS. 1999 (FFHI).
Pierre C.	480-802100	21	24	CT	FINS. 1999 (FFHI).
Pierre C.	480-802100	24	26	NFC	FINS. 1999 (FFHI).
Pierre C.	480-802100	26	27	NFC	FINS. 1999 (FFHI).
	480-802100-03500	1	28	NFC	FINS. 1999 (FFHI).
	480-802100-03500	2	29	NFC	FINS. 1999 (FFHI).
61726	480-802100-03500-23005	1	30	NS	FINS. 1999 (FFHI).
	480-802100-16400	2	31	NFC (CT)	FINS. 1999 (FFHI).
	480-802100-16400	9	32	NFC	FINS. 1999 (FFHI).
	480-802100-16400	10	33	NFC	FINS. 1999 (FFHI).
61735	480-802100-17862	2	34	NFC	FINS. 1999 (FFHI).
61735	480-802100-17862	2.1	35	NFC	FINS. 1999 (FFHI).
61745	480-802100-42400-36866	1	36	NFC	FINS. 1999 (FFHI).
70704	480-802100-42400-54400-7930	5	37	NFC	FINS. 1999 (FFHI).
	480-802100-64500	4	38	NFC	FINS. 1999 (FFHI).
	480-802100-64500	5	39	NS	FINS. 1999 (FFHI).
60713	480-802100-64382	1	40	NFC	FINS. 1999 (FFHI).
	480-802100-66400	1	41	CT	FINS. 1999 (FFHI).
	480-802100-66400	5	42	CT	FINS. 1999 (FFHI).
	480-802100-66400	11	43	NFC	FINS. 1999 (FFHI).
60715	480-802100-66400-29165	3	44	NFC (CT)	FINS. 1999 (FFHI).
60715	480-802100-66400-29165	5	45	CT	FINS. 1999 (FFHI).

Stream ID/ ILP	Watershed Code	Reach	Historic Site #	Fish Species/ Sampling Results	Source/Comments
60715	480-802100-66400-29165	7	46	NFC (CT)	FINS. 1999 (FFHI).
60726	480-802100-66400-51900-6945-1799	1	47	NS	FINS. 1999 (FFHI).
60736	480-802100-66400-29800-7252	1	48	NFC (CT)	FINS. 1999 (FFHI).
	480-802100-66400-72600	3	49	NFC	FINS. 1999 (FFHI).
60800	480-802100-68670	2	50	NFC	FINS. 1999 (FFHI).
70720	480-802100-75340	2	51	NS	FINS. 1999 (FFHI).
	480-802100-79900	1	52	CT	FINS. 1999 (FFHI).
70722	480-802100-79900-62632	1	53	CT	FINS. 1999 (FFHI).
70731	480-802100-87582-55658	1	54	NFC	FINS. 1999 (FFHI).
	480-802100-89200	4	55	CT	FINS. 1999 (FFHI).
	480-802100-89200	9	56	CT	FINS. 1999 (FFHI).
70734	480-802100-89200-14498	1	57	NS	FINS. 1999 (FFHI).
70735	480-802100-89200-21677	1	58	NFC (CT)	FINS. 1999 (FFHI).
70742	480-802100-89200-56047	1	59	NFC (CT)	FINS. 1999 (FFHI).
70750	480-802100-89677	1	60	CT	FINS. 1999 (FFHI).
70750	480-802100-89677	4	61	NFC	FINS. 1999 (FFHI).
70751	480-802100-89677-37120	1	62	NFC	FINS. 1999 (FFHI).
70752	480-802100-90021	1	63	CT	FINS. 1999 (FFHI).
70752	480-802100-90021	2	64	NS	FINS. 1999 (FFHI).
70755	480-802100-90021-66649	1	65	NS	FINS. 1999 (FFHI).
	480-805000	1	66	CAS CO	FINS. 1999 (FFHI).
	480-805000	3	67	NFC (RB)	FINS. 1999 (FFHI).
	480-805000	4	68	NFC	FINS. 1999 (FFHI).
	480-805000	6	69	NFC	FINS. 1999 (FFHI).
61751	480-805000-06622	1	70	NS	FINS. 1999 (FFHI).
	480-805000-06800	2	71	NFC	FINS. 1999 (FFHI).
	480-805000-17000	1	72	NFC	FINS. 1999 (FFHI).
61755	480-811652	1	73	CAS (CO RB)	FINS. 1999 (FFHI).
61755	480-811652	2	74	NFC	FINS. 1999 (FFHI).
61755	480-811652	3	75	NS	FINS. 1999 (FFHI).
Twain C.	480-816400	3	76	RB	FINS. 1999 (FFHI).
Twain C.	480-816400	4	77	NFC	FINS. 1999 (FFHI).
Twain C.	480-816400	5	78	NFC	FINS. 1999 (FFHI).
Twain C.	480-816400	6	79	NFC	FINS. 1999 (FFHI).
Twain C.	480-816400	11	80	NFC	FINS. 1999 (FFHI).
	480-816400-06800	1	81	RB	FINS. 1999 (FFHI).
	480-816400-06800	2	82	RB	FINS. 1999 (FFHI).
	480-816400-06800	3	83	NFC	FINS. 1999 (FFHI).
	480-816400-06800-04500	2	84	NS	FINS. 1999 (FFHI).
61756	480-816400-06800-04500-4239-1043	1	85	NS	FINS. 1999 (FFHI).
51711	480-816400-06800-06802	1	86	NS	FINS. 1999 (FFHI).
	480-816400-26900	5	87	NFC	FINS. 1999 (FFHI).

3. Methods

Planning for this project entailed compiling existing information and identifying "information gaps", with the intent being to fill in these gaps with additional sampling information that would supplement and/or solidify all FPC stream classifications. This incorporated any follow-up sampling recommendations made in the Reconnaissance Inventory report. All other aspects of the pre-field phases were conducted as part of the original Reconnaissance Inventory. Sampling to determine upper extents of fish use followed the methodology as outlined in that project planning document.

FDIS data for this project has been consolidated into one FDIS database, which incorporates existing FDIS data from past inventories. Historic site data is not included in the FDIS database, but has been imported into the mapping symbol file (Map features.dbf) for the project. Original FDIS data is included with the digital deliverables for this project.

3.1 Reconnaissance Standards

Methodology used throughout this project was consistent with the standards and methods as defined in the "Reconnaissance (1:20,000) Fish and Fish Habitat Inventory: Standards and Procedures (April 2001)" manual and all standards referenced therein.

Fish Sampling

Electrofishing and visual observation were the primary methods used for fish sampling throughout the field portion of this project. These methods were to be supplemented by the use of minnow traps, when logistically feasible, when electrofishing was not effective or potentially harmful to fish (i.e. deep wetland channels, low water temperatures) and sampling results were inconclusive, but these circumstances did not occur.

Measurements

Stream channel and wetted widths were determined using a meter tape. When possible, a minimum of six channel width measurements were made along each site at a distance of approximately one channel width apart. Stream depth measurements were determined using a meter stick. Stream gradient measurements were determined using an Abney level along several sections of the site. Site lengths were determined either by hip chain or by ground estimate. Measurements of falls were based on ground estimates or calculated using the following formula:

$$H = Ho\ (\text{gradient (\%) to top of falls}) / (\text{gradient (\%) to bottom of falls}) + Ho$$

Where H = Height of falls (in m)
And Ho = Eye height of observer (in m)

The above formula is accurate provided the observer is at the same elevation as the base of the falls (i.e., standing at the edge of the plunge pool). Cascade heights and lengths were determined using a hip chain and Abney level. Vertical cascade height was calculated using the gradient and slope distance according to the formula:

$$\text{Height (m)} = \sin(\tan^{-1}(\text{gradient (\%)})) \times \text{slope distance (m)}$$

Stream water temperatures were determined using an alcohol thermometer while pH and conductivity measurements were made using Oakton portable meters, which were calibrated daily using standardized solutions.

Site Numbering Convention

Site numbers for this project have been assigned in an upstream ascending order for all sampled reaches under the scope of this project. Site numbers have been included in all tables that provide specific reach sampling information and on all photographs and photodocumentation indices.

NVC (No Visible Channel) Reaches

There were three types of situations in which site assessment in the field revealed no visible channel. They include reaches where no drainage was present, reaches that were not a stream by FPC definition, or wetland-type reaches where there was no defined channel present. These different types of NVC reaches were noted in the comments on the site cards and are summarized in the "Fish-Bearing Status" section of this report. It is expected that NVC reaches would receive a "Non Classified Drainage" (NCD) FPC classification.

Appendix Layout - FDIS Reach/Site Summaries, Photographs and Maps

FDIS reach site summaries for sampled reaches have been included in Appendix I. In addition to the standard FDIS reach site summary, comments from the corresponding site and fish cards have been extracted from the cards and provided on the bottom of the page. Photodocumentation references for each site have also been included on this summary page. The reach/site summaries are arranged by site number. The photographs are included in Appendix II and are arranged by roll and frame number. The photographs have been reduced in size so that multiple photos can be presented on one page. Each photo is labeled with roll, frame, watershed code/ILP, reach and site numbers so that each photo can be easily cross-referenced in the index, report, the FDIS database, the negative binder and the photo CD's. All photos are available in Kodak photo CD format, included in Attachment II. An interpretive map has also been produced and is included in Appendix III.

Field Equipment

All sampling equipment specifications are listed below:

- Smith-Root model 12B P.O.W. Backpack Electrofishers
- 50 Gee-type minnow traps
- 2 Oakton pHTestr2 pH meters (with pH 7 & 10 buffer solutions)
- 2 Oakton TDSTestr3 conductivity meters (with 1413µS/cm solution)
- Abney Levels, alcohol thermometers, Silva compasses
- Pentax Zoom 90WR cameras
- assorted other equipment including tight chains, hip chains, dip nets, fishing rods, magnifying lenses, meter sticks, meter tapes
- 4X4 trucks equipped with Level 1 First Aid kits and 4 personal First Aid kits, as per WCB requirements

4. Results and Discussion

The following sections present fish and fish habitat information for the project area as identified earlier in this report. Summarized information for all sampled reaches is presented in tabular format in the "Fish Bearing Status section" of this report while detailed site-specific information is available in the Appendices.

4.1 Logistics

No logistical problems were encountered throughout the course of the field sampling portion of this project.

4.2 Fish and Fish Habitat Information

Several physical obstructions to fish migration that influenced fish distribution in the project area were identified in this area. Although some are permanent barriers that mark the upper extent of fish use, few are temporary or "soft" barriers that may influence upstream fish use but can not be used to justify a non fish-bearing FPC classification.

All obstructions are summarized in Table 2 below. Historic barriers and their source information are also included in this table.

Table 2: Summary of historic and new barriers to fish migration found in the Pierre and Twain Sub-units.

Watershed Code	ILP	TRIM Map	Reach	Site	TYPE	Height (m)	Length (m)	Verified in Field?	Comments
480-793000		93K.061	3	6	Falls (Historic)	5.1		Historic	FFHI 1999. Blocks all fish passage and marks upper extent of fish use in system. Located at end of reach.
480-802100		93K.061	3	18	Canyon (Historic)	50	700	Historic	FFHI 1999. Inaccessible canyon located at start of reach. Likely contains impassable barriers.
480-802100		93K.061	3	19	Falls (Historic)	10		Historic	FFHI 1999. Blocks all fish passage and marks upper extent of anadromous use. Only CT present in watershed upstream. Located at end of reach 3.
480-802100		93K.061	5	20	Falls (Historic)	5		Historic	FFHI 1999. Impassable set of 5m falls located at end of reach. Blocks CT migration.
480-802100-16400		93K.061	1	14	Falls	4		Y	Blocks all fish passage and marks upper extent of fish use in system. Located at end of reach.
480-802100-16400		93K.061	2	31	Falls (Historic)	14		Historic	FFHI 1999. Impassable but located in non fish-bearing section. Located at end of reach.
	61735	93K.061	1	17	Beaver Dam	0.5	20	Y	Temporary barrier which impedes fish passage and decreases u/s habitat value. Located in middle of reach.
	61735	93K.061	1	17	Cascade	5	18	Y	Blocks all fish passage and marks upper extent of fish use in system. Located at end of reach.
480-802100-42400		93L.070	5	24	Cascade	5	20	Y	Blocks all fish passage and marks upper extent of fish use in system. Located at end of reach.
480-802100-42400-54400		93L.070	3.1	32	Cascade	2.5	4	Y	Blocks all fish passage and marks upper extent of fish use in system. Located at end of reach.

Watershed Code	ILP	TRIM Map	Reach	Site	TYPE	Height (m)	Length (m)	Verified in Field?	Comments
	70706	93L.070	0.1	37	Falls	1		Y	Blocks all fish passage and marks upper extent of fish use in system. Located at end of reach.
	60710	93L.060	1	47	Cascade	4	15	Y	Blocks all fish passage and marks upper extent of fish use in system. Located at mouth.
	60711	93L.060	0.1	48	Subsurface Flow	1	7	Y	Blocks all fish passage and marks upper extent of fish use in system. Located at end of reach.
480-802100-64500		93L.060	1	51	Beaver Dam	1	40	Y	Temporary barrier which impedes fish passage and decreases u/s habitat value. Located in middle of reach.
480-802100-64500		93L.060	1	51	Beaver Dam	2	60	Y	Temporary barrier which impedes fish passage and decreases u/s habitat value. Located in middle of reach.
480-802100-66400-29800-6750		93L.060	2	76	Subsurface Flow			Y	Blocks all fish passage and marks upper extent of fish use in system. Located at end of reach in headwater bog.
	60734	93L.060	1	77	Subsurface Flow	6	30	Y	Blocks all fish passage and marks upper extent of fish use in system. Located ~30m u/s from mouth.
	60746	93L.060	2	91	Falls	1		Y	Blocks all fish passage and marks upper extent of fish use in system. Located at start of reach.
	60748	93L.060	1	97	Cascade	2.5	10	Y	Blocks all fish passage and marks upper extent of fish use in system. Located at start of reach.
	70730	93L.070	1	124	Cascade	4	14	Y	Blocks all fish passage and marks upper extent of fish use in system. Located at start of reach.
480-805000		93K.061	3	67	Falls (Historic)	3		Historic	FFHI 1999. Blocks all fish passage and marks upper extent of fish use in system. Located at end of reach.
480-816400		93K.051	3	76	Falls (Historic)	20		Historic	FFHI 1999. Blocks all fish passage and marks upper extent of fish use in system. Located at end of reach (~480m d/s from Augier road crossing).
480-816400		93K.051	4	77	Falls (Historic)	7		Historic	FFHI 1999. Impassable but located in non fish-bearing section. Located near start of reach, ~225m d/s from Augier road crossing.
480-816400-06800		93K.051	2.1	153	Cascade	2	8	Y	Blocks all fish passage and marks upper extent of fish use in system. Located at start of reach. Documented (FFHI 1999), but confirmed location and fish absence u/s.

4.2.1 Fish Presence and Distribution

A total of 154 reaches were sampled in the project area during this inventory, supplementing the 86 original sample sites completed in the 1999 inventory. Fish species found within these streams include cutthroat trout (CT) and lake chub (LKC), all in the Pierre Creek watershed above the 10m falls barrier at the end of reach 3. Overall fish use in the area is moderate, often limited by the lack of suitable habitat, or distribution is limited by impassable barriers and/or steep gradients.

Cutthroat trout were primarily found within Pierre Creek and two of its larger tributaries, -802100-42400 and -802100-66400, or in reaches proximal to these streams. CT distribution in these streams and a few of their tributaries often extended right to their headwater reaches.

Cutthroat trout were captured in 32 of the 154 sampled reaches and assumed present in an additional 17 reaches that were found to contain sufficient habitat to support CT use, although none were captured. This habitat was determined to be accessible to fish and fish use was subsequently inferred. CT use was mainly documented in larger channels with low average gradients. Most channel widths where CT were found were greater than 1.0m and the average gradients were all less than 7%. The remaining 105 reaches sampled were confirmed to be non fish-bearing. Of these, 74 were determined to be non classified drainages (NCD's) while 31 had fish absence confirmed usually as a result of small size and lack of sufficient habitat.

Lake chub in sampled reaches were only found in reach 6.1 of ILP 60715. This is a low gradient lake inlet reach which is wide, shallow and exposed with abundant instream vegetation cover preferable for this species. In addition, incidental (undocumented) capture of lake chub also occurred in the headwater lake reach of Pierre Creek (Reach 22), indicating that they are distributed throughout the watershed, likely utilizing similar type habitat.

4.2.2 Habitat

Overall rearing habitat is good to excellent in diverse habitat throughout the watershed while overwintering habitat is abundant in the numerous wetland reaches. Cutthroat trout were also found to utilize seasonal habitat, as indicated by the presence of dead and stranded fish in drying channels. Cutthroat trout generally utilized all habitable reaches within this area, which is typical for this species. No significant spawning areas were observed although excellent spawning gravels and opportunity are prevalent in site 22 (–802100-42400 reach 4) – 4 redds were observed in this reach. Spawning elsewhere in the watershed likely occurs on an opportunistic basis.

4.2.3 Fish Stage, Size and Life History

Fork length and maturity level of all fish sampled were recorded on the individual fish data forms. The life stage (fry, juvenile, or adult) for each fish was determined in the field based on length measurements, physical characteristics, and the habitat in which each fish was found. All captured fish appeared healthy and did not exhibit any external signs of disease.

Lake chub within this watershed were sampled only in reach 6.1 of ILP 60715. They likely reside throughout this system in low gradient reaches, influenced largely by the presence and proximity of numerous lakes and wetlands.

A total of 118 cutthroat trout were sampled within this area and both the juvenile and adult life stages were represented in this sample (Table 3). The presence of small juveniles (43-48mm) indicates that spawning had occurred earlier in the season.

Cutthroat trout in the area may exhibit one of three life history strategies; adfluvial (spawning and rearing for one to three years in streams before moving into lakes to rear or mature), fluvial (spawning and rearing in smaller tributaries and rearing as adults in mainstem rivers or large tributaries), or resident (living their entire lives within smaller, usually headwater, tributaries). Different migratory forms can live in the same river system.

Cutthroat trout are spring and early summer spawners, and will spawn when water temperatures approach 10°C, usually around mid-June in this area. Fry emergence usually occurs in two months time. As fry emerge from the spawning gravels, they will move into slow moving waters along the margins and/or pools. As the fish grow, they move into deeper pools. Fry may migrate to lakes in the summer in response to receding water levels or they may overwinter in larger streams for one to three years before migrating to lakes or the ocean in the early summer. Resident fish may have a home territory of one large pool, in which they spend their whole lives.

The following table presents data for fish species encountered in this watershed. The CPUE column in the table indicates the number of fish captured in 1000 seconds of electrofishing. This data is extracted only from those reaches where the species were sampled.

Table 3: Summary of life stage, length and CPUE data from fish sampled within the Pierre Creek watershed.

Stream Name	Watershed Code	Spp.	Stage	Number of Fish	Mean Length (mm)	Range of Lengths (mm)	CPUE (# of fish/1000 sec electrofishing)
Pierre C. Watershed	480-802100-*****	CT	J	105	80	43-146	17.6
			A	13	177	150-210	5.5
		LKC	J	16	42	38-47	146.8

Figure 2 below provides general information on frequency of occurrence of CT within different length classes for the Pierre Creek watershed for all fish captured in this inventory.

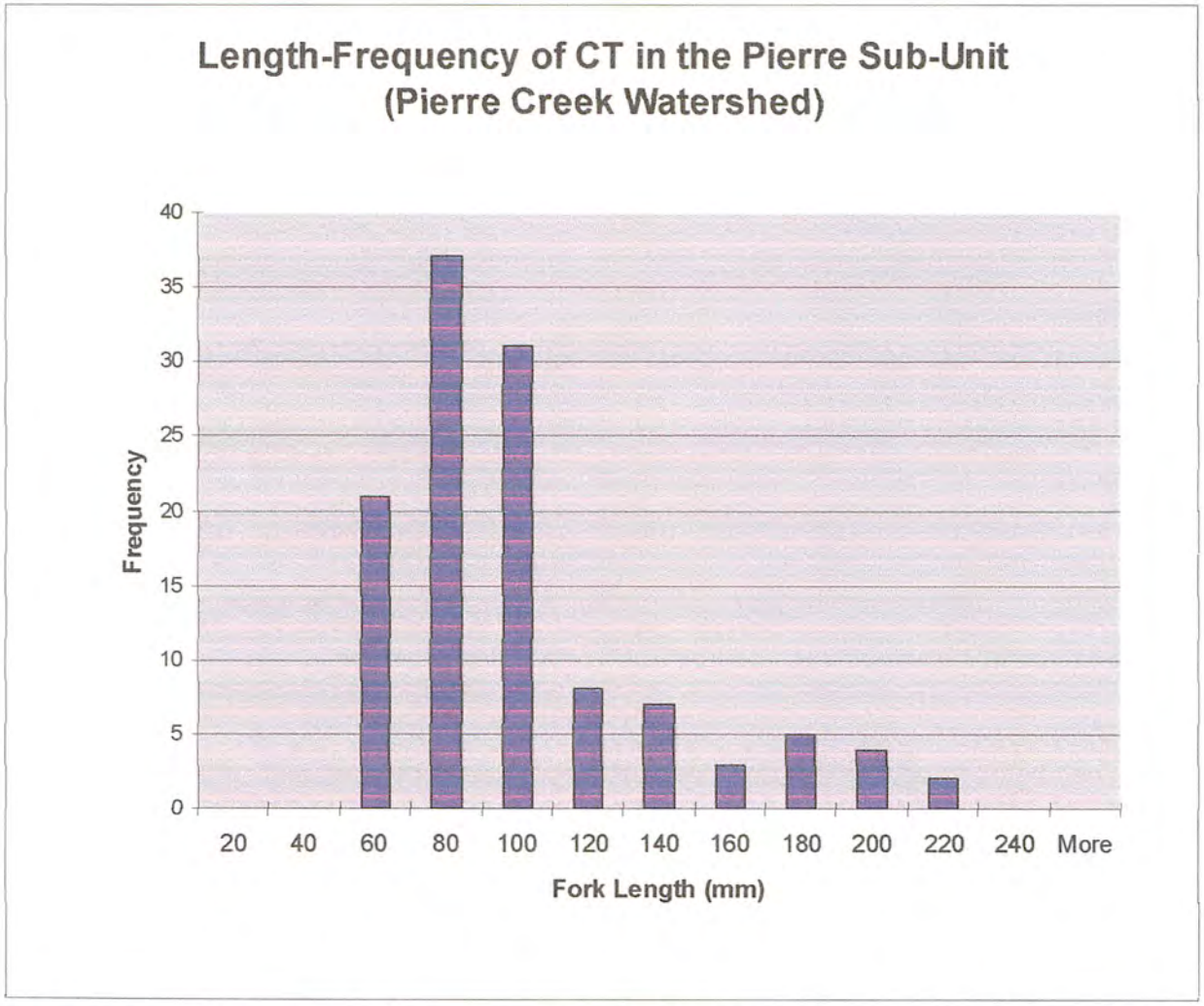

Figure 2: Length-frequency histogram of sampled CT from the Pierre Creek watershed, July 4 to August 16, 2002.

4.3 Significant Features and Fisheries Observations

4.3.1 Fish and Fish Habitat

Within the Pierre/Twain project area, no significant staging areas or large spawning grounds were identified within the sites sampled in 2002.

4.3.2 Habitat Protection Concerns

4.3.2.1 Fisheries Sensitive Zones

No fisheries sensitive zones were identified in this inventory.

4.3.2.2 Fish Above 20% Gradients

During field sampling in 1999, a resident cutthroat population was confirmed upstream from falls barriers at the end of reach 3 in Pierre Creek which block any upstream fish migration in any flow condition. However, no fish populations were detected within any sampled reach with a gradient of 20% or more.

4.3.2.3 Restoration and Rehabilitation Opportunities

No restoration or rehabilitation opportunities were identified in this inventory.

4.4 Fish Bearing Status

The following three sections summarize the fish-bearing status for all surveyed reaches within the entire project area. The first section summarizes all surveyed reaches; the second section presents information for all non fish-bearing reaches and the third section identifies reaches where follow-up sampling should be conducted. An overview of the process used in determining fish-bearing status is presented in a flowchart in Figure 3 on the following page.

4.4.1 Summary of all Surveyed Reaches

Table 4 on the following pages summarizes all surveyed reaches in the project area. In addition to confirmed fish-bearing reaches, non fish-bearing reaches and reaches requiring follow-up sampling have also been identified and summarized in this table. They are also discussed in further detail in the "Non Fish-bearing Reaches" and "Follow-up Sampling Required" sections of this report.

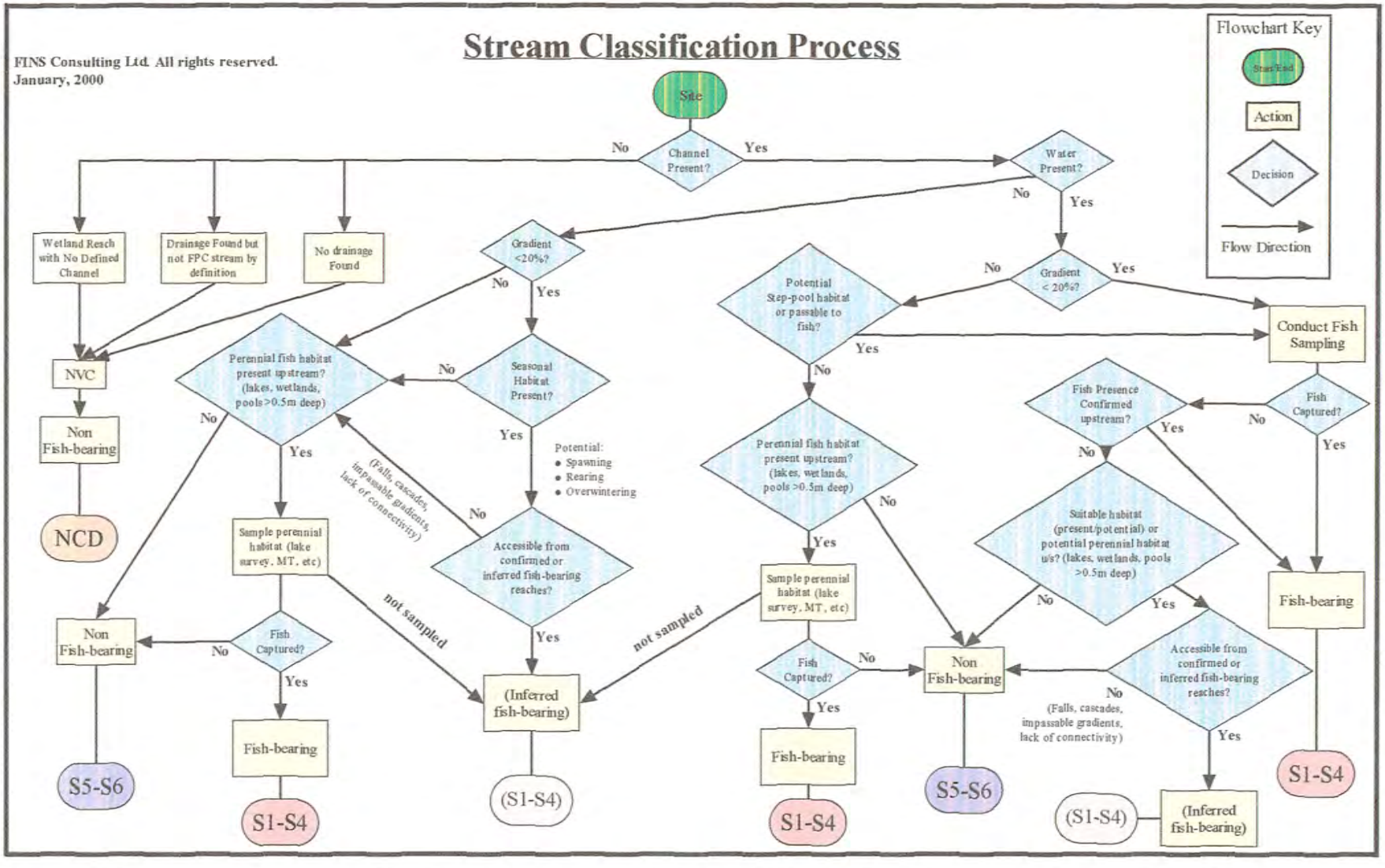

Figure 3: Flowchart of the stream classification process used in determining fish-bearing status of surveyed reaches

Table 4: Summary of data from all surveyed reaches in the Pierre and Twain Sub-units

Stream Name	Watershed Code	ILP	Reach	Site	Species	Avg CW (m)	Avg Grad (%)	Proposed FPC Class	Follow-up Sampling?	Comments
		61702	1	1	NS	NA	NS	NCD	N	Confirmed non fish-bearing.
		61705	1	2	NS	1.2	2.0	S6	N	Confirmed non fish-bearing.
		61705	2	3	NS	0.8	3.3	S6	N	Confirmed non fish-bearing.
	480-793000-13100		4	4	NS	NA	NS	NCD	N	Confirmed non fish-bearing.
	480-793000-13100-30021		1	5	NS	0.9	6.5	S6	N	Confirmed non fish-bearing.
		61713	1	6	NS	0.6	7.8	S6	N	Confirmed non fish-bearing.
		61716	1	7	NS	NA	NS	NCD*	N	Confirmed non fish-bearing.
		61725	1	8	NS	NA	NS	NCD*	N	Confirmed non fish-bearing.
Pierre C.	480-802100		16	9	CT	9.6	2.5	S2	N	Confirmed fish-bearing.
Pierre C.	480-802100		17	10	CT	4.7	1.5	S3	N	Confirmed fish-bearing.
Pierre C.	480-802100		23	11	NFC (CT)	1.2	1.3	(S4)	N	Assumed fish use - fish habitat present and accessible.
	480-802100-03500		2	12	NFC	0.6	2.8	S6	N	Confirmed non fish-bearing.
		61729	1	13	NS	NA	NS	NCD*	N	Confirmed non fish-bearing.
	480-802100-16400		1	14	CT	4.3	2.8	S3	N	Confirmed fish-bearing.
		61731	1	15	NS	NA	NS	NCD	N	Confirmed non fish-bearing.
		61734	1	16	NS	NA	NS	NCD	N	Confirmed non fish-bearing.
		61735	1	17	NFC (CT)	1.4	1.5	(S4)	N	Assumed fish use - fish habitat present and accessible.
		61739	1	18	NS	NA	NS	NCD	N	Confirmed non fish-bearing.
		61740	1	19	NS	NA	NS	NCD	N	Confirmed non fish-bearing.
		61742	1	20	NS	NA	NS	NCD*	N	Confirmed non fish-bearing.
	480-802100-42400		1	21	CT	2.3	3.5	S3	N	Confirmed fish-bearing.
	480-802100-42400		4	22	CT	2.5	2.8	S3	N	Confirmed fish-bearing.
	480-802100-42400		4.1	23	CT	2.0	2.0	S3	N	Confirmed fish-bearing.
	480-802100-42400		5	24	CT	1.0	4.8	S4	N	Confirmed fish-bearing.
	480-802100-42400		6	25	NFC	1.3	2.8	S6	N	Confirmed non fish-bearing.
	480-802100-42400-09600		1	26	NFC (CT)	1.5	1.3	(S3)	N	Assumed fish use - fish habitat present and accessible.
	480-802100-42400-09600		2	27	NFC (CT)	1.4	5.8	(S4)	N	Assumed fish use - fish habitat present and accessible.
	480-802100-42400-09600		4	28	NFC	1.3	1.3	S6	N	Confirmed non fish-bearing.
		61744	1	29	NS	NA	NS	NCD*	N	Confirmed non fish-bearing.
	480-802100-42400-54400		1	30	CT	2.0	2.3	S3	N	Confirmed fish-bearing.

Table 4: Summary of data from all surveyed reaches in the Pierre and Twain Sub-units

Stream Name	Watershed Code	ILP	Reach	Site	Species	Avg CW (m)	Avg Grad (%)	Proposed FPC Class	Follow-up Sampling?	Comments
	480-802100-42400-54400		3	31	NFC (CT)	1.7	2.8	(S3)	N	Assumed fish use - fish habitat present and accessible.
	480-802100-42400-54400		3.1	32	NFC (CT)	1.4	5.5	(S4)	N	Assumed fish use - fish habitat present and accessible.
	480-802100-42400-54400		4	33	NFC	1.2	4.0	S6	N	Confirmed non fish-bearing.
		70704	0.1	34	CT	1.8	2.3	S3	N	Confirmed fish-bearing.
		70704	1	35	NFC	0.7	2.8	S6	N	Confirmed non fish-bearing.
		70705	1	36	NS	NA	NS	NCD	N	Confirmed non fish-bearing.
		70706	0.1	37	CT	1.1	4.0	S4	N	Confirmed fish-bearing.
		70706	1	38	NFC	1.2	6.0	S6	N	Confirmed non fish-bearing.
		70709	1	39	NS	NA	NS	NCD	N	Confirmed non fish-bearing.
	480-802100-43000		1	40	NS	NA	NS	NCD	N	Confirmed non fish-bearing.
		61748	1	41	NS	NA	19.5	NCD	N	Confirmed non fish-bearing.
		61749	1	42	CT	0.9	3.3	S4	N	Confirmed fish-bearing.
		61749	2	43	NS	NA	NS	NCD	N	Confirmed non fish-bearing.
		61750	1	44	NFC	1.4	1.5	S6	N	Confirmed non fish-bearing.
		60708	1	45	NS	NA	NS	NCD	N	Confirmed non fish-bearing.
		60709	1	46	NS	NA	NS	NCD	N	Confirmed non fish-bearing.
		60710	1	47	NFC	0.7	4.3	S6	N	Confirmed non fish-bearing.
		60711	0.1	48	NFC (CT)	1.1	2.3	(S4)	N	Assumed fish use - fish habitat present and accessible.
		60711	1	49	NFC	0.9	1.3	S6	N	Confirmed non fish-bearing.
		60712	1	50	NS	NA	NS	NCD	N	Confirmed non fish-bearing.
	480-802100-64500		1	51	CT	0.9	3.5	S4	N	Confirmed fish-bearing.
	480-802100-66400		8	52	CT	2.1	0.5	S3	N	Confirmed fish-bearing.
	480-802100-66400		10	53	CT	1.3	3.4	S4	N	Confirmed fish-bearing.
	480-802100-66400		12	54	NS	NA	NS	NCD	N	Confirmed non fish-bearing.
		60714	1	55	NS	NA	40.0	NCD	N	Confirmed non fish-bearing.
		60715	6.1	56	LKC (CT)	NS	0.0	(S3)	N	Assumed fish use - fish habitat present and accessible.
		60715	7	57	NS	NA	NS	NCD	N	Confirmed non fish-bearing.
		60716	1	58	NFC	NA	NS	NCD	N	Confirmed non fish-bearing.
		60718	1	59	NS	NA	NS	NCD	N	Confirmed non fish-bearing.
		60721	1	60	NS	NA	NS	NCD	N	Confirmed non fish-bearing.

Table 4: Summary of data from all surveyed reaches in the Pierre and Twain Sub-units

Stream Name	Watershed Code	ILP	Reach	Site	Species	Avg CW (m)	Avg Grad (%)	Proposed FPC Class	Follow-up Sampling?	Comments
		60722	1	61	NS	NA	NS	NCD	N	Confirmed non fish-bearing.
		60723	1	62	NS	NA	NS	NCD	N	Confirmed non fish-bearing.
		60724	1	63	NS	NA	NS	NCD	N	Confirmed non fish-bearing.
		60727	3	64	NS	1.0	1.0	S6	N	Confirmed non fish-bearing.
		60730	1	65	NS	NA	NS	NCD	N	Confirmed non fish-bearing.
	480-802100-66400-29800		1	66	CT	2.1	6.5	S3	N	Confirmed fish-bearing.
	480-802100-66400-29800		2	67	CT	1.8	1.3	S3	N	Confirmed fish-bearing.
	480-802100-66400-29800		3	68	CT	1.5	4.5	S4	N	Confirmed fish-bearing.
	480-802100-66400-29800		6	69	CT	1.4	1.3	S4	N	Confirmed fish-bearing.
	480-802100-66400-29800		8	70	NFC (CT)	1.0	0.3	(S4)	N	Assumed fish use - fish habitat present and accessible.
	480-802100-66400-29800		9	71	NFC	1.3	4.8	S6	N	Confirmed non fish-bearing.
		60731	1	72	NS	NA	NS	NCD	N	Confirmed non fish-bearing.
		60732	1	73	NFC	NA	7.0	NCD	N	Confirmed non fish-bearing.
		60733	1	74	NS	NA	NS	NCD	N	Confirmed non fish-bearing.
	480-802100-66400-29800-6750		1	75	CT	1.0	4.0	S4	N	Confirmed fish-bearing.
	480-802100-66400-29800-6750		2	76	CT	0.7	0.3	S4	N	Confirmed fish-bearing.
		60734	1	77	NFC	0.8	15.3	S6	N	Confirmed non fish-bearing.
		60735	1	78	NS	NA	NS	NCD	N	Confirmed non fish-bearing.
		60736	2	79	NFC	0.4	0.3	S6	N	Confirmed non fish-bearing.
		60738	1	80	NS	NA	NS	NCD	N	Confirmed non fish-bearing.
		60739	1	81	NS	NA	NS	NCD	N	Confirmed non fish-bearing.
		60741	1	82	NS	NA	12.7	NCD	N	Confirmed non fish-bearing.
		60742	1	83	CT	1.7	3.3	S3	N	Confirmed fish-bearing.
		60742	2	84	CT	1.6	1.0	S3	N	Confirmed fish-bearing.
		60742	5	85	CT	1.2	6.5	S4	N	Confirmed fish-bearing.
		60742	6	86	CT	1.3	0.5	S4	N	Confirmed fish-bearing.
		60743	1	87	NS	NA	NS	NCD	N	Confirmed non fish-bearing.
		60744	0.1	88	NFC (CT)	1.1	2.8	(S4)	N	Assumed fish use - fish habitat present and accessible.
		60744	1	89	NFC	0.5	5.8	S6	N	Confirmed non fish-bearing.
		60745	1	90	NS	NA	NS	NCD	N	Confirmed non fish-bearing.

Table 4: Summary of data from all surveyed reaches in the Pierre and Twain Sub-units

Stream Name	Watershed Code	ILP	Reach	Site	Species	Avg CW (m)	Avg Grad (%)	Proposed FPC Class	Follow-up Sampling?	Comments
		60746	2	91	NFC	0.6	0.8	S6	N	Confirmed non fish-bearing.
	480-802100-66400-72600		1	92	CT	4.5	0.0	S3	N	Confirmed fish-bearing.
	480-802100-66400-72600		2	93	NFC (CT)	1.3	0.5	(S4)	N	Assumed fish use - fish habitat present and accessible.
	480-802100-66400-72600		4	94	NS	NA	NS	NCD	N	Confirmed non fish-bearing.
		60747	1	95	NFC (CT)	0.7	0.8	(S4)	N	Assumed fish use - fish habitat present and accessible.
		60747	2	96	NS	0.6	6.5	S6	N	Confirmed non fish-bearing.
		60748	1	97	NFC	0.7	1.3	S6	N	Confirmed non fish-bearing.
		60749	1	98	NS	NA	NS	NCD	N	Confirmed non fish-bearing.
		60751	1	99	NS	NA	NS	NCD	N	Confirmed non fish-bearing.
		60752	1	100	NS	NA	10.5	NCD	N	Confirmed non fish-bearing.
		60753	1	101	NS	NA	5.0	NCD	N	Confirmed non fish-bearing.
		60754	1	102	NS	NA	NS	NCD	N	Confirmed non fish-bearing.
		60755	1	103	NS	NA	NS	NCD	N	Confirmed non fish-bearing.
		60756	2	104	CT	1.8	0.3	S3	N	Confirmed fish-bearing.
		60757	1	105	NS	NA	NS	NCD	N	Confirmed non fish-bearing.
		60758	1	106	NS	NA	NS	NCD	N	Confirmed non fish-bearing.
		60800	1	107	NFC	0.6	12.5	S6	N	Confirmed non fish-bearing.
		70718	1	108	NS	NA	NS	NCD	N	Confirmed non fish-bearing.
		70719	1	109	NFC	0.9	3.3	S6	N	Confirmed non fish-bearing.
		70720	1	110	NS	NA	NS	NCD	N	Confirmed non fish-bearing.
	480-802100-79900		5	111	NFC (CT)	1.4	3.0	S3	N	Confirmed fish-bearing (CT captured u/s).
	480-802100-79900		7	112	NFC (CT)	1.6	0.5	S3	N	Confirmed fish-bearing (CT captured u/s).
	480-802100-79900		8	113	NFC (CT)	0.9	4.7	(S4)	N	Assumed fish use - fish habitat present and accessible.
	480-802100-79900		9	114	NS	NA	NS	NCD	N	Confirmed non fish-bearing.
		70721	1	115	NS	NA	NS	NCD	N	Confirmed non fish-bearing.
		70722	2	116	NS	NA	NS	NCD	N	Confirmed non fish-bearing.
		70723	1	117	NS	NA	NS	NCD	N	Confirmed non fish-bearing.
		70725	1	118	CT	1.2	2.8	S4	N	Confirmed fish-bearing.
		70725	2	119	NFC	1.3	8.0	S6	N	Confirmed non fish-bearing.
		70726	1	120	NS	NA	NS	NCD	N	Confirmed non fish-bearing.

Table 4: Summary of data from all surveyed reaches in the Pierre and Twain Sub-units

Stream Name	Watershed Code	ILP	Reach	Site	Species	Avg CW (m)	Avg Grad (%)	Proposed FPC Class	Follow-up Sampling?	Comments
		70727	1	121	NS	NA	NS	NCD	N	Confirmed non fish-bearing.
		70728	1	122	NS	NA	31.0	NCD	N	Confirmed non fish-bearing.
		70729	1	123	NS	NA	NS	NCD	N	Confirmed non fish-bearing.
		70730	1	124	NFC	1.2	14.0	S6	N	Confirmed non fish-bearing.
		70732	0.1	125	NFC (CT)	0.9	11.0	(S4)	N	Assumed fish use - fish habitat present and accessible.
		70732	1	126	NS	NA	15.0	NCD	N	Confirmed non fish-bearing.
		70735	1	127	NS	0.9	7.3	S6	N	Confirmed non fish-bearing.
		70736	1	128	NS	NA	4.0	NCD	N	Confirmed non fish-bearing.
		70737	1	129	NS	NA	NS	NCD	N	Confirmed non fish-bearing.
		70738	1	130	NFC	0.8	4.3	S6	N	Confirmed non fish-bearing.
		70739	1	131	NS	NA	NS	NCD	N	Confirmed non fish-bearing.
		70740	1	132	NS	NA	NS	NCD	N	Confirmed non fish-bearing.
		70741	1	133	NS	NA	NS	NCD	N	Confirmed non fish-bearing.
		70742	2	134	NFC	1.1	4.7	S6	N	Confirmed non fish-bearing.
		70743	1	135	NS	NA	NS	NCD*	N	Confirmed non fish-bearing.
		70746	1	136	CT	1.7	6.5	S3	N	Confirmed fish-bearing.
		70746	2	137	CT	1.6	0.5	S3	N	Confirmed fish-bearing.
		70746	3	138	NS	NA	NS	NCD	N	Confirmed non fish-bearing.
		70747	1	139	NFC (CT)	0.4	1.2	(S4)	N	Assumed fish use - fish habitat present and accessible.
		70747	2	140	NS	NA	NS	NCD	N	Confirmed non fish-bearing.
		70748	1	141	NS	NA	NS	NCD	N	Confirmed non fish-bearing.
		70750	3	142	NS	NA	6.0	NCD	N	Confirmed non fish-bearing.
		70751	2	143	NFC	0.6	12.8	S6	N	Confirmed non fish-bearing.
		70753	1	144	NS	NA	NS	NCD	N	Confirmed non fish-bearing.
		70754	1	145	NS	NA	NS	NCD	N	Confirmed non fish-bearing.
		70756	1	146	NS	NA	NS	NCD	N	Confirmed non fish-bearing.
		70757	1	147	NS	NA	NS	NCD*	N	Confirmed non fish-bearing.
		70758	1	148	CT	1.6	2.3	S3	N	Confirmed fish-bearing.
		70758	2	149	NS	NA	NS	NCD	N	Confirmed non fish-bearing.
		70759	1	150	NS	NA	19.5	NCD	N	Confirmed non fish-bearing.

Table 4: Summary of data from all surveyed reaches in the Pierre and Twain Sub-units

Stream Name	Watershed Code	ILP	Reach	Site	Species	Avg CW (m)	Avg Grad (%)	Proposed FPC Class	Follow-up Sampling?	Comments
		70760	0.1	151	CT	1.5	1.5	S3	N	Confirmed fish-bearing.
		70760	1	152	CT	0.8	4.0	S4	N	Confirmed fish-bearing.
	480-816400-06800		2.1	153	NFC	1.6	14.0	S6	N	Confirmed non fish-bearing.
	480-816400-06800-04500		1	154	NFC	1.4	5.5	S6	N	Confirmed non fish-bearing.

4.4.2 Non Fish-bearing Reaches

This section summarizes all sampled reaches within this project area that have been designated as non fish-bearing. This has been based on interpretations and conclusions from the synthesis of data collected during Phases I through IV of this inventory. In addition, historic fish sampling results from numerous watersheds in the area (Babine Forest Products Co. 1997 through 2001 Reconnaissance and Operational Inventories) have also been taken into consideration in this section. Table 5 below summarizes this categorized information.

Table 5: Fish sampling results for categorized reach classes (from 1997 through 2001 inventory data).

Reach Gradient Class	Reach Pattern Type	Reach Size Class								
		Small (1st order)			Medium (2nd and 3rd order)			Large (4th and higher order)		
		Total # of Reaches	# of Reaches with Fish Capture	%	Total # of Reaches	# of Reaches with Fish Capture	%	Total # of Reaches	# of Reaches with Fish Capture	%
1 (≤4%)	ST/SI/IR	270	4	1.48%	554	127	22.92%	99	77	77.78%
	IM/ME/TM	34	3	8.82%	119	26	21.85%	24	11	45.83%
2 (>4% and ≤8%)	ST/SI/IR	172	1	0.58%	322	66	20.50%	29	19	65.52%
	IM/ME/TM	8	0	0.00%	2	1	50.00%	0	0	0.00%
3 (>8% and ≤20%)	ST/SI/IR	144	2	1.39%	148	20	13.51%	9	4	44.44%
	IM/ME/TM	0	0	0.00%	0	0	0.00%	0	0	0.00%
4 (>20% and ≤30%)	ST/SI/IR	45	0	0.00%	25	0	0.00%	1	0	0.00%
	IM/ME/TM	0	0	0.00%	0	0	0.00%	0	0	0.00%
5 (>30%)	ST/SI/IR	9	0	0.00%	4	0	0.00%	0	0	0.00%
	IM/ME/TM	0	0	0.00%	0	0	0.00%	0	0	0.00%

Sampled reaches where fish absence is suspected but not confirmed are not included in this section. They are discussed in the "Follow-up Sampling Required" section of this report.

Determining whether or not any fish use occurs in a specific reach is a complex process, involving much more than applying fish sampling results on a site-specific basis. Specifically, when applying a non fish-bearing recommendation when fish are not captured in a sampling event, a more systematic process is required in order to provide an adequate rationale to support a conclusion of fish absence. Biological evaluation is used which factors in such considerations as known fish distributions and behavior, barriers, gradients, invertebrate presence, habitat quality, and presence/absence of headwater lakes. This process is summarized in the flowchart in Figure 3 above.

As a general rule, two conditions must usually exist in order for fish to inhabit a specific stream reach; 1) presence of fish habitat and 2) accessibility to that habitat. There are exceptions to this, such as presence of resident or adfluvial populations above barriers which otherwise block access, but these situations are considered on an individual basis when appropriate sampling can be undertaken to accurately determine fish presence under these circumstances.

Determining presence of fish habitat requires biological judgment but is based on many tangible factors. A "snapshot" method is used to determine presence of fish habitat at the time of sampling, but this is not sufficient when lack of water limits available habitat. Under these circumstances, a temporal approach is required which factors in the potential for fish habitat presence during a different flow period. In this manner, different habitat requirements for suspected fish species are also considered, such as potential seasonal use for rearing (i.e., higher flow rearing or refuge habitat) or spawning (i.e. suitable gravels, gradient and potential flow). Again, biological judgment is required to recognize this potential habitat, bearing in mind how the different flow regimes may affect the availability of this habitat. Moreover, the presence of potential overwintering or perennial habitat upstream in the watershed (i.e. lakes, wetlands, pools >0.5m deep) is also taken into account and has influence on the fish-bearing status of a specific reach. Existence of habitat or potential habitat, if present, is noted and described in the comments on the site cards.

Once presence of fish habitat has been established, it must be determined whether fish are capable of accessing this habitat. The presence of obstructions to fish in the form of falls, cascades, impassable gradients and lack of connectivity within a watershed may limit fish distribution within a watershed and must be evaluated. When questionable obstructions or soft barriers (i.e., beaver dams, wetlands, NVC reaches) are present, the process for determining the presence of fish habitat upstream must be undertaken and combined with adequate sampling in order to determine fish use.

The fish-bearing status of a specific reach is dependent on the presence of fish habitat, the accessibility to that habitat and is supported by the results of fish sampling. The above process for determining fish presence is an overview of the variables evaluated before fish-bearing status can be accurately ascertained. This entire process is always supplemented by existing fisheries information and interpretations from map and air photo analysis.

Table 6 on the following pages is a summary of all surveyed reaches within this project area that have been recommended for a non fish-bearing designation. It includes relevant site-specific data, some historical information and comments that provide a brief rationale to support the interpretation. The table is simply a summary of the interpretation, and not meant to be a reiteration of the data it summarizes. This data is available in the appendices included in this report.

Once a non-fish bearing conclusion has been established for a sampled reach, all reaches located upstream from that location are considered to be non fish-bearing and no further sampling is required to confirm this conclusion. This is inherent in the process used to determine the non fish-bearing status. Accordingly, only those reaches that were sampled and confirmed to be non fish-bearing are included in this section.

Interpretive mapping of non fish-bearing streams mirrors this procedure, using a solid blue line to denote fish absence, both in the sampled reach and in all reaches upstream. In the case of non classified drainages, a solid green line has been used. A dashed green line on the interpretive maps denotes that no drainage was present as mapped at 1:20,000. These are still referred to as non fish bearing and all reaches upstream are coloured solid blue.

Table 6: Summary of data from surveyed non-fish-bearing reaches in tributaries in the Pierre and Twain Sub-units

Watershed Code	ILP	Reach	Site	Date	Avg CW (m)	Avg Grad (%)	Avg Wb Depth (m)	Exp FPC Spp.	FPC Class	Method	EF Dist (m)	EF Time (s)	Flow Stage	Water Temp (C)	Conductivity (uS/cm)	Turbidity	Voltage (V)	Frequency (Hz)	Pulse Width (uS)	Comments
	61702	1	1	2002/08/15	NA	NS	0.0	RB	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. Steep dip in slope (~18%) - signs of snowmelt, surface runoff only, no scour, no channel, not a stream. All vegetated by Devil's club and mixed forest.
	61705	1	2	2002/08/15	1.2	2.0	0.0	RB	S6	NS			L							No fish habitat - seasonal creek with very poor instream cover when watered, mainly overstream vegetation and sticks, watered likely for very short time in spring and maybe early summer. Rearing Habitat - no potential for fish - not preferable habitat, fairly fast flow and lacks pools (when watered). Almost all reach is Kew C. mainstem and only 70m is in R1.
	61705	2	3	2002/08/15	0.8	3.3	0.1	RB	S6	NS			L							No fish habitat - small, shallow, and seasonal stream, watered only during runoff or heavy rain, lacks sufficient habitat to support seasonal rearing for CO. No deep pools or good instream cover. Flows through small swale within old cutblock.
480-793000-13100		4	4	2002/08/15	NA	NS	0.0	RB	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. No fish habitat - NCD - seepage - channel dissipates into flats, habitable to here.
480-793000-13100-30021		1	5	2002/08/15	0.9	6.5	0.2	RB	S6	NS			L							No fish habitat - small and seasonal stream, watered only during spring runoff and early summer. Fast when flowing with almost no instream cover, no habitat for fish. Flows through small gully vegetated by alder.
	61713	1	6	2002/08/15	0.6	7.8	0.2	RB	S6	NS			L							No fish habitat - small, seasonal and moderately steep stream, flowing only during spring runoff, no instream cover when watered, no pools observed, no fish in parent stream in R2 and R3. Flows through gully in a cutblock.
	61716	1	7	2002/08/15	NA	NS	0.0	RB	NCD*	NS			NA							No stream/ drainage present at mapped location or within 100m radius.
	61725	1	8	2002/08/16	NA	NS	0.0	RB	NCD*	NS			NA							No stream/ drainage present at mapped location or within 100m radius. Obviously, no fish habitat or potential!
480-802100-03500		2	12	2002/08/16	0.6	2.8	0.2	RB	S6	EF	100	37	L	10	160	C	500	80	6	Poor rearing - no flow, all fines; no spawning or overwintering habitat - only 2 shallow stagnant pools, poor quality. Sampled NFC in 1999 too. Reach 1 d/s may be used as refuge, but habitat there is marginal. Note * - hundreds of SK spawning observed in Pierre C.!
	61729	1	13	2002/07/06	NA	NS	0.0	CT	NCD*	NS			NA							No stream/ drainage present at mapped location or within 100m radius. Trib is also NCD*. Mapped "stream" is totally dry gully with no evidence of channel, scour or water, also drops 40m into Pierre C. canyon at "mouth".
	61731	1	15	2002/07/06	NA	NS	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. "Stream" is slight moist depression with no water, no fluvium, no channel bed - no fish habitat or access.
	61734	1	16	2002/07/06	NA	NS	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. Not a stream - isolated organic moss puddles in forest - no bed, fluvium, flow or habitat.

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Watershed Code	ILP	Reach	Site	Date	Avg CW (m)	Avg Grad (%)	Avg Wb Depth (m)	Exp FPC Spp.	FPC Class	Method	EF Dist (m)	EF Time (s)	Flow Stage	Water Temp (C)	Conductivity (uS/cm)	Turbidity	Voltage (V)	Frequency (Hz)	Pulse Width (uS)	Comments
	61739	1	18	2002/07/06	NA	NS	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. Not a creek - Devil's Club fan, no channel, no fluvium - moist ground.
	61740	1	19	2002/07/07	NA	NS	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. NCD - no fluvium, no banks - seasonal runoff after snowmelt, descends over 40% embankment (10m) into Pierre C. from 6% slope bench.
	61742	1	20	2002/07/07	NA	NS	0.0	CT	NCD*	NS			NA							No stream/ drainage present at mapped location or within 100m radius.
480-802100-42400		6	25	2002/07/08	1.3	2.8	0.2	CT	S6	EF	100	348	M	10	30	C	700	80	6	Marginal habitat present but isolated above cascade at end of R.5 d/s. No fish present in system u/s from cascade. NFC below cascade as well.
480-802100-42400-09600		4	28	2002/07/08	1.3	1.3	0.3	CT	S6	EF	120	389	M	7	40	C	700	80	6	Marginal rearing habitat present but no spawning or overwintering. NFC in this site and 2 sites d/s = no CT use.
	61744	1	29	2002/07/07	NA	NS	0.0	CT	NCD*	NS			NA							No stream/ drainage present at mapped location or within 100m radius.
480-802100-42400-54400		4	33	2002/07/23	1.2	4.0	0.3	CT	S6	EF	200	506	L	9	30	C	600	80	6	Impassable 2.5m cascade at end of reach 3.1 d/s blocks all fish passage and marks upper extent of fish use. No fish present in watershed u/s from cascade. Sampled nice CT habitat extensively. 3rd site NFC in creek.
	70704	1	35	2002/07/23	0.7	2.8	0.2	CT	S6	EF	250	167	L	9	30	C	600	80	6	Marginal FPC stream, seasonally wetted, tiny channel over organics, detritus with no fish habitat or potential. Frequently discontinuous channel/subflow.
	70705	1	36	2002/07/23	NA	NS	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. Not a creek - seepage, occasionally wet spots in moss - no continuous channel, no fluvium, no fish habitat.
	70706	1	38	2002/07/23	1.2	6.0	0.3	CT	S6	EF	150	313	L	9	30	C	600	80	6	Impassable 1.0m falls at end of reach 0.1 d/s blocks all fish passage and marks upper extent of fish use. No fish present in watershed u/s from falls. Also NFC below falls almost to mouth. Has suitable habitat but small falls d/s enough to block access and prevent CT use. No significant overwintering habitat to sustain isolated population, no spawning habitat - substrate = cobble or angular or detritus.
	70709	1	39	2002/07/08	NA	NS	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. Not an FPC stream, no fish habitat or passage, no fluvium or continuous channel bed.
480-802100-43000		1	40	2002/07/07	NA	NS	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. Seepage in 30m wide valley with discontinuous channel, no fluvium - organics and sticks, frequently percolates through forest floor.
	61748	1	41	2002/07/07	NA	19.5	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. NCD, drains valley then descends to Pierre C. at 32% for 30m, flattens out on bench. No fluvium, no banks.

Table 6: Summary of data from surveyed non-fish-bearing reaches in tributaries in the Pierre and Twain Sub-units

Watershed Code	ILP	Reach	Site	Date	Avg CW (m)	Avg Grad (%)	Avg Wb Depth (m)	Exp FPC Spp.	FPC Class	Method	EF Dist (m)	EF Time (s)	Flow Stage	Water Temp (C)	Conductivity (uS/cm)	Turbidity	Voltage (V)	Frequency (Hz)	Pulse Width (uS)	Comments
	61749	2	43	2002/07/08	NA	NS	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. Stream gets most water from this bog, NFC up to site UTM anyway, but channel disperses in grassy meadow with no fish habitat or connection u/s. No overwintering potential u/s.
	61750	1	44	2002/07/08	1.4	1.5	0.3	CT	S6	EF	150	182	M	7	40	C	600	80	6	Lacks sufficient fish habitat - no overwintering or spawning habitat or potential. No rearing habitat - shallow, standing water over organics, algae filled (low Oxygen). Marginal channel present. Flows into Pierre C. side channel. Water from gully wall percolation.
	60708	1	45	2002/07/09	NA	NS	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. Mostly underground draw in gully.
	60709	1	46	2002/07/09	NA	NS	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. NCD - discontinuous drainage, no fluvium, no banks, steep at valley wall, no connectivity to Pierre C. Seepage disperses 50m away from Pierre C.
	60710	1	47	2002/07/09	0.7	4.3	0.1	CT	S6	EF	200	274	M	6	20	C	800	80	6	Small stream with marginal habitat, but all isolated above 4m high cascade barrier near mouth. No fish present in stream u/s from cascade. Above cascade = ~50% subflow.
	60711	1	49	2002/07/09	0.9	1.3	0.2	CT	S6	EF	100	177	M	7	20	C	800	80	6	Subsurface flow at 15% gradient at start of reach is impassable to fish and marks upper extent of potential fish use in stream. No fish present in system upstream from this point. No spawning or overwintering habitat present in stream.
	60712	1	50	2002/07/09	NA	NS	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. NCD - no fluvium, no banks, not a creek.
480-802100-66400		12	54	2002/07/25	NA	NS	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. "Stream" is discontinuous, disconnected standing water with no fluvium or continuous channel bed. Watershed atlas mainstem = wrong, this reach is actually trib to mainstem. CT observed in parent wetland R.11 - presence extended.
	60714	1	55	2002/07/09	NA	40.0	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. Seasonal (snowmelt) drainage from meadow down to wetland adjacent to - 802100-66400 at 40% gradient. Channelized for 40m only within wetland.
	60715	7	57	2002/07/26	NA	NS	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. No trace of any channel, percolates through ground, no fluvium, squishy ground in wetland. Drains wetland u/s.
	60716	1	58	2002/07/29	NA	NS	0.0	CT	NCD	EF	150	109	NA	5	40	C	700	80	6	Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. site = meadow near mouth.

Table 6: Summary of data from surveyed non-fish-bearing reaches in tributaries in the Pierre and Twain Sub-units

Watershed Code	ILP	Reach	Site	Date	Avg CW (m)	Avg Grad (%)	Avg Wb Depth (m)	Exp FPC Spp.	FPC Class	Method	EF Dist (m)	EF Time (s)	Flow Stage	Water Temp (C)	Conductivity (uS/cm)	Turbidity	Voltage (V)	Frequency (Hz)	Pulse Width (uS)	Comments
																				Drainage has flow and frequent channelized sections (on gravels), but common underground flow, both percolation and continuous, but no accessible fish habitat. Channelized sections too shallow with no pools or CT habitat anyway. No overwintering habitat u/s.
	60718	1	59	2002/07/29	NA	NS	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. Drainage is just a shrubby corridor with no evidence of channel or flow, just seepage at 30% gradient down gully wall to parent stream.
	60721	1	60	2002/07/29	NA	NS	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. Mapped stream is just an occasionally moist shrubby corridor with no channel or flowing water present.
	60722	1	61	2002/07/26	NA	NS	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. Seepage draining squishy and brushy meadow, no channel, no fluvium.
	60723	1	62	2002/07/26	NA	NS	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. Squishy valley from headwater pond, no channel, no fluvium, not a stream.
	60724	1	63	2002/07/26	NA	NS	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. Seepage draining couple of wetlands u/s, discontinuous channel, water percolates through sedges, not a stream.
	60727	3	64	2002/07/26	1.0	1.0	0.1	CT	S6	NS			L							No fish habitat - stream accessible and passable to the pond in R2, but lake/pond too shallow to provide suitable overwinter habitat or rearing in summer - exposed, shallow - high water temp. in summer. Flows through shrubby valley with many beaver ponds filled with algae and stagnant water, just below the pond (R.2) is dry and nicely channelized in forested section near mouth. Seasonal creek with water only during runoff. Vegetated channel, loses stream characteristics above pond.
	60730	1	65	2002/07/09	NA	NS	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. Seepage - no fluvium, no banks - drains moist meadow u/s and discharges over 10% slope into parent stream. Densely vegetated by willows.
480-802100-66400-29800		9	71	2002/07/24	1.3	4.8	0.1	CT	S6	EF	150	301	L	10	20	C	800	80	6	No fish habitat - small, shallow and intermittent trickle, lacks of good flow. Channel exposed and full of organics.
	60731	1	72	2002/07/24	NA	NS	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. Seepage with disconnected mucky puddles, no fluvium, no channel, no banks.
	60732	1	73	2002/07/24	NA	7.0	0.0	CT	NCD	EF	10	20	NA	9	40	C	700	80	6	Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. Seepage, channelized but intermittent flow near mouth for 50 m, then discontinuous, dry sections, wet

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Watershed Code	ILP	Reach	Site	Date	Avg CW (m)	Avg Grad (%)	Avg Wb Depth (m)	Exp FPC Spp.	FPC Class	Method	EF Dist (m)	EF Time (s)	Flow Stage	Water Temp (C)	Conductivity (uS/cm)	Turbidity	Voltage (V)	Frequency (Hz)	Pulse Width (uS)	Comments
																				puddles and short (10-15m) channel over organic fines and cobbles. Drains swamps u/s.
	60733	1	74	2002/07/24	NA	NS	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. Seepage - drains adjacent wetland to parent stream. No fluvium, no channel past 25m from mouth. Drainage is not as mapped - ends past 35m u/s from mainstem.
	60734	1	77	2002/07/24	0.8	15.3	0.1	CT	S6	EF	100	39	L	8	50	C	600	80	6	No fish habitat - shallow and intermittent stream, percolates underground ~30m u/s from mouth, then becomes organic steps with isolated shallow pools.
	60735	1	78	2002/07/24	NA	NS	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. Drainage disperses in forest floor ~50m u/s from "mouth", then has discontinuous and already dry channel, no fluvium, drains wetland u/s.
	60736	2	79	2002/07/24	0.4	0.3	0.2	CT	S6	EF	150	133	M	22	30	C	800	80	6	No fish habitat - tiny, shallow and exposed channel through wetland with no suitable fish habitat or potential.
	60738	1	80	2002/07/24	NA	NS	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. Seepage - drains wetland u/s, water seeps through ground with occasional wet and squishy spots.
	60739	1	81	2002/07/24	NA	NS	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. Seepage draining to mainstem, no channel, no fluvium, no water, just squishy ground.
	60741	1	82	2002/07/25	NA	12.7	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. On top of valley wall (12m), stream flattens out and channel/water disappears. "Stream" is channelized at mouth, but is tiny steep trickle down valley wall. No water on flat portion, too steep in watered section, no perennial habitat, no connection to parent due to cascade and NCD status.
	60743	1	87	2002/07/25	NA	NS	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. Mapped stream is NCD, squishy ground up to lake. At lake outlet, stream is slightly channelized before dispersing in grassy meadow. No connection to lake, but lake may have another unmapped outlet that provides access for fish from -66400. No fish observed in lake. NCD to lake, but lake dashed red.
	60744	1	89	2002/07/25	0.5	5.8	0.1	CT	S6	EF	150	279	M	9	40	C	700	80	6	Very poor overall fish habitat - extremely shallow, barely enough water to cover fish, lacks instream cover. No potential for fish habitat. Lacks suitable gravels for spawning and has no overwintering potential. Inferred fish use (unlikely) to here, but enough is enough (2 sites NFC). At the end of site, becomes borderline creek, intermittent flow, etc.
	60745	1	90	2002/07/25	NA	NS	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. "Stream" is seepage down meadow valley wall, no fluvium or continuous channel bed.

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Watershed Code	ILP	Reach	Site	Date	Avg CW (m)	Avg Grad (%)	Avg Wb Depth (m)	Exp FPC Spp.	FPC Class	Method	EF Dist (m)	EF Time (s)	Flow Stage	Water Temp (C)	Conductivity (uS/cm)	Turbidity	Voltage (V)	Frequency (Hz)	Pulse Width (uS)	Comments
	60746	2	91	2002/07/25	0.6	0.8	0.2	CT	S6	EF	150	384	L	10	30	C	700	80	6	No fish habitat - reach is tiny, shallow trickle through meadow, heavily vegetated with willow shrub. Channel frequently dry and discontinuous channel with abundant subsurface percolation through meadow. Access impeded by percolation in R.1 d/s. Substrate 95% organics.
480-802100-66400-72600		4	94	2002/07/26	NA	NS	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. Nothing but grassy meadow, no channel, no fluvium.
	60747	2	96	2002/07/26	0.6	6.5	0.1	CT	S6	NS			L							No fish habitat - seasonal, tiny, channel already dry. Also no fish access d/t frequent subflow in 15% gradient section at start of reach. Frequently vegetated channel with no perennial habitat.
	60748	1	97	2002/07/26	0.7	1.3	0.2	CT	S6	EF	100	164	M	13	50	L	600	80	6	Very poor overall fish habitat and no potential for fish use - isolated above cascade barrier at start of reach which marks upper extent of assumed fish use.
	60749	1	98	2002/07/26	NA	NS	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. Drains wetland above 25% 15m long embankment, no channel, no fluvium, not a stream.
	60751	1	99	2002/07/26	NA	NS	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. Discontinuous channel draining meadow, no fluvium, dry sections, accessible to fish for ~25m in parallel length to -66400, then percolates through ground.
	60752	1	100	2002/07/26	NA	10.5	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. Drains sloping meadow adjacent to right bank of parent stream. Discontinuous channel and fluvium.
	60753	1	101	2002/07/26	NA	5.0	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. Drains squishy meadow with some isolated and short channelized sections. Disperses 20m u/s from lake, inaccessible to fish, lacks fluvium, continuity.
	60754	1	102	2002/07/25	NA	NS	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. Access blocked at mouth - absorbed further into grassy wetland on lake shore. Walked down from pond in upper reach, isolated water puddles on organics, no scour power, no defined continuous channel bed, fluvium.
	60755	1	103	2002/07/25	NA	NS	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. Enters 60754 ~80m from mouth, but not an FPC stream, lacks channel bed and banks.
	60757	1	105	2002/07/25	NA	NS	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches.
	60758	1	106	2002/07/25	NA	NS	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. Reach u/s from site rises out of meadow and lacks continuous channel bed or fluvium and contains no accessible habitat. Reach below (in meadow) is inferred CT, broken into R. 0.1.

Table 6: Summary of data from surveyed non-fish-bearing reaches in tributaries in the Pierre and Twain Sub-units

Watershed Code	ILP	Reach	Site	Date	Avg CW (m)	Avg Grad (%)	Avg Wb Depth (m)	Exp FPC Spp.	FPC Class	Method	EF Dist (m)	EF Time (s)	Flow Stage	Water Temp (C)	Conductivity (uS/cm)	Turbidity	Voltage (V)	Frequency (Hz)	Pulse Width (uS)	Comments
																				FPC of R. 0.1 = (S4).
	60800	1	107	2002/07/23	0.6	12.5	0.1	CT	S6	EF	100	109	L	9	30	C	700	80	6	Steep and shallow with no usable fish habitat - valley wall trickle with frequent long stretches of subsurface flow. Might be used near mouth, but NFB from here (60m u/s from mapped mouth).
	70718	1	108	2002/07/23	NA	NS	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. Stream is seasonally moist seepage with no continuous channel bed, no flow, no water, no habitat.
	70719	1	109	2002/07/23	0.9	3.3	0.1	CT	S6	EF	300	88	L	9	30	C	700	80	6	Stream is dry and inaccessible at mouth, then almost NCD 60m u/s from mouth (marginal FPC stream). Intermittent and disconnected water, subsurface percolation through organics. No usable fish habitat.
	70720	1	110	2002/07/23	NA	NS	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. Walked 200m radius from mapped mouth, found a couple wet spots that may have been the mapped stream, but no channel bed or fluvium present.
480-802100-79900		9	114	2002/07/30	NA	NS	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. Headwater meadow, squishy meadow where creek originates, no channel (continuous), no fluvium. No connection to reach d/s.
	70721	1	115	2002/07/29	NA	NS	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. Drainage not FPC stream - any water from u/s absorbed into wetland water table. No connection and no channel present.
	70722	2	116	2002/07/29	NA	NS	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. Flow = 100ml/min. R.1 wetland was called S3 but is actually just a wetland back channel from parent stream. "stream" = discontinuous mud channel.
	70723	1	117	2002/07/29	NA	NS	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. No channel present, only moist ground. Any water is soaked into ground, no fish habitat, no passage, no possible use.
	70725	2	119	2002/07/29	1.3	8.0	0.3	CT	S6	EF	100	264	L	10	40	C	700	80	6	Shallow and seasonal trickle among cobbles, frequent dry sections and moderate gradient. Dense OSV. CT use limited to section near mouth, proximal to Pierre, would have got them here. No spawning habitat - all large cobble mixed with fines/organics. No overwintering habitat and no suitable rearing - very shallow and seasonal, lacks deep pool habitat.
	70726	1	120	2002/07/29	NA	NS	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. Channelized at mouth, but only d/t Pierre C. s/c flow. Channel/ water disappears and percolates immediately u/s from s/c.

Table 6: Summary of data from surveyed non-fish-bearing reaches in tributaries in the Pierre and Twain Sub-units

Watershed Code	ILP	Reach	Site	Date	Avg CW (m)	Avg Grad (%)	Avg Wb Depth (m)	Exp FPC Spp.	FPC Class	Method	EF Dist (m)	EF Time (s)	Flow Stage	Water Temp (C)	Conductivity (uS/cm)	Turbidity	Voltage (V)	Frequency (Hz)	Pulse Width (uS)	Comments
	70727	1	121	2002/07/29	NA	NS	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. "Creek" also enter a small Pierre C. s/c and is occasionally channelized but discontinuous and inaccessible to CT. Contains no usable fish habitat anyway - channelized sections = 1cm deep and 0.3m wide.
	70728	1	122	2002/07/29	NA	31.0	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. Drainage is just a steep gully seepage/trickle down Pierre C. valley wall with no fish habitat/passage or potential. No overwintering u/s.
	70729	1	123	2002/07/29	NA	NS	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. Nothing to photograph.
	70730	1	124	2002/07/29	1.2	14.0	0.3	CT	S6	EF	150	364	L	8	30	C	700	80	6	Impassable 4.0m cascade falls at end of reach 0.1 d/s blocks all fish passage and marks upper extent of fish use. No fish present in watershed u/s from cascade. Seasonal, moderately steep creek with no permanent habitat, no overwintering u/s to support isolated population. Assume CT use below cascade. NFC below cascade as well.
	70732	1	126	2002/07/30	NA	15.0	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. Discontinuous channel and vegetated for 60m on 15% slope d/s from meadow, some scoured sections but is 80% vegetated by shrubs and saplings. Snowmelt runoff.
	70735	1	127	2002/07/30	0.9	7.3	0.1	CT	S6	NS			L							No fish habitat - seasonal and moderately steep stream with no instream cover when flowing during snowmelt runoff. Inferred CT use (S4) in R. 0.1 d/s.
	70736	1	128	2002/07/30	NA	4.0	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. Drains subalpine meadow, some short channelized sections within steeper (4%) gradient, otherwise seepage throughout.
	70737	1	129	2002/07/30	NA	NS	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. Seepage through subalpine meadow, no fluvium, no continuity.
	70738	1	130	2002/07/30	0.8	4.3	0.1	CT	S6	EF	2	23	L	5	30	C	700	80	6	No fish habitat - small, shallow, almost dry stream, no instream cover when flowing. Channel exposed, lacks any spawning, rearing or overwintering habitat.
	70739	1	131	2002/07/30	NA	NS	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. Discontinuous channel, drains wetland u/s. Steep (22%) drop to parent stream, inaccessible anyway.
	70740	1	132	2002/07/30	NA	NS	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. Seepage, drains subalpine meadow with discontinuous channel, no fluvium. Drainage accessible and usable for rearing for 50m from mouth then NCD from site.
	70741	1	133	2002/07/30	NA	NS	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish

Table 6: Summary of data from surveyed non-fish-bearing reaches in tributaries in the Pierre and Twain Sub-units

Watershed Code	ILP	Reach	Site	Date	Avg CW (m)	Avg Grad (%)	Avg Wb Depth (m)	Exp FPC Spp.	FPC Class	Method	EF Dist (m)	EF Time (s)	Flow Stage	Water Temp (C)	Conductivity (uS/cm)	Turbidity	Voltage (V)	Frequency (Hz)	Pulse Width (uS)	Comments
																				habitat or potential, no connectivity to u/s reaches. Just squishy meadow.
	70742	2	134	2002/07/30	1.1	4.7	0.1	CT	S6	EF	150	48	L	5	30	C	700	80	6	No fish habitat - shallow and intermittent stream, lacks instream cover when watered. No pools observed, just trickle between cobbles. Flows through shrubby corridor. Usable habitat present in reach 1.1 d/s (inferred CT presence).
	70743	1	135	2002/07/30	NA	NS	0.0	CT	NCD*	NS			NA							No stream/ drainage present at mapped location or within 100m radius.
	70746	3	138	2002/07/31	NA	NS	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. "Channel" is marginally accessible to site UTM (= R. 2.1), only 1 CT in reach below (R.2). At site, channel disperses in willow jail, occasionally reappearing, but totally dry. No continuity, no CT habitat anyway. When present, channel is cobbles/fines, organics, dry and moss covered.
	70747	2	140	2002/07/31	NA	NS	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. Channel/drainage ends at edge of meadow - no channel/water present u/s from site.
	70748	1	141	2002/07/31	NA	NS	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. To here will be R.0.1. "Channel" is marginally accessible to site (v. shallow crap) and only 1 CT in R.2 of parent. At site, channel disperses in willow jail and loses continuity.
	70750	3	142	2002/07/30	NA	6.0	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. Creek from R.4 through cobble rubble, mostly underground, entire reach vegetated and no continuous channel present, only some isolated channelized sections. Percolates through cobbles on willow vegetated slope.
	70751	2	143	2002/07/30	0.6	12.8	0.1	CT	S6	EF	100	18	L	6	30	C	700	80	6	No fish habitat - tiny, shallow and moderately steep stream with no instream cover when watered. At present, water percolates through cobbles. Flows over forested slope with some subsurface flow sections.
	70753	1	144	2002/07/31	NA	NS	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. Stream is only a willow shrub corridor with no channel present, no water, no fish habitat.
	70754	1	145	2002/07/31	NA	NS	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. Drainage is just very local bank runoff, no fluvium, no water, no channel bed present.
	70756	1	146	2002/07/31	NA	NS	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. Reach 1 from site is dispersed with no fluvium or continuous channel bed and is not an FPC stream. 1st 100m of mapped "stream" is actually a lake back channel. From 100m to site (R 0.1), channel is dry mossy cobbles through meadow and has potentially accessible, although marginal, habitat at higher flow.

Table 6: Summary of data from surveyed non-fish-bearing reaches in tributaries in the Pierre and Twain Sub-units

Watershed Code	ILP	Reach	Site	Date	Avg CW (m)	Avg Grad (%)	Avg Wb Depth (m)	Exp FPC Spp.	FPC Class	Method	EF Dist (m)	EF Time (s)	Flow Stage	Water Temp (C)	Conductivity (uS/cm)	Turbidity	Voltage (V)	Frequency (Hz)	Pulse Width (uS)	Comments
	70757	1	147	2002/07/30	NA	NS	0.0	CT	NCD*	NS			NA							No stream/ drainage present at mapped location or within 100m radius.
	70758	2	149	2002/07/31	NA	NS	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. At site channel becomes discontinuous with no fish habitat or potential, no passage u/s. Ribbon "1+230 North,1+125 E". site = junction with 70759. Note - shocked to here with NFC but infer CT present as habitat suitable and accessible to site (= R.1.1). NCD from here, (S3) to here.
	70759	1	150	2002/07/31	NA	19.5	0.0	CT	NCD	NS			NA							Not an FPC stream at site location - lacks continuous channel bed. No fish habitat or potential, no connectivity to u/s reaches. Ribbon - "T = 1+300N, 1+155E, stream at 155E". Stream lacks continuity - channel occasionally present but not continuous, not passable, no fish habitat anyway (dry). 20% at mouth too.
480-816400-06800		2.1	153	2002/07/04	1.6	14.0	0.3	RB	S6	EF	200	313	M	9	80	C	600	80	6	Impassable 2.0m cascade falls at beginning of reach blocks all fish passage and marks upper extent of fish use. No fish present in watershed u/s from cascade. Followed by 60m long bedrock cascade at 14% gradient. 2nd sampling NFC above cascade to confirm fish absence. Observed natural spring d/s from cascade which contributes significant flow to the stream and may explain RB presence in lower section - no RB captured u/s from spring either.
480-816400-06800-04500		1	154	2002/07/04	1.4	5.5	0.2	RB	S6	EF	100	39	M	8	110	C	600	80	6	Seasonal, shallow creek, already dry now when others at mod-hi flow stage. Rages in spring with no apparent instream cover to provide fish habitat. Only 1 shallow pool present in site, but not usable for fish. Sampled u/s NFC in 1999. No overwintering habitat present and no lakes u/s.

4.4.3 Follow-up Sampling Required

No follow-up sampling within sampled streams has been recommended for this project. All upper extents of confirmed or inferred fish use have been identified.

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6. List of Appendices

Appendix I: **FDIS Reach/Site Summaries**

Appendix II: **Photographs**

Appendix III: **Hardcopy Maps**

Reconnaissance (1:20,000) Fish and Fish Habitat Inventory

Resampling in the Pierre and Twain Sub-units 2002/03

Addendum to Pierre and Twain Sub-units Fish Inventory - 1999

• Appendix I: FDIS Reach/Site Summaries

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93K.061	61702

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93K.061 **ILP #:** 61702

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 10.311569.6060476 **Sample Type:** Biased

Length (km): .44 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 15.0 **Confinement:** Confined **Order:** 1 **Open water:**

US Elev (m): 779 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 1 Field UTM 10.311899.6060759 Agency: C016 Crew: MJ/SR Date: 2002/08/15

Site Length (m): 100 GIS UTM 10.311908.6060715 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Temp (C): pH: Conductivity:

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: D (cm):

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Roll# 15, Frame# 3, CD# 4, Image#325, Direction: Upstream, Scale/Comment:cam bag
Roll# 15, Frame# 4, CD# 4, Image#326, Direction: Downstream, Scale/Comment:MJ
site=UTM. Other - No fish habitat-steep dip in slope (~18%) - signs of snowmelt surface runoff only, no scour, no channel not a stream. All vegetated by Devil's club and mixed forest.

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93K.061	61705

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93K.061 **ILP #:** 61705

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 10.313165.6059104 **Sample Type:** Biased
Length (km): .43 **Coupling:** **Magnitude:** **BGC Zone:**
Gradient (%): 1.4 **Confinement:** Occasionally Con **Order:** 2 **Open water:**
US Elev (m): 724 **Islands:** **Riparian Vegetation:**
Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 2 Field UTM 10.313238.6059116 Agency: C016 Crew: MJ/SR Date: 2002/08/15
Site Length (m): 70 GIS UTM 10.313232.6059094 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☑
Dewatered: ☐ Tribs.: ☐
Stage: Low ☑ Med ☐ High ☐
Temp (C): pH: Conductivity:

	Avg	Min	Max	#
Channel Width (m):	1.18	0.9	1.700	6
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	2.00	1	3	3
Pool Depth (m):	0.00	0	0	0

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

MORPHOLOGY

Bed Material: Dominant: Fines D95 (cm): 0.10 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐
Subdominant: Not Applicable D (cm): 0.10 Braid ☐
Channel Pattern: Irregular, Wandering Islands: None
Coupling: Decoupled
Confinement: Unconfined
Morphology: LC Large Channel

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover: None
LWD: None
LWD Dist: Not Applicable

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	N	N	N	N	N	N	N
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Sloping (g Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure
Left Bank: Shape: Sloping (g Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ 71-90%
Right Bank: Rip.Veg: Shrubs Stage: Not Applicable
Left Bank: Rip.Veg: Stage: Not Applicable Instream Veg: None ☑ Algae ☐ Moss ☐ Vascular ☐

FEATURES

NID Map	NID	Type	Hgt	Method	Lg	Method	Photo				UTM (Z/E/N)	Method
093K.061	30021	BMA		AL		GE	R:		F:		10.313530.6059008	GIS

Comments: Almost entire reach is Kew Creek

Roll# 15, Frame# 7, CD# 4, Image#329, Direction: Upstream, Scale/Comment:Cam bag
Roll# 15, Frame# 8, CD# 4, Image#330, Direction: Downstream, Scale/Comment:Cam bag
site=UTM=mouth. Almost all reach is a Kew C. mainstem and only 70m is in R1. Other - No fish habitat - seasonal creek with v. poor instream cover when watered, mainly overstream vegetation and sticks, watered likely for v. short time in spring and maybe early summer. Rearing Habitat - no potential for fish - not preferable habitat, fairly fast flow and lacks pools (when watered)

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
2.0	93K.061	61705

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93K.061 **ILP #:** 61705

REACH

Reach #: 2.0 **UTM(Zone/East/North):** 10.312709.6059339 **Sample Type:** Biased
Length (km): .53 **Coupling:** **Magnitude:** **BGC Zone:**
Gradient (%): 2.3 **Confinement:** Frequently Confin **Order:** 2 **Open water:**
US Elev (m): 736 **Islands:** **Riparian Vegetation:**
Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 3 Field UTM 10.313002.6059175 Agency: C016 Crew: MJ/SR Date: 2002/08/15
Site Length (m): 150 GIS UTM 10.313002.6059172 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☑
Dewatered: ☐ Tribs.: ☐
Stage: Low ☑ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.78	0.5	1.200	6
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.10	0.1	0.1	3

	Avg	Min	Max	#
Gradient %:	3.25	3	4	4
Pool Depth (m):	0.00	0	0	0

Temp (C): pH: Conductivity: Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

MORPHOLOGY

Bed Material: Dominant: Fines D95 (cm): 10.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐
Subdominant: Cobble D (cm): 0.10 Braid ☐

Channel Pattern: Sinuous Islands: None
Coupling: Decoupled
Confinement: Occasionally Confine
Morphology: RP Riffle Pool

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover: None
LWD: None
LWD Dist: Not Applicable

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	N	N	N	N	N	N	N
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Sloping (g Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure
Left Bank: Shape: V - shape Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ 71-90%
Right Bank: Rip.Veg: Shrubs Stage: Not Applicable
Left Bank: Rip.Veg: Stage: Not Applicable Instream Veg: None ☑ Algae ☐ Moss ☐ Vascular ☐

Roll# 15, Frame# 5, CD# 4, Image#327, Direction: Upstream, Scale/Comment:cam bag
Roll# 15, Frame# 6, CD# 4, Image#328, Direction: Downstream, Scale/Comment:cam bag
flows through small swale within old cutblock. site = UTM. Other - No fish habitat - small, shallow and seasonal stream, watered only during runoff or heavy rain, lacks sufficient habitat to support seasonal rearing for CO, no deep pools or good instream cover, some deeply scoured sections of channel.

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach # ILP Map # ILP #

Watershed Code: 480-793000-13100-00000-0000-0000-000-000-000-000-000-000 4.0

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 480-793000-13100-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** **ILP #:**

REACH

Reach #: 4.0 **UTM(Zone/East/North):** 10.312077.6058231 **Sample Type:** Biased

Length (km): .26 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 4.2 **Confinement:** Occasionally Con **Order:** 2 **Open water:**

US Elev (m): 806 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 4 Field UTM 10.312237.6058238 Agency: C016 Crew: MJ/SR Date: 2002/08/15

Site Length (m): 100 GIS UTM 10.312235.6058229 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

Temp (C): pH: Conductivity:

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: D (cm):

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS: O1 ☐ B1 ☐ B2 ☐ B3 ☐ D1 ☐ D2 ☐ D3 ☐

C1 ☐ C2 ☐ C3 ☐ C4 ☐ C5 ☐ S1 ☐ S2 ☐ S3 ☐ S4 ☐ S5 ☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Roll# 15, Frame# 13, CD# 4, Image#335, Direction: Bed, Scale/Comment:cam bag
Roll# 15, Frame# 14, CD# 4, Image#336, Direction: Downstream, Scale/Comment:cam bag
site = UTM. Other - No fish habitat - NCD - seepage - channel dissipate into flats, no continuity to u/s reaches, habitable to here

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach # ILP Map # ILP #

Watershed Code: 480-793000-13100-30021-0000-0000-000-000-000-000-000-000 1.0

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 480-793000-13100-30021-0000-0000-000-000-000-000-000-000 **ILP Map #:** **ILP #:**

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 10.312862.6058019 **Sample Type:** Biased

Length (km): .35 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 5.7 **Confinement:** Frequently Confin **Order:** 2 **Open water:**

US Elev (m): 782 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 5 Field UTM 10.312733.6058328 Agency: C016 Crew: MJ/SR Date: 2002/08/15

Site Length (m): 100 GIS UTM 10.312732.6058309 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☑

Dewatered: ☐ Tribs.: ☐

Stage: Low ☑ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.87	0.7	1.100	6
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.17	0.1	0.2	3

	Avg	Min	Max	#
Gradient %:	6.50	5	8	4
Pool Depth (m):	0.00	0	0	0

Temp (C): pH: Conductivity:

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

MORPHOLOGY

Bed Material: Dominant: Fines D95 (cm): 15.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐

Subdominant: Cobble D (cm): 4.00 Braid ☐

Channel Pattern: Sinuous Islands: None

Coupling: Partially Coupled

Confinement: Frequently Confined

Morphology: CP Cascade Pool

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover: None

LWD: Few

LWD Dist: Evenly Distributed

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	N	N	N	N	N	N	N
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: V - shape Texture: Fines ☑ Gravel ☐ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: V - shape Texture: Fines ☑ Gravel ☐ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ 41-70%

Right Bank: Rip.Veg: Deciduous Stage: Pole-sapling stage

Left Bank: Rip.Veg: Stage: Pole-sapling stage Instream Veg: None ☐ Algae ☐ Moss ☑ Vascular ☐

Roll# 15, Frame# 9, CD# 4, Image#331, Direction: Upstream, Scale/Comment:boot
Roll# 15, Frame# 10, CD# 4, Image#332, Direction: Downstream, Scale/Comment:cam bag
site = UTM = mouth. flows through small gully vegetated by alder. Other - No fish habitat - small and seasonal stream, watered only during spring runoff and early summer, fast when flowing with almost no instream cover, no habitat for fish.

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93K.061	61713

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93K.061 **ILP #:** 61713

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 10.311643.6057243 **Sample Type:** Biased

Length (km): 1.42 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 11.3 **Confinement:** Confined **Order:** 1 **Open water:**

US Elev (m): 952 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 6 Field UTM 10.312367.6058153 Agency: C016 Crew: MJ/SR Date: 2002/08/15

Site Length (m): 100 GIS UTM 10.312373.6058142 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☑

Dewatered: ☐ Tribs.: ☐

Stage: Low ☑ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.62	0.400	0.800	6
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.20	0.2	0.2	3

	Avg	Min	Max	#
Gradient %:	7.75	7	8	4
Pool Depth (m):	0.00	0	0	0

Temp (C): pH: Conductivity:

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

MORPHOLOGY

Bed Material: Dominant: Cobble D95 (cm): 12.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: Gravels D (cm): 5.00

Channel Pattern: Sinuous Islands: None

Coupling: Coupled

Confinement: Confined

Morphology: CP Cascade Pool

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

	C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
	☐	☑	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover: None

LWD: None

LWD Dist: Not Applicable

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	N	N	N	N	N	N	N
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: V - shape Texture: Fines ☑ Gravel ☑ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: V - shape Texture: Fines ☑ Gravel ☑ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ 21-40%

Right Bank: Rip.Veg: Coniferous Stage: Pole-sapling stage

Left Bank: Rip.Veg: Stage: Pole-sapling stage Instream Veg: None ☑ Algae ☐ Moss ☐ Vascular ☐

Roll# 15, Frame# 11, CD# 4, Image#333, Direction: Upstream, Scale/Comment:cam bag
Roll# 15, Frame# 12, CD# 4, Image#334, Direction: Downstream, Scale/Comment:boot
flows through gully in a cutblock. site = UTM. Other - No fish habitat - small, seasonal and moderately steep stream, flowing only during spring runoff, no instream cover when watered, no pools observed, no fish in parent stream in R2 and R3.

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93K.061	61716

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93K.061 **ILP #:** 61716

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 10.312420.6058454 **Sample Type:** Biased
Length (km): .50 **Coupling:** **Magnitude:** **BGC Zone:**
Gradient (%): 5.4 **Confinement:** Occasionally Con **Order:** 2 **Open water:**
US Elev (m): 766 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 7 Field UTM 10.312759.6058736 Agency: C016 Crew: MJ/SR Date: 2002/08/15
Site Length (m): 300 GIS UTM 10.312777.6058750 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐
Dewatered: ☐ Tribs.: ☐
Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

Temp (C): pH: Conductivity:

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐
Subdominant: D (cm):

Channel Pattern: Islands:
Coupling:
Confinement:
Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:
LWD:
LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure
Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐
Right Bank: Rip.Veg: Stage:
Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

no drainage present at mapped location or 100m radius. site = UTM = "mouth"

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93K.061	61725

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93K.061 **ILP #:** 61725

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 10.314513.6058112 **Sample Type:** Biased

Length (km): .55 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 6.4 **Confinement:** Frequently Confin **Order:** 1 **Open water:**

US Elev (m): 748 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 8 Field UTM 10.314888.6058442 Agency: C016 Crew: SR/MJ Date: 2002/08/16

Site Length (m): 100 GIS UTM 10.314878.6058425 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

Temp (C): pH: Conductivity:

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: D (cm):

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

no drainage/channel present within 100m, obviously, no fish habitat or potential!. site = "mouth". Other - none

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach # ILP Map # ILP #

Watershed Code: 480-802100-00000-00000-0000-0000-000-000-000-000-000-000 16.0

STREAM REFERENCING

Gazetted Name: PIERRE CREEK **Local Name:**

Watershed Code: 480-802100-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** **ILP #:**

REACH

Reach #: 16.0 **UTM(Zone/East/North):** 9.690873.6053970 **Sample Type:** Biased

Length (km): .70 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 2.1 **Confinement:** Unconfined **Order:** 5 **Open water:**

US Elev (m): 1212 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 9 Field UTM 9.691114.6053797 Agency: C016 Crew: MJ/SR Date: 2002/07/09

Site Length (m): 100 GIS UTM 10.303505.6054025 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☑ High ☐

	Avg	Min	Max	#
Channel Width (m):	9.63	6.800	12.60	6
Wetted Width (m):	7.22	5.400	8.7	6
Bankfull Depth (m):	0.77	0.6	1	3

	Avg	Min	Max	#
Gradient %:	2.50	2	4	4
Pool Depth (m):	0.62	0.38	0.83	5

Temp (C): 11 pH: 7.6 Conductivity: 20

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Gravels D95 (cm): 18.00 Bars: Non ☐ Side ☑ Diagonal ☑ Mid-channel ☐ Span ☐

Subdominant: Cobble D (cm): 12.00 Braid ☐

Channel Pattern: Irregular, Wandering Islands: Irregular

Coupling: Decoupled

Confinement: Unconfined

Morphology: RP Riffle Pool

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☑	☑	☐	☐	☑	☐

	C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
	☐	☐	☐	☑	☐	☐	☐	☐	☐	☐

COVER

Total Cover: Abundant

LWD: Few

LWD Dist: Clumped

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	S	T	T	D	T	N
Location: P/S/O:	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐

FSZ: ☐

Right Bank: Shape: Sloping (g Texture: Fines ☑ Gravel ☑ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: V - shape Texture: Fines ☑ Gravel ☑ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ 1-20%

Right Bank: Rip.Veg: Coniferous Stage: Mature forest

Left Bank: Rip.Veg: Stage: Mature forest Instream Veg: None ☑ Algae ☐ Moss ☐ Vascular ☐

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
9	EF	1	20	48 sec	800	CT	2	43	68

Roll# 3, Frame# 20, CD# 1, Image#56, Direction: Downstream, Scale/Comment:SR
Roll# 3, Frame# 21, CD# 1, Image#57, Direction: Upstream, Scale/Comment:SR
site = UTM. Rearing Habitat - excellent - many LWD and pools with occasional cutbanks. Spawning Habitat - excellent - extensive small size gravel throughout and abundant holding areas. Overwintering Habitat - excellent, large and deep pools v. common

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach # ILP Map # ILP #

Watershed Code: 480-802100-00000-00000-0000-0000-000-000-000-000-000-000 17.0

STREAM REFERENCING

Gazetted Name: PIERRE CREEK **Local Name:**

Watershed Code: 480-802100-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** **ILP #:**

REACH

Reach #: 17.0 **UTM(Zone/East/North):** 9.687846.6054830 **Sample Type:** Biased
Length (km): 3.86 **Coupling:** **Magnitude:** **BGC Zone:**
Gradient (%): 2.0 **Confinement:** Occasionally Con **Order:** 4 **Open water:**
US Elev (m): 1290 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 10 Field UTM 9.690584.6054310 Agency: C016 Crew: SR/MJ Date: 2002/07/23
Site Length (m): 140 GIS UTM 10.303032.6054570 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐
Dewatered: ☐ Tribs.: ☐
Stage: Low ☑ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	4.74	4.1	5.2	5
Wetted Width (m):	4.62	4	5	5
Bankfull Depth (m):	0.50	0.4	0.6	3

	Avg	Min	Max	#
Gradient %:	1.50	1	2	4
Pool Depth (m):	0.55	0.460	0.680	4

Temp (C): 9 pH: 8.3 Conductivity: 30
Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Cobble D95 (cm): 25.00 Bars: Non ☐ Side ☑ Diagonal ☐ Mid-channel ☑ Span ☐ Braid ☐
Subdominant: Gravels D (cm): 12.00

Channel Pattern: Irregular, Wandering Islands: Occasiona
Coupling: Decoupled
Confinement: Unconfined
Morphology: RP Riffle Pool

DISTURBANCE INDICATORS: O1 ☐ B1 ☐ B2 ☐ B3 ☐ D1 ☐ D2 ☐ D3 ☐

C1 ☐ C2 ☐ C3 ☐ C4 ☐ C5 ☐ S1 ☐ S2 ☐ S3 ☐ S4 ☐ S5 ☐

COVER

Total Cover: Moderate
LWD: Few
LWD Dist: Evenly Distributed

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	T	S	T	D	T	N
Location: P/S/O:	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: V - shape Texture: Fines ☑ Gravel ☑ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure
Left Bank: Shape: Sloping (g Texture: Fines ☑ Gravel ☑ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ 1-20%
Right Bank: Rip.Veg: Shrubs Stage: Not Applicable
Left Bank: Rip.Veg: Stage: Not Applicable Instream Veg: None ☑ Algae ☐ Moss ☐ Vascular ☐

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
10	EF	1	140	84 sec	700	CT	9	48	136

Roll# 5, Frame# 17, CD# 1, Image#88, Direction: Upstream, Scale/Comment:SR
Roll# 5, Frame# 18, CD# 1, Image#89, Direction: Downstream, Scale/Comment:dog
channel width average - occasionally v. wide sections fro scour, not representative!. observed lots of CT as well, nice productive creek. did site to document change from S2-S3 - almost still S2... close. site = UTM. Rearing Habitat - excellent in abundant v. deep cobble/cascade pools. Spawning Habitat - good to excellent. Overwintering Habitat - excellent

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach # ILP Map # ILP #

Watershed Code: 480-802100-00000-00000-0000-0000-000-000-000-000-000-000 23.0

STREAM REFERENCING

Gazetted Name: PIERRE CREEK **Local Name:**

Watershed Code: 480-802100-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** **ILP #:**

REACH

Reach #: 23.0 **UTM(Zone/East/North):** 9.683924.6057477 **Sample Type:** Biased

Length (km): .38 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 4.0 **Confinement:** Occasionally Con **Order:** 2 **Open water:**

US Elev (m): 1436 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 11 Field UTM 9.683918.6057164 Agency: C016 Crew: SR/MJ Date: 2002/07/30

Site Length (m): 100 GIS UTM 10.296613.6057999 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☑ High ☐

	Avg	Min	Max	#
Channel Width (m):	1.22	0.9	1.600	6
Wetted Width (m):	1.15	0.9	1.5	6
Bankfull Depth (m):	0.27	0.2	0.3	3

	Avg	Min	Max	#
Gradient %:	1.25	0	2	4
Pool Depth (m):	0.19	0.11	0.24	3

Temp (C): 8 pH: 8.4 Conductivity: 40

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Gravels D95 (cm): 15.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐

Subdominant: Cobble D (cm): 2.00 Braid ☐

Channel Pattern: Sinuous Islands: None

Coupling: Decoupled

Confinement: Occasionally Confine

Morphology: RP Riffle Pool

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover: Abundant

LWD: None

LWD Dist: Not Applicable

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	N	T	T	D	S	N
Location: P/S/O:	☑☐☐	☐☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: V - shape Texture: Fines ☑ Gravel ☑ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: V - shape Texture: Fines ☑ Gravel ☑ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ 21-40%

Right Bank: Rip.Veg: Shrubs Stage: Not Applicable

Left Bank: Rip.Veg: Stage: Not Applicable Instream Veg: None ☑ Algae ☐ Moss ☐ Vascular ☐

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
11	EF	1	100	77 sec	700	NFC	0		

Roll# 11, Frame# 13, CD# 3, Image#234, Direction: Upstream, Scale/Comment:cam bag
site = mouth @ lake - see photo. Rearing Habitat - fairly shallow although good cover provide good habitat. Spawning Habitat - fair - some usable gravels present. Overwintering Habitat - none - too shallow - move to lake

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach # ILP Map # ILP #

Watershed Code: 480-802100-03500-00000-0000-0000-000-000-000-000-000-000 2.0

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 480-802100-03500-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** **ILP #:**

REACH

Reach #: 2.0 **UTM(Zone/East/North):** 10.314100.6057339 **Sample Type:** Biased

Length (km): 1.02 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 2.7 **Confinement:** Occasionally Con **Order:** 2 **Open water:**

US Elev (m): 762 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 12 Field UTM 10.314970.6057565 Agency: C016 Crew: SR/MJ Date: 2002/08/16

Site Length (m): 100 GIS UTM 10.314968.6057558 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☑

Dewatered: ☐ Tribs.: ☐

Stage: Low ☑ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.63	0.300	0.9	6
Wetted Width (m):	0.12	0	0.600	6
Bankfull Depth (m):	0.23	0.2	0.3	3

	Avg	Min	Max	#
Gradient %:	2.75	2	3	4
Pool Depth (m):	0.03	0.03	0.04	2

Temp (C): 10 pH: 8.4 Conductivity: 160

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Fines D95 (cm): 4.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: Cobble D (cm): 0.10

Channel Pattern: Sinuous Islands: None

Coupling: Decoupled

Confinement: Occasionally Confine

Morphology: RP Riffle Pool

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover: Trace

LWD: Few

LWD Dist: Evenly Distributed

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	N	N	N	N	D	S	N
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☑☐☐	☑☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: V - shape Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Sloping (g Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ 41-70%

Right Bank: Rip.Veg: Mixed C/D Stage: Mature forest

Left Bank: Rip.Veg: Stage: Mature forest Instream Veg: None ☑ Algae ☐ Moss ☐ Vascular ☐

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
12	EF	1	100	37 sec	500	NFC	0		

Roll# 15, Frame# 15, CD# 4, Image#337, Direction: Upstream, Scale/Comment:cam bag
Roll# 15, Frame# 16, CD# 4, Image#338, Direction: Downstream, Scale/Comment:cam bag
Roll# 15, Frame# 17, CD# 4, Image#339, Direction: Downstream, Scale/Comment:fish photo - in Pierre C. at mouth hundreds of SK* in Pierre C.!. almost all fines (98%) - only couple cobbles. sampled NFC in 1999 too. site = UTM = lower boundary. only cover is in the only 2 shallow stagnant pools, poor quality. R1 may be used as refuge, but habitat there is marginal. Not a fish. Overwintering Habitat - none. Other - none - only 2 pools, not good/deep enough for fish to reside. Rearing Habitat - poor - no flow, all fines. Spawning Habitat - none

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93K.061	61729

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93K.061 **ILP #:** 61729

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 10.313651.6055488 **Sample Type:** Biased

Length (km): .08 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 32.5 **Confinement:** Entrenched **Order:** 2 **Open water:**

US Elev (m): 871 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 13 Field UTM 10.313760.6055486 Agency: C016 Crew: SR/MJ Date: 2002/07/06

Site Length (m): 100 GIS UTM 10.313717.6055511 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

Temp (C): pH: Conductivity:

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐

Subdominant: D (cm): Braid ☐

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

site = UTM = "mouth". trib is also NCD*. mapped "stream" is totally dry gully with no evidence of channel, scour or water, also drops 40m into Pierre C. canyon at "mouth". Other - none - no water, no channel

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach # 1.0 | ILP Map # | ILP #

Watershed Code: 480-802100-16400-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: | **Local Name:**

Watershed Code: 480-802100-16400-00000-0000-0000-000-000-000-000-000-000 | **ILP Map #:** | **ILP #:**

REACH

Reach #: 1.0 | **UTM(Zone/East/North):** 10.312893.6055412 | **Sample Type:** Biased

Length (km): .55 | **Coupling:** | **Magnitude:** | **BGC Zone:**

Gradient (%): 3.5 | **Confinement:** Frequently Confin | **Order:** 3 | **Open water:**

US Elev (m): 898 | **Islands:** | **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 14 | Field UTM 10.313302.6055586 | Agency: C016 | Crew: SR/MJ | Date: 2002/07/06

Site Length (m): 300 | GIS UTM 10.313300.6055582 | Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☑ High ☐

	Avg	Min	Max	#
Channel Width (m):	4.35	3.700	4.800	6
Wetted Width (m):	3.15	1.9	4.800	6
Bankfull Depth (m):	0.37	0.3	0.4	3

	Avg	Min	Max	#
Gradient %:	2.75	2	4	4
Pool Depth (m):	0.27	0.22	0.310	4

Temp (C): 7 | pH: 7.9 | Conductivity: 40

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Cobble | Subdominant: Gravels | D95 (cm): 35.00 | D (cm): 9.00

Bars: Non ☐ Side ☑ Diagonal ☐ Mid-channel ☑ Span ☐ Braid ☐

Channel Pattern: Sinuous | Coupling: Partially Coupled | Confinement: Frequently Confined | Morphology: CP Cascade Pool | Islands: None

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

	C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover: Moderate | LWD: Few | LWD Dist: Clumped

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	T	S	T	D	T	N
Location: P/S/O:	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: V - shape | Texture: Fines ☑ Gravel ☐ Cobble ☑ Boulder ☑ Rock ☐ Manmade ☐ | Crown Closure

Left Bank: Shape: V - shape | Texture: Fines ☑ Gravel ☐ Cobble ☑ Boulder ☑ Rock ☐ Manmade ☐ | 21-40%

Right Bank: Rip.Veg: Coniferous | Stage: Mature forest

Left Bank: Rip.Veg: | Stage: Mature forest | Instream Veg: None ☑ Algae ☐ Moss ☐ Vascular ☐

FEATURES

NID Map	NID	Type	Hgt	Method	Lg	Method	Photo		UTM (Z/E/N)	Method
93K.061	30141	F	4.0	GE		GE	R:	F:	10.312876.6055397	GIS

Comments: impassable to fish - located 50m u/s from utm

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
14	EF	1	300	564 sec	600	CT	3	171	184

Roll# 1, Frame# 14, CD# 1, Image#6, Direction: Upstream, Scale/Comment:MJ - note LWD clump
Roll# 1, Frame# 15, CD# 1, Image#7, Direction: Downstream, Scale/Comment:cam bag
upper site UTM 10.313048.6055437. stream similar in size to Pierre at this junction. major flow contributor to Pierre. site = mouth. few gravel pockets, boulders mixed. Overwintering Habitat - fair-moderate - good flow, but pools may not be deep enough. Other - confirmed CT use, access to falls at end of R.2. Spawning Habitat - fair - mainly cobble/boulder/large gravel, but few isolated pockets suitable. Rearing Habitat - good-excellent in abundant boulder/pool cover, but CT v. sparse

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93K.061	61731

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93K.061 **ILP #:** 61731

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 10.312889.6055035 **Sample Type:** Biased

Length (km): .51 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 13.5 **Confinement:** Confined **Order:** 1 **Open water:**

US Elev (m): 960 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 15 Field UTM 10.313045.6055418 Agency: C016 Crew: SR/MJ Date: 2002/07/06

Site Length (m): 100 GIS UTM 10.313053.6055421 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

Temp (C): pH: Conductivity:

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐

Subdominant: D (cm): Braid ☐

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Roll# 1, Frame# 16, CD# 1, Image#8, Direction: Upstream, Scale/Comment:cam bag
"stream" is slight moist depression with no water, no fluvium, no channel bed - no fish habitat or access. site = "mouth". Other - none - no water, no channel

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93K.061	61734

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93K.061 **ILP #:** 61734

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 10.312744.6055666 **Sample Type:** Biased

Length (km): .41 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 3.9 **Confinement:** Occasionally Con **Order:** 1 **Open water:**

US Elev (m): 898 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 16 Field UTM 10.313080.6055717 Agency: C016 Crew: SR/MJ Date: 2002/07/06

Site Length (m): 100 GIS UTM 10.313080.6055717 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

Temp (C): pH: Conductivity:

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: D (cm):

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Roll# 1, Frame# 17, CD# 1, Image#9, Direction: Upstream, Scale/Comment:cam bags
site = UTM. not a stream - isolated organic moss puddles in forest - no bed, fluvium, flow or habitat. Other - none

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93K.061	61735

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000-000 **ILP Map #:** 93K.061 **ILP #:** 61735

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 10.312443.6055885 **Sample Type:** Biased

Length (km): .63 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 2.9 **Confinement:** Occasionally Con **Order:** 2 **Open water:**

US Elev (m): 905 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 17 Field UTM 10.312991.6055835 Agency: C016 Crew: SR/MJ Date: 2002/07/06

Site Length (m): 300 GIS UTM 10.313004.6055818 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☑ High ☐

	Avg	Min	Max	#
Channel Width (m):	1.37	0.9	1.8	6
Wetted Width (m):	1.37	0.9	1.8	6
Bankfull Depth (m):	0.23	0.2	0.3	3

	Avg	Min	Max	#
Gradient %:	1.50	1	2	4
Pool Depth (m):	0.27	0.22	0.310	4

Temp (C): 6 pH: 8.0 Conductivity: 50

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Fines D95 (cm): 8.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐

Subdominant: Gravels D (cm): 4.00 Braid ☐

Channel Pattern: Sinuous Islands: Occasiona

Coupling: Decoupled

Confinement: Occasionally Confine

Morphology: RP Riffle Pool

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☑	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover: Abundant

LWD: Few

LWD Dist: Evenly Distributed

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	S	N	S	D	T	N
Location: P/S/O:	☑☐☐	☑☐☐	☐☐☐	☑☐☐	☑☐☐	☑☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Undercut Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: V - shape Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ 41-70%

Right Bank: Rip.Veg: Coniferous Stage: Mature forest

Left Bank: Rip.Veg: Stage: Mature forest Instream Veg: None ☑ Algae ☐ Moss ☐ Vascular ☐

FEATURES

NID Map	NID	Type	Hgt	Method	Lg	Method	Photo	UTM (Z/E/N)	Method
093K.061	30172	C	5.0	AL	18	GE	R: F:	10.312473.6055863	GIS

Comments: already documented, confirmed UTM

NID Map	NID	Type	Hgt	Method	Lg	Method	Photo	UTM (Z/E/N)	Method
093K.061	30171	BD	.5	AL	20	GE	R: 1 F: 20	10.312686.6055854	GIS

Comments: hinders passage, decreases habitat value

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
17	EF	1	300	417 sec	600	NFC	0		

Roll# 1, Frame# 18, CD# 1, Image#10, Direction: Upstream, Scale/Comment:MJ. Roll# 1, Frame# 19, CD# 1, Image#11, Direction: Downstream, Scale/Comment:cam bag. Roll# 1, Frame# 20, CD# 1, Image#12, Direction: Upstream, Scale/Comment:cam bag - BD in features. has to be S4 - CT use very low or none, but easily possible. site = mouth. walked from mouth - pretty nice habitat, likely permanent, easily accessible. historic cascade should be right at end of R1, below tributary. Rearing Habitat - good in abundant deep pools, but organics common. Overwintering Habitat - moderate - possible, but pools may lack depth. Spawning Habitat - moderate-good especially near mouth where more rounded gravels present.

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93K.061	61739

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93K.061 **ILP #:** 61739

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 10.311843.6056824 **Sample Type:** Biased

Length (km): .15 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 14.7 **Confinement:** Entrenched **Order:** 1 **Open water:**

US Elev (m): 950 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 18 Field UTM 10.311895.6056725 Agency: C016 Crew: SR/MJ Date: 2002/07/06

Site Length (m): 100 GIS UTM 10.311890.6056720 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

Temp (C): pH: Conductivity:

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐

Subdominant: D (cm): Braid ☐

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS: O1 ☐ B1 ☐ B2 ☐ B3 ☐ D1 ☐ D2 ☐ D3 ☐

C1 ☐ C2 ☐ C3 ☐ C4 ☐ C5 ☐ S1 ☐ S2 ☐ S3 ☐ S4 ☐ S5 ☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

site = "mouth". not a creek - Devil's Club fan, no channel, no fluvium - moist ground. Other - none - no channel, no connection to "lake" u/s

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93K.061	61740

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93K.061 **ILP #:** 61740

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 10.309558.6056035 **Sample Type:** Biased

Length (km): .11 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 11.8 **Confinement:** Confined **Order:** 2 **Open water:**

US Elev (m): 1055 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 19 Field UTM 10.309648.6055977 Agency: C016 Crew: MJ/SR Date: 2002/07/07

Site Length (m): 100 GIS UTM 10.309627.6055978 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

Temp (C): pH: Conductivity:

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐

Subdominant: D (cm): Braid ☐

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Roll# 1, Frame# 21, CD# 1, Image#13, Direction: Upstream, Scale/Comment:cam bag
Roll# 1, Frame# 22, CD# 1, Image#14, Direction: Downstream, Scale/Comment:MJ
NCD - no fluvium, no banks - seasonal runoff after snowmelt, descends over 40% embankment (10m) into Pierre C. from 6% slope bench. site = UTM. Other - No fish habitat

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93K.061	61742

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93K.061 **ILP #:** 61742

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 10.309212.6055523 **Sample Type:** Biased

Length (km): .14 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 18.6 **Confinement:** Entrenched **Order:** 2 **Open water:**

US Elev (m): 1083 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 20 Field UTM 10.309240.6055556 Agency: C016 Crew: MJ/SR Date: 2002/07/07

Site Length (m): 100 GIS UTM 10.309236.6055579 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

Temp (C): pH: Conductivity:

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐

Subdominant: D (cm): Braid ☐

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

no any kind of drainage present at mapped location or 100m radius. site = UTM = edge of 30m cliff at Pierre C. Other - No fish habitat

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach # ILP Map # ILP #

Watershed Code: 480-802100-42400-00000-0000-0000-000-000-000-000-000-000 1.0

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 480-802100-42400-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** **ILP #:**

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 10.308008.6055870 **Sample Type:** Biased

Length (km): .26 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 3.9 **Confinement:** Frequently Confin **Order:** 3 **Open water:**

US Elev (m): 1100 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 21 Field UTM 10.308263.6055841 Agency: C016 Crew: MJ/SR Date: 2002/07/07

Site Length (m): 200 GIS UTM 10.308254.6055827 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☑ High ☐

	Avg	Min	Max	#
Channel Width (m):	2.30	1.9	2.900	6
Wetted Width (m):	2.12	1.8	2.8	6
Bankfull Depth (m):	0.53	0.5	0.6	3

	Avg	Min	Max	#
Gradient %:	3.50	2	5	4
Pool Depth (m):	0.29	0.180	0.51	5

Temp (C): 7 pH: 7.4 Conductivity: 40

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Cobble D95 (cm): 400.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐

Subdominant: Boulders D (cm): 4.00 Braid ☐

Channel Pattern: Sinuous Islands: None

Coupling: Decoupled

Confinement: Occasionally Confine

Morphology: SP Step Pool

DISTURBANCE INDICATORS: O1 ☐ B1 ☐ B2 ☐ B3 ☐ D1 ☐ D2 ☐ D3 ☐

C1 ☐ C2 ☐ C3 ☐ C4 ☐ C5 ☐ S1 ☐ S2 ☐ S3 ☐ S4 ☐ S5 ☐

COVER

Total Cover: Abundant

LWD: Few

LWD Dist: Evenly Distributed

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	T	S	T	D	T	S
Location: P/S/O:	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐

FSZ: ☐

Right Bank: Shape: V - shape Texture: Fines ☑ Gravel ☐ Cobble ☑ Boulder ☑ Rock ☑ Manmade ☐ Crown Closure

Left Bank: Shape: V - shape Texture: Fines ☑ Gravel ☐ Cobble ☑ Boulder ☑ Rock ☑ Manmade ☐ 21-40%

Right Bank: Rip.Veg: Coniferous Stage: Mature forest

Left Bank: Rip.Veg: Stage: Mature forest Instream Veg: None ☐ Algae ☐ Moss ☑ Vascular ☐

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
21	EF	1	200	343 sec	700	CT	3	78	113

Roll# 2, Frame# 1, CD# 1, Image#15, Direction: Upstream, Scale/Comment:SR
Roll# 2, Frame# 2, CD# 1, Image#16, Direction: Downstream, Scale/Comment:SR
flows through 15-20m valley forested by spruce and firs. site = UTM = mouth. Rearing Habitat - excellent in abundant S/P and boulders supplemented by LWD. Overwintering Habitat - some deep pools available although scarce. Spawning Habitat - none - substrate angular and large

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach # 4.0 | ILP Map # | ILP #

Watershed Code: 480-802100-42400-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 480-802100-42400-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** **ILP #:**

REACH

Reach #: 4.0 **UTM(Zone/East/North):** 10.307247.6055981 **Sample Type:** Biased

Length (km): .21 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 2.9 **Confinement:** Frequently Confin **Order:** 3 **Open water:**

US Elev (m): 1126 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 22 Field UTM 10.307345.6056130 Agency: C016 Crew: MJ/SR Date: 2002/07/07

Site Length (m): 200 GIS UTM 10.307322.6056133 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☑ High ☐

	Avg	Min	Max	#
Channel Width (m):	2.45	2.3	2.700	6
Wetted Width (m):	2.45	2.3	2.700	6
Bankfull Depth (m):	0.40	0.4	0.4	3

	Avg	Min	Max	#
Gradient %:	2.75	2	3	4
Pool Depth (m):	0.51	0.42	0.670	3

Temp (C): 7 pH: 7.4 Conductivity: 40

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Gravels D95 (cm): 35.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐

Subdominant: Boulders D (cm): 3.00 Braid ☐

Channel Pattern: Sinuous Islands: None

Coupling: Coupled

Confinement: Frequently Confined

Morphology: RP Riffle Pool

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover: Abundant

LWD: Few

LWD Dist: Evenly Distributed

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	T	S	S	D	T	T
Location: P/S/O:	☑ ☐ ☐	☑ ☐ ☐	☑ ☐ ☐	☑ ☐ ☐	☑ ☐ ☐	☑ ☐ ☐	☑ ☐ ☐

FSZ: ☐

Right Bank: Shape: Undercut Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☑ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Undercut Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☑ Rock ☐ Manmade ☐ 1-20%

Right Bank: Rip.Veg: Coniferous Stage: Mature forest

Left Bank: Rip.Veg: Stage: Mature forest Instream Veg: None ☐ Algae ☐ Moss ☑ Vascular ☐

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
22	EF	1	200	87 sec	800	CT	5	43	68

Roll# 2, Frame# 7, CD# 1, Image#21, Direction: Bed, Scale/Comment:probe - excellent spawning substrate
Roll# 2, Frame# 8, CD# 1, Image#22, Direction: Downstream, Scale/Comment:cam bag
Roll# 2, Frame# 9, CD# 1, Image#23, Direction: Upstream, Scale/Comment:SR
more boulders in upper part of reach. site = UTM. Overwintering Habitat - good - deep pools present and are suitable. Rearing Habitat - excellent in abundant and diverse cover P/C/LWD type. Spawning Habitat - excellent in almost pure gravels, excellent holding in cutbanks and pools (4 redds observed) - particularly in lower 70m of reach

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach # ILP Map # ILP #

Watershed Code: 480-802100-42400-00000-0000-0000-000-000-000-000-000-000 4.1

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 480-802100-42400-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** **ILP #:**

REACH

Reach #: 4.1 **UTM(Zone/East/North):** 10.306414.6056176 **Sample Type:** Biased

Length (km): .91 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 1.4 **Confinement:** Frequently Confin **Order:** 3 **Open water:**

US Elev (m): 1139 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 23 Field UTM 10.306550.6056127 Agency: C016 Crew: SR/MJ Date: 2002/07/08

Site Length (m): 120 GIS UTM 10.306549.6056131 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☑ High ☐

	Avg	Min	Max	#
Channel Width (m):	1.97	1.600	2.200	6
Wetted Width (m):	1.97	1.600	2.200	6
Bankfull Depth (m):	0.37	0.3	0.4	3

	Avg	Min	Max	#
Gradient %:	2.00	1	3	4
Pool Depth (m):	0.47	0.38	0.560	4

Temp (C): 9 pH: 8.1 Conductivity: 30

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Gravels D95 (cm): 8.00 Bars: Non ☐ Side ☑ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: Cobble D (cm): 4.00

Channel Pattern: Sinuous Islands: None

Coupling: Partially Coupled

Confinement: Frequently Confined

Morphology: RP Riffle Pool

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover: Abundant

LWD: Few

LWD Dist: Evenly Distributed

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	S	T	T	D	T	N
Location: P/S/O:	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Sloping (g Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: V - shape Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ 21-40%

Right Bank: Rip.Veg: Coniferous Stage: Mature forest

Left Bank: Rip.Veg: Stage: Mature forest Instream Veg: None ☑ Algae ☐ Moss ☐ Vascular ☐

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
23	EF	1	120	382 sec	700	CT	2	54	61

Roll# 2, Frame# 21, CD# 1, Image#35, Direction: Upstream, Scale/Comment:MJ
Roll# 2, Frame# 22, CD# 1, Image#36, Direction: Downstream, Scale/Comment:cam bag
site extends to junction. likely use for CT spawning - nice creek, CT sparse still. site = UTM. Overwintering Habitat - good - v. deep pools, perennial flow. Rearing Habitat - good to excellent in abundant deep pools, LWD/SWD areas. Spawning Habitat - good - abundant uniform gravels, but much angular - sections

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach # ILP Map # ILP #

Watershed Code: 480-802100-42400-00000-0000-0000-000-000-000-000-000-000 5.0

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 480-802100-42400-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** **ILP #:**

REACH

Reach #: 5.0 **UTM(Zone/East/North):** 9.693609.6055958 **Sample Type:** Biased
Length (km): .30 **Coupling:** **Magnitude:** **BGC Zone:**
Gradient (%): 4.3 **Confinement:** Occasionally Con **Order:** 3 **Open water:**
US Elev (m): 1152 **Islands:** **Riparian Vegetation:**
Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 24 Field UTM 10.306388.6056171 Agency: C016 Crew: SR/MJ Date: 2002/07/08
Site Length (m): 200 GIS UTM 10.306413.6056170 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐
Dewatered: ☐ Tribs.: ☐
Stage: Low ☐ Med ☑ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.95	0.7	1.200	6
Wetted Width (m):	0.95	0.7	1.200	6
Bankfull Depth (m):	0.27	0.2	0.3	3

	Avg	Min	Max	#
Gradient %:	4.75	4	5	4
Pool Depth (m):	0.20	0.140	0.270	4

Temp (C): 10 pH: 7.8 Conductivity: 30
Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Cobble D95 (cm): 18.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐
Subdominant: Fines D (cm): 2.00 Braid ☐

Channel Pattern: Sinuous Islands: None
Coupling: Partially Coupled
Confinement: Occasionally Confine
Morphology: CP Cascade Pool

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☑	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover: Moderate

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	T	T	T	D	S	N
Location: P/S/O:	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☐☐☐

LWD: Few
LWD Dist: Evenly Distributed
FSZ: ☐

Right Bank: Shape: Sloping (g Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure
Left Bank: Shape: V - shape Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ 21-40%
Right Bank: Rip.Veg: Shrubs Stage: Not Applicable
Left Bank: Rip.Veg: Stage: Not Applicable Instream Veg: None ☐ Algae ☐ Moss ☑ Vascular ☐

FEATURES

NID Map	NID	Type	Hgt	Method	Lg	Method	Photo				UTM (Z/E/N)	Method
093L070	30241	C	5.0	AL	20	GE	R:	3	F:	3	9.693609.6055963	GIS

Comments: impassable gradient, small chutes - NFB above

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
24	EF	1	200	297 sec	700	CT	1	57	57

Roll# 2, Frame# 23, CD# 1, Image#37, Direction: Upstream, Scale/Comment:cam bag
Roll# 2, Frame# 24, CD# 1, Image#38, Direction: Downstream, Scale/Comment:cam bag - end of roll
Roll# 3, Frame# 3, CD# 1, Image#41, Direction: Upstream, Scale/Comment:cam bag - cascade in features
has occasional wide, pool/shrubby sections. flows into side channel of -54400. site = UTM = junction with -42400-54400. did site to document -54400 as mainstem, and FPC class change from S3 to S4. CT only caught at mouth. cascade at end of reach is EFU. old BD in gully, 100 m fro mouth. Spawning Habitat - none significant observed - no gravels. Rearing Habitat - moderate in few pools, but quite small and shallow. Overwintering Habitat - none - small, shallow, likely seasonal

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach # ILP Map # ILP #

Watershed Code: 480-802100-42400-00000-0000-0000-000-000-000-000-000-000 6.0

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 480-802100-42400-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** **ILP #:**

REACH

Reach #: 6.0 **UTM(Zone/East/North):** 9.693104.6055916 **Sample Type:** Biased

Length (km): .60 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 3.3 **Confinement:** Frequently Confin **Order:** 2 **Open water:**

US Elev (m): 1172 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 25 Field UTM 9.693570.6055967 Agency: C016 Crew: SR/MJ Date: 2002/07/08

Site Length (m): 100 GIS UTM 10.306162.6055966 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☑ High ☐

	Avg	Min	Max	#
Channel Width (m):	1.30	0.7	1.8	6
Wetted Width (m):	2.35	1	7	6
Bankfull Depth (m):	0.17	0.1	0.2	3

	Avg	Min	Max	#
Gradient %:	2.75	0	5	4
Pool Depth (m):	0.16	0.08	0.280	5

Temp (C): 10 pH: 7.8 Conductivity: 30

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Fines D95 (cm): 15.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐

Subdominant: Cobble D (cm): 0.10 Braid ☐

Channel Pattern: Sinuous Islands: Occasiona

Coupling: Decoupled

Confinement: Occasionally Confine

Morphology: RP Riffle Pool

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☑	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover: Trace

LWD: Few

LWD Dist: Evenly Distributed

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	T	N	N	S	D	N
Location: P/S/O:	☑☐☐	☑☐☐	☐☐☐	☐☐☐	☑☐☐	☑☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: V - shape Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Sloping (g Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ 21-40%

Right Bank: Rip.Veg: Shrubs Stage: Not Applicable

Left Bank: Rip.Veg: Stage: Not Applicable Instream Veg: None ☐ Algae ☑ Moss ☐ Vascular ☐

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
25	EF	1	100	348 sec	700	NFC	0		

Roll# 3, Frame# 1, CD# 1, Image#39, Direction: Upstream, Scale/Comment:cam bag
Roll# 3, Frame# 2, CD# 1, Image#40, Direction: Downstream, Scale/Comment:cam bag
kind of marginal habitat anyway. sections of low gradient - BD areas and higher gradient sections. sampled from cascade to determine fish absence, NFC below anyway - marginal fish likelihood except near mouth. site = UTM. Rearing Habitat - fair - few pools may support rearing, but low value. Spawning Habitat - none. Overwintering Habitat - none, except BD ponds? Likely freezes solid. Other - all isolated above cascade at end of R.5

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach # 1.0 | ILP Map # | ILP #

Watershed Code: 480-802100-42400-09600-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 480-802100-42400-09600-0000-0000-000-000-000-000-000-000 **ILP Map #:** **ILP #:**

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 10.307739.6055869 **Sample Type:** Biased

Length (km): .16 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 3.1 **Confinement:** Occasionally Con **Order:** 2 **Open water:**

US Elev (m): 1110 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 26 Field UTM 10.307845.6055963 Agency: C016 Crew: MJ/SR Date: 2002/07/07

Site Length (m): 150 GIS UTM 10.307844.6055967 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☑ High ☐

	Avg	Min	Max	#
Channel Width (m):	1.55	1.3	1.8	6
Wetted Width (m):	1.48	1.3	1.600	6
Bankfull Depth (m):	0.33	0.3	0.4	3

	Avg	Min	Max	#
Gradient %:	1.25	1	2	4
Pool Depth (m):	0.19	0.13	0.270	3

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

Temp (C): 7 pH: 7.6 Conductivity: 40

MORPHOLOGY

Bed Material: Dominant: Cobble D95 (cm): 50.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: Fines D (cm): 1.00

Channel Pattern: Irregular, Wandering Islands: Occasiona

Coupling: Decoupled

Confinement: Unconfined

Morphology: RP Riffle Pool

DISTURBANCE INDICATORS: O1 ☐ B1 ☐ B2 ☐ B3 ☐ D1 ☐ D2 ☐ D3 ☐

C1 ☐ C2 ☐ C3 ☐ C4 ☐ C5 ☐ S1 ☐ S2 ☐ S3 ☐ S4 ☐ S5 ☐

COVER

Total Cover: Abundant

LWD: Few

LWD Dist: Evenly Distributed

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	T	S	D	S	T	N
Location: P/S/O:	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Undercut Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Left Bank: Shape: Undercut Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Crown Closure 41-70%

Right Bank: Rip.Veg: Shrubs Stage: Not Applicable

Left Bank: Rip.Veg: Stage: Not Applicable

Instream Veg: None ☐ Algae ☐ Moss ☑ Vascular ☐

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
26	EF	1	150	233 sec	700	NFC	0		

Roll# 2, Frame# 3, CD# 1, Image#17, Direction: Upstream, Scale/Comment:cam bag
Roll# 2, Frame# 4, CD# 1, Image#18, Direction: Downstream, Scale/Comment:cam bag
site = UTM = mouth. Rearing Habitat - good - abundant C/P/B cover. Spawning Habitat - none - substrate large mixed with fines and organics. Overwintering Habitat - none - too shallow - move to parent stream

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach # 2.0 | ILP Map # | ILP #

Watershed Code: 480-802100-42400-09600-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 480-802100-42400-09600-0000-0000-000-000-000-000-000-000 **ILP Map #:** **ILP #:**

REACH

Reach #: 2.0 **UTM(Zone/East/North):** 10.307482.6055561 **Sample Type:** Biased

Length (km): .46 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 4.8 **Confinement:** Confined **Order:** 2 **Open water:**

US Elev (m): 1132 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 27 Field UTM 10.307630.6055752 Agency: C016 Crew: MJ/SR Date: 2002/07/07

Site Length (m): 150 GIS UTM 10.307598.6055743 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☑ High ☐

	Avg	Min	Max	#
Channel Width (m):	1.42	1.200	1.600	6
Wetted Width (m):	1.32	1.200	1.5	6
Bankfull Depth (m):	0.23	0.2	0.3	3

	Avg	Min	Max	#
Gradient %:	5.75	4	8	4
Pool Depth (m):	0.18	0.12	0.24	5

Temp (C): 7 pH: 7.6 Conductivity: 40

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Cobble D95 (cm): 400.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: Fines D (cm): 6.00

Channel Pattern: Sinuous Islands: None

Coupling: Coupled

Confinement: Frequently Confined

Morphology: CP Cascade Pool

DISTURBANCE INDICATORS: O1 ☐ B1 ☐ B2 ☐ B3 ☐ D1 ☐ D2 ☐ D3 ☐

C1 ☐ C2 ☐ C3 ☐ C4 ☐ C5 ☐ S1 ☐ S2 ☐ S3 ☐ S4 ☐ S5 ☐

COVER

Total Cover: Moderate

LWD: Few

LWD Dist: Evenly Distributed

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	T	S	T	D	T	N
Location: P/S/O:	☑ ☐ ☐	☑ ☐ ☐	☑ ☐ ☐	☑ ☐ ☐	☑ ☐ ☐	☑ ☐ ☐	☐ ☐ ☐

FSZ: ☐

Right Bank: Shape: V - shape Texture: Fines ☑ Gravel ☑ Cobble ☑ Boulder ☐ Rock ☑ Manmade ☐ Crown Closure

Left Bank: Shape: V - shape Texture: Fines ☑ Gravel ☑ Cobble ☑ Boulder ☐ Rock ☑ Manmade ☐ 21-40%

Right Bank: Rip.Veg: Coniferous Stage: Mature forest

Left Bank: Rip.Veg: Stage: Mature forest Instream Veg: None ☐ Algae ☐ Moss ☑ Vascular ☐

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
27	EF	1	150	359 sec	700	NFC	0		

Roll# 2, Frame# 5, CD# 1, Image#19, Direction: Upstream, Scale/Comment:cam bag
Roll# 2, Frame# 6, CD# 1, Image#20, Direction: Downstream, Scale/Comment:cam bag
site = ~20m d/s from "trib" = UTM. Rearing Habitat - moderate overall, fairly fast flow although cover usable in some shallow pools. Spawning Habitat - none - substrate mixed and angular. Overwintering Habitat - none - too shallow

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach # 4.0 | ILP Map # | ILP #

Watershed Code: 480-802100-42400-09600-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 480-802100-42400-09600-0000-0000-000-000-000-000-000-000 **ILP Map #:** **ILP #:**

REACH

Reach #: 4.0 **UTM(Zone/East/North):** 10.306258.6055215 **Sample Type:** Biased

Length (km): 1.04 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 1.4 **Confinement:** Occasionally Con **Order:** 2 **Open water:**

US Elev (m): 1158 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 28 Field UTM 10.306677.6055145 Agency: C016 Crew: SR/MJ Date: 2002/07/08

Site Length (m): 120 GIS UTM 10.306674.6055132 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☑ High ☐

	Avg	Min	Max	#
Channel Width (m):	1.27	0.9	1.600	6
Wetted Width (m):	1.27	0.9	1.600	6
Bankfull Depth (m):	0.27	0.2	0.3	3

	Avg	Min	Max	#
Gradient %:	1.25	1	2	4
Pool Depth (m):	0.13	0.090	0.180	4

Temp (C): 7 pH: 7.9 Conductivity: 40

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Fines D95 (cm): 1.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐

Subdominant: Not Applicable D (cm): 0.10 Braid ☐

Channel Pattern: Sinuous Islands: Occasiona

Coupling: Decoupled

Confinement: Occasionally Confine

Morphology: LC Large Channel

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover: Trace

LWD: Few

LWD Dist: Evenly Distributed

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	T	N	N	S	D	N
Location: P/S/O:	☑☐☐	☑☐☐	☐☐☐	☐☐☐	☑☐☐	☑☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Sloping (g Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Sloping (g Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ 41-70%

Right Bank: Rip.Veg: Shrubs Stage: Not Applicable

Left Bank: Rip.Veg: Stage: Not Applicable Instream Veg: None ☑ Algae ☐ Moss ☐ Vascular ☐

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
28	EF	1	120	389 sec	700	NFC	0		

Roll# 2, Frame# 19, CD# 1, Image#33, Direction: Upstream, Scale/Comment:cam bag
Roll# 2, Frame# 20, CD# 1, Image#34, Direction: Downstream, Scale/Comment:cam bag
defined flow over fines, branches through alder corridor. NFC already in 3 sites, unlikely CT use. site = UTM. Overwintering Habitat - none - too shallow. Spawning Habitat - none - no gravels suitable. Rearing Habitat - fair - occasional deep enough section hidden by overstream vegetation, but no use

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93K.061	61744

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93K.061 **ILP #:** 61744

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 10.307347.6055688 **Sample Type:** Biased

Length (km): .26 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 4.6 **Confinement:** Frequently Confin **Order:** 1 **Open water:**

US Elev (m): 1133 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 29 Field UTM 10.307605.6055738 Agency: C016 Crew: SR/MJ Date: 2002/07/07

Site Length (m): 100 GIS UTM 10.307573.6055722 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Temp (C): pH: Conductivity:

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: D (cm):

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

	C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

no any kind of drainage at mapped location or 100m radius. site = UTM. Other - No fish habitat

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach # ILP Map # ILP #

Watershed Code: 480-802100-42400-54400-0000-0000-000-000-000-000-000-000 1.0

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 480-802100-42400-54400-0000-0000-000-000-000-000-000-000 **ILP Map #:** **ILP #:**

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.693493.6056242 **Sample Type:** Biased

Length (km): .33 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 3.3 **Confinement:** Confined **Order:** 3 **Open water:**

US Elev (m): 1148 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 30 Field UTM 10.306335.6056180 Agency: C016 Crew: SR/MJ Date: 2002/07/08

Site Length (m): 150 GIS UTM 10.306343.6056201 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☑ High ☐

	Avg	Min	Max	#
Channel Width (m):	2.03	1.700	2.400	6
Wetted Width (m):	2.03	1.700	2.400	6
Bankfull Depth (m):	0.37	0.3	0.4	3

	Avg	Min	Max	#
Gradient %:	2.25	2	3	4
Pool Depth (m):	0.44	0.370	0.52	4

Temp (C): 9 pH: 8.0 Conductivity: 30

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Cobble D95 (cm): 25.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: Gravels D (cm): 6.00

Channel Pattern: Sinuous Islands: None

Coupling: Partially Coupled

Confinement: Frequently Confined

Morphology: RP Riffle Pool

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover: Abundant

LWD: Few

LWD Dist: Evenly Distributed

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	T	S	T	D	T	N
Location: P/S/O:	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: V - shape Texture: Fines ☑ Gravel ☐ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: V - shape Texture: Fines ☑ Gravel ☐ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ 21-40%

Right Bank: Rip.Veg: Shrubs Stage: Not Applicable

Left Bank: Rip.Veg: Stage: Not Applicable Instream Veg: None ☑ Algae ☐ Moss ☐ Vascular ☐

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
30	EF	1	150	413 sec	700	CT	4	54	114

Roll# 3, Frame# 5, CD# 1, Image#42, Direction: Upstream, Scale/Comment:cam bag
Roll# 3, Frame# 6, CD# 1, Image#43, Direction: Downstream, Scale/Comment:cam bag
3 CT below cascade, 50m from mouth. also sampled 410 sec in R.2 with NFC. observed abundant old BD's in R2. why few CT above small cascade?. substrate all angular. site = UTM. Spawning Habitat - poor - all gravels large/angular. Rearing Habitat - excellent in abundant LWD-deep pools, very deep, often SWD as cover. Overwintering Habitat - good - in deep pool habitat

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach # ILP Map # ILP #

Watershed Code: 480-802100-42400-54400-0000-0000-000-000-000-000-000-000 3.0

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 480-802100-42400-54400-0000-0000-000-000-000-000-000-000 **ILP Map #:** **ILP #:**

REACH

Reach #: 3.0 **UTM(Zone/East/North):** 9.692671.6055676 **Sample Type:** Biased

Length (km): .95 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 2.3 **Confinement:** Occasionally Con **Order:** 3 **Open water:**

US Elev (m): 1184 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 31 Field UTM 9.692807.6056085 Agency: C016 Crew: SR/MJ Date: 2002/07/08

Site Length (m): 120 GIS UTM 10.305400.6056153 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☑ High ☐

	Avg	Min	Max	#
Channel Width (m):	1.72	1.3	2.1	6
Wetted Width (m):	1.72	1.3	2.1	6
Bankfull Depth (m):	0.33	0.3	0.4	3

	Avg	Min	Max	#
Gradient %:	2.75	1	4	4
Pool Depth (m):	0.29	0.200	0.370	4

Temp (C): 9 pH: 8.1 Conductivity: 30

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Cobble D95 (cm): 12.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: Fines D (cm): 4.00

Channel Pattern: Sinuous Islands: None

Coupling: Decoupled

Confinement: Occasionally Confine

Morphology: CP Cascade Pool

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☑	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover: Abundant

LWD: Few

LWD Dist: Evenly Distributed

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	T	S	T	D	T	N
Location: P/S/O:	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Sloping (g Texture: Fines ☑ Gravel ☐ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: V - shape Texture: Fines ☑ Gravel ☐ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ 21-40%

Right Bank: Rip.Veg: Shrubs Stage: Not Applicable

Left Bank: Rip.Veg: Stage: Not Applicable Instream Veg: None ☐ Algae ☐ Moss ☑ Vascular ☐

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
31	EF	1	120	257 sec	700	NFC	0		

Roll# 3, Frame# 7, CD# 1, Image#44, Direction: Downstream, Scale/Comment:MJ - stacking photos of BD making pond in r. 3 of -54400

Roll# 3, Frame# 8, CD# 1, Image#45, Direction: Downstream, Scale/Comment:none

Roll# 3, Frame# 12, CD# 1, Image#49, Direction: Upstream, Scale/Comment:cam bag

Roll# 3, Frame# 13, CD# 1, Image#50, Direction: Downstream, Scale/Comment:cam bag

site = UTM = on u/s side of lake. BD's - repeating process of BD/pond, then steeper with cobbles, cascades. Rearing Habitat - moderate to good, especially in steeper sections in CP cover, boulder/cobble. Spawning Habitat - none - no gravels. Overwintering Habitat - moderate - nice deep pools, perennial flow

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach # 3.1 ILP Map # ILP #

Watershed Code: 480-802100-42400-54400-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 480-802100-42400-54400-0000-0000-000-000-000-000-000-000 **ILP Map #:** **ILP #:**

REACH

Reach #: 3.1 **UTM(Zone/East/North):** 9.692490.6055671 **Sample Type:** Biased

Length (km): .18 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 4.4 **Confinement:** Occasionally Con **Order:** 2 **Open water:**

US Elev (m): 1192 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 32 Field UTM 9.692625.6055695 Agency: C016 Crew: SR/MJ Date: 2002/07/23

Site Length (m): 100 GIS UTM 10.305198.6055756 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☑ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	1.35	1	1.700	6
Wetted Width (m):	0.88	0.600	1.100	6
Bankfull Depth (m):	0.23	0.2	0.3	3

	Avg	Min	Max	#
Gradient %:	5.50	3	7	4
Pool Depth (m):	0.13	0.090	0.180	4

Temp (C): 9 pH: 8.4 Conductivity: 30

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Cobble D95 (cm): 30.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐

Subdominant: Fines D (cm): 8.00 Braid ☐

Channel Pattern: Sinuous Islands: None

Coupling: Partially Coupled

Confinement: Frequently Confined

Morphology: CP Cascade Pool

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover: Moderate

LWD: Few

LWD Dist: Evenly Distributed

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	T	D	N	T	S	N
Location: P/S/O:	☑☐☐	☑☐☐	☑☐☐	☐☐☐	☑☐☐	☑☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: V - shape Texture: Fines ☑ Gravel ☐ Cobble ☑ Boulder ☑ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: V - shape Texture: Fines ☑ Gravel ☐ Cobble ☑ Boulder ☑ Rock ☐ Manmade ☐ 41-70%

Right Bank: Rip.Veg: Shrubs Stage: Not Applicable

Left Bank: Rip.Veg: Stage: Not Applicable Instream Veg: None ☐ Algae ☐ Moss ☑ Vascular ☐

FEATURES

NID Map	NID	Type	Hgt	Method	Lg	Method	Photo				UTM (Z/E/N)	Method
093L.070	30321	C	2.5	AL	4	GE	R:	5	F:	12	9.692501.6055670	GIS

Comments: impassable to all fish - no pool

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
32	EF	1	100	289 sec	600	NFC	0		

Roll# 5, Frame# 9, CD# 1, Image#80, Direction: Upstream, Scale/Comment:probe - cobble channel section
Roll# 5, Frame# 10, CD# 1, Image#81, Direction: Downstream, Scale/Comment:cam bag - cobble channel section
Roll# 5, Frame# 11, CD# 1, Image#82, Direction: Upstream, Scale/Comment:lower gradient pooled water section = repeating sequence over fines/detritus
Roll# 5, Frame# 12, CD# 1, Image#83, Direction: Upstream, Scale/Comment:SR - cascade in features = EFU
has fair usable and accessible habitat, infer CT presence, none in R. 3 either, very low numbers. site = UTM =50m u/s from lake. CP over mossy cobbles, but occasional low gradient wider sections. Rearing Habitat - fair - occasional deep pools, but overall pretty shallow CP morphology over mossy cobbles. Spawning Habitat - none - usually large cobbles or fines - no uniform gravels. Overwintering Habitat - none - no pools deep enough

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach # ILP Map # ILP #

Watershed Code: 480-802100-42400-54400-0000-0000-000-000-000-000-000-000 4.0

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 480-802100-42400-54400-0000-0000-000-000-000-000-000-000 **ILP Map #:** **ILP #:**

REACH

Reach #: 4.0 **UTM(Zone/East/North):** 9.690854.6055315 **Sample Type:** Biased

Length (km): 2.00 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 5.0 **Confinement:** Frequently Confin **Order:** 2 **Open water:**

US Elev (m): 1291 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 33 Field UTM 9.692488.6055670 Agency: C016 Crew: SR/MJ Date: 2002/07/23

Site Length (m): 200 GIS UTM 10.305038.6055776 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☑ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	1.22	0.800	1.700	6
Wetted Width (m):	1.18	0.800	1.700	6
Bankfull Depth (m):	0.33	0.3	0.4	3

	Avg	Min	Max	#
Gradient %:	4.00	3	5	4
Pool Depth (m):	0.32	0.270	0.38	5

Temp (C): 9 pH: 8.4 Conductivity: 30

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Cobble D95 (cm): 20.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: Fines D (cm): 3.00

Channel Pattern: Irregular, Wandering Islands: None

Coupling: Decoupled

Confinement: Occasionally Confine

Morphology: RP Riffle Pool

DISTURBANCE INDICATORS: O1 ☐ B1 ☐ B2 ☐ B3 ☐ D1 ☐ D2 ☐ D3 ☐

C1 ☐ C2 ☐ C3 ☐ C4 ☐ C5 ☐ S1 ☐ S2 ☐ S3 ☐ S4 ☐ S5 ☐

COVER

Total Cover: Abundant

LWD: Few

LWD Dist: Evenly Distributed

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	T	T	T	D	S	N
Location: P/S/O:	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: V - shape Texture: Fines ☑ Gravel ☐ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: V - shape Texture: Fines ☑ Gravel ☐ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ 21-40%

Right Bank: Rip.Veg: Coniferous Stage: Mature forest

Left Bank: Rip.Veg: Stage: Mature forest Instream Veg: None ☐ Algae ☐ Moss ☑ Vascular ☐

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
33	EF	1	200	506 sec	600	NFC	0		

Roll# 5, Frame# 13, CD# 1, Image#84, Direction: Upstream, Scale/Comment:cam bag
Roll# 5, Frame# 14, CD# 1, Image#85, Direction: Downstream, Scale/Comment:cam bag
sampled nice CT habitat extensively. slightly lower gradient and deeper pools, less cobble pool (cascade) morph. same morphology as below, but non fish. 3rd site NFC in creek. site = from cascade. Rearing Habitat - good in abundant v. deep pools. Spawning Habitat - poor (none) - no suitable gravels (i.e. CT isolated not possible - no spawning). Overwintering Habitat - poor-fair - deep pools present now, but already v. little flow - will either stop flowing and dry up, or freeze. Other - isolated above cascade - NFP above

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
.1	93L.070	70704

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.070 **ILP #:** 70704

REACH

Reach #: .1 **UTM(Zone/East/North):** 9.692723.6056175 **Sample Type:** Biased

Length (km): .14 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 5.7 **Confinement:** Confined **Order:** 2 **Open water:**

US Elev (m): 1177 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 34 Field UTM 9.692869.6056222 Agency: C016 Crew: SR/MJ Date: 2002/07/08

Site Length (m): 100 GIS UTM 10.305440.6056268 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☑ High ☐

	Avg	Min	Max	#
Channel Width (m):	1.77	1.4	2.200	6
Wetted Width (m):	1.77	1.4	2.200	6
Bankfull Depth (m):	0.27	0.2	0.3	3

	Avg	Min	Max	#
Gradient %:	2.25	2	3	4
Pool Depth (m):	0.24	0.140	0.310	5

Temp (C): 9 pH: 8.0 Conductivity: 30

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Gravels D95 (cm): 12.00 Bars: Non ☐ Side ☑ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: Cobble D (cm): 3.00

Channel Pattern: Sinuous Islands: None

Coupling: Decoupled

Confinement: Occasionally Confine

Morphology: RP Riffle Pool

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover: Moderate

LWD: Few

LWD Dist: Evenly Distributed

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	T	N	T	D	S	N
Location: P/S/O:	☑☐☐	☑☐☐	☐☐☐	☑☐☐	☑☐☐	☑☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Sloping (g Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: V - shape Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ 21-40%

Right Bank: Rip.Veg: Shrubs Stage: Not Applicable

Left Bank: Rip.Veg: Stage: Not Applicable Instream Veg: None ☐ Algae ☐ Moss ☑ Vascular ☐

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
34	EF	1	100	104 sec	700	CT	1	188	188

Roll# 3, Frame# 9, CD# 1, Image#46, Direction: Upstream, Scale/Comment:MJ
Roll# 3, Frame# 10, CD# 1, Image#47, Direction: Downstream, Scale/Comment:cambag
Roll# 3, Frame# 11, CD# 1, Image#48, Direction: Downstream, Scale/Comment:fish photo #3-11
site = UTM = mouth = pond. stream carries bulk of flow for drainage. CT presence - surprised. Spawning Habitat - mod - abundant gravels, but most angular. Overwintering Habitat - fair-mod - may lack sufficient depth. Rearing Habitat - mod-good in occasional deep pool cover, extensive overstream vegetation and bridged banks

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L_070	70704

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L_070 **ILP #:** 70704

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.692446.6056046 **Sample Type:** Biased

Length (km): .30 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 6.7 **Confinement:** Frequently Confin **Order:** 2 **Open water:**

US Elev (m): 1197 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 35 Field UTM 9.692665.6056173 Agency: C016 Crew: SR/MJ Date: 2002/07/23

Site Length (m): 250 GIS UTM 10.305316.6056261 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☑ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.70	0.400	1	5
Wetted Width (m):	0.38	0.200	0.7	5
Bankfull Depth (m):	0.17	0.1	0.2	3

	Avg	Min	Max	#
Gradient %:	2.75	1	5	4
Pool Depth (m):	0.04	0.02	0.070	3

Temp (C): 9 pH: 8.6 Conductivity: 30

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Fines D95 (cm): 10.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: Cobble D (cm): 0.05

Channel Pattern: Sinuous Islands: None

Coupling: Decoupled

Confinement: Occasionally Confine

Morphology: RP Riffle Pool

DISTURBANCE INDICATORS: O1 ☐ B1 ☐ B2 ☐ B3 ☐ D1 ☐ D2 ☐ D3 ☐

C1 ☐ C2 ☐ C3 ☐ C4 ☐ C5 ☐ S1 ☐ S2 ☐ S3 ☐ S4 ☐ S5 ☐

COVER

Total Cover: None

LWD: Few

LWD Dist: Evenly Distributed

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	N	N	N	N	N	N	N
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: V - shape Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: V - shape Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ 41-70%

Right Bank: Rip.Veg: Coniferous Stage: Mature forest

Left Bank: Rip.Veg: Stage: Mature forest Instream Veg: None ☐ Algae ☐ Moss ☑ Vascular ☐

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
35	EF	1	250	167 sec	600	NFC	0		

Roll# 5, Frame# 2, CD# 1, Image#73, Direction: Downstream, Scale/Comment:cam bag - no channel
Roll# 5, Frame# 3, CD# 1, Image#74, Direction: Upstream, Scale/Comment:cam bag - "pool"
site = UTM (at junction of real 70706 and 70704. possible mapping error - at site location north branch is mainstem, likely real location of 70706 mouth, and this branch (70704) is a crap trib, 70706 may connect to 70704 (mapped) at close spot (on map) - air photo interpretation confirms this. marginal FPC stream, seasonally wetted tiny channel over organics, detritus with no fish habitat or potential. frequently discontinuous channel/subflow. Rearing Habitat - none - tiny, shallow, organics - no flow or depth for CT. Spawning Habitat - none. Overwintering Habitat - none and none u/s.

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.070	70705

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.070 **ILP #:** 70705

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.692477.6056419 **Sample Type:** Biased

Length (km): .37 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 4.1 **Confinement:** Frequently Confin **Order:** 1 **Open water:**

US Elev (m): 1190 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 36 Field UTM 9.692751.6056208 Agency: C016 Crew: SR/MJ Date: 2002/07/23

Site Length (m): 100 GIS UTM 10.305345.6056276 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

Temp (C): pH: Conductivity:

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: D (cm):

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Roll# 5, Frame# 1, CD# 1, Image#72, Direction: Upstream, Scale/Comment:boot
not a creek - seepage, occasionally wet spots in moss - no continuous channel, no fluvium, no fish habitat. site = mouth. Other - none

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
.1	93L.070	70706

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.070 **ILP #:** 70706

REACH

Reach #: .1 **UTM(Zone/East/North):** 9.692474.6056256 **Sample Type:** Biased
Length (km): .25 **Coupling:** **Magnitude:** **BGC Zone:**
Gradient (%): 6.0 **Confinement:** Occasionally Con **Order:** 1 **Open water:**
US Elev (m): 1192 **Islands:** **Riparian Vegetation:**
Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 37 Field UTM 9.692665.6056173 Agency: C016 Crew: SR/MJ Date: 2002/07/23
Site Length (m): 120 GIS UTM 10.305316.6056261 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐
Dewatered: ☐ Tribs.: ☐
Stage: Low ☑ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	1.13	0.9	1.4	6
Wetted Width (m):	0.97	0.7	1.200	6
Bankfull Depth (m):	0.20	0.2	0.2	3

	Avg	Min	Max	#
Gradient %:	4.00	3	5	4
Pool Depth (m):	0.15	0.08	0.24	5

Temp (C): 9 pH: 8.4 Conductivity: 30
Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Cobble D95 (cm): 14.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐
Subdominant: Fines D (cm): 5.00
Channel Pattern: Irregular, Wandering Islands: None
Coupling: Decoupled
Confinement: Occasionally Confine
Morphology: CP Cascade Pool

DISTURBANCE INDICATORS: O1 ☐ B1 ☐ B2 ☐ B3 ☐ D1 ☐ D2 ☐ D3

C1 ☐ C2 ☐ C3 ☐ C4 ☐ C5 ☐ S1 ☐ S2 ☐ S3 ☐ S4 ☐ S5

COVER

Total Cover: Moderate
LWD: Few
LWD Dist: Evenly Distributed

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	T	S	N	D	S	N
Location: P/S/O:	☑ ☐ ☐	☑ ☐ ☐	☑ ☐ ☐	☐ ☐ ☐	☑ ☐ ☐	☑ ☐ ☐	☐ ☐ ☐

FSZ: ☐

Right Bank: Shape: V - shape Texture: Fines ☑ Gravel ☐ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure
Left Bank: Shape: V - shape Texture: Fines ☑ Gravel ☐ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ 41-70%
Right Bank: Rip.Veg: Coniferous Stage: Mature forest
Left Bank: Rip.Veg: Stage: Mature forest Instream Veg: None ☐ Algae ☐ Moss ☑ Vascular ☐

FEATURES

NID Map	NID	Type	Hgt	Method	Lg	Method	Photo	UTM (Z/E/N)	Method
093L.070	30372	F	1.0	AL		GE	R: 5 F: 6	9.692486.6056254	GIS

Comments: blocks fish passage - impassable

NID Map	NID	Type	Hgt	Method	Lg	Method	Photo	UTM (Z/E/N)	Method
093L.070	30371	BMA		AL		GE	R: F:	9.692712.6056180	GIS

Comments: site utm = real mouth and this is real mainstem

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
37	EF	1	100	284 sec	600	CT	1	197	197

Roll# 5, Frame# 4, CD# 1, Image#75, Direction: Upstream, Scale/Comment:cam bag. Roll# 5, Frame# 5, CD# 1, Image#76, Direction: Downstream, Scale/Comment:cam bag. Roll# 5, Frame# 6, CD# 1, Image#77, Direction: Upstream, scale/ Comment:cam bag - falls in features. mapped wrong at mouth, likely u/s too. stream alternates between fairly confined over cobbles (nice habitat), and impounded, flooded, flat areas over detritus. upper site UTM 9.692583.6056226, this stream is real mainstem of the system. site = starts at branch = UTM. only 1 CT caught near mouth. Other - falls at the end of reach blocks fish access. Rearing Habitat - mod-good - mainly in cobbled sections, marginal sections with poor rearing in backed up, pooled, flooded sections. Spawning Habitat - poor - mainly angular cobbles, then detritus. Overwintering Habitat - poor - lacks significant deep pools

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.070	70706

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.070 **ILP #:** 70706

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.691782.6056204 **Sample Type:** Biased
Length (km): .73 **Coupling:** **Magnitude:** **BGC Zone:**
Gradient (%): 4.4 **Confinement:** Occasionally Con **Order:** 1 **Open water:**
US Elev (m): 1224 **Islands:** **Riparian Vegetation:**
Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 38 Field UTM 9.692465.6056261 Agency: C016 Crew: SR/MJ Date: 2002/07/23
Site Length (m): 150 GIS UTM 10.305065.6056367 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐
Dewatered: ☐ Tribs.: ☐
Stage: Low ☑ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	1.25	0.9	1.8	6
Wetted Width (m):	1.10	0.800	1.8	6
Bankfull Depth (m):	0.33	0.3	0.4	3

	Avg	Min	Max	#
Gradient %:	6.00	3	8	4
Pool Depth (m):	0.22	0.140	0.310	4

Temp (C): 9 pH: 8.4 Conductivity: 30
Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Cobble D95 (cm): 14.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐
Subdominant: Fines D (cm): 3.00
Channel Pattern: Irregular, Wandering Islands: None
Coupling: Decoupled
Confinement: Occasionally Confine
Morphology: CP Cascade Pool

DISTURBANCE INDICATORS: O1 ☐ B1 ☐ B2 ☐ B3 ☐ D1 ☐ D2 ☐ D3 ☐

C1 ☐ C2 ☐ C3 ☐ C4 ☐ C5 ☐ S1 ☐ S2 ☐ S3 ☐ S4 ☐ S5 ☐

COVER

Total Cover: Moderate
LWD: Few
LWD Dist: Evenly Distributed

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	T	S	T	D	S	N
Location: P/S/O:	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: V - shape Texture: Fines ☑ Gravel ☐ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure
Left Bank: Shape: V - shape Texture: Fines ☑ Gravel ☐ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ 41-70%
Right Bank: Rip.Veg: Coniferous Stage: Mature forest
Left Bank: Rip.Veg: Stage: Mature forest Instream Veg: None ☐ Algae ☐ Moss ☑ Vascular ☐

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
38	EF	1	150	313 sec	600	NFC	0		

Roll# 5, Frame# 7, CD# 1, Image#78, Direction: Upstream, Scale/Comment:cam bag - showing cobble channel area
Roll# 5, Frame# 8, CD# 1, Image#79, Direction: Downstream, Scale/Comment:cam bag - showing impounded water area
site UTM = from falls. also NFC below falls almost to mouth. has suitable habitat but small falls d/s enough to block access and prevent CT use, no significant O habitat to sustain isolated population, no spawning. Overwintering Habitat - fair - occasional pools may be deep enough, but none significant. Other - falls at end of R.01 block fish passage and marks EFU. Spawning Habitat - none - substrate = cobble or angular or detritus. Rearing Habitat - mod-good - mainly in deeper cascade pools below cobble

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.070	70709

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.070 **ILP #:** 70709

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.692797.6055412 **Sample Type:** Biased

Length (km): .27 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 5.6 **Confinement:** Occasionally Con **Order:** 1 **Open water:**

US Elev (m): 1198 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 39 Field UTM 9.692823.6055643 Agency: C016 Crew: SR/MJ Date: 2002/07/08

Site Length (m): 100 GIS UTM 10.305370.6055746 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

Temp (C): pH: Conductivity:

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐

Subdominant: D (cm): Braid ☐

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

site = mouth. not an FPC stream, no fish habitat or passage, no fluvium or continuous channel bed. Other - none

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach # ILP Map # ILP #

Watershed Code: 480-802100-43000-00000-0000-0000-000-000-000-000-000-000 1.0

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 480-802100-43000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** **ILP #:**

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 10.308019.6055527 **Sample Type:** Biased

Length (km): .22 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 5.9 **Confinement:** Confined **Order:** 1 **Open water:**

US Elev (m): 1108 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 40 Field UTM 10.308105.6055602 Agency: C016 Crew: MJ/SR Date: 2002/07/07

Site Length (m): 200 GIS UTM 10.308174.6055628 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

Temp (C): pH: Conductivity:

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐

Subdominant: D (cm): Braid ☐

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Roll# 2, Frame# 10, CD# 1, Image#24, Direction: Upstream, Scale/Comment:cam bag
Roll# 2, Frame# 11, CD# 1, Image#25, Direction: Downstream, Scale/Comment:MJ
site = UTM = ~50mu/s from mouth. seepage in 30m wide valley with discontinuous channel, no fluvium - organics and sticks, frequently percolates through forest floor. Other - No fish habitat

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93K.061	61748

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93K.061 **ILP #:** 61748

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 10.307620.6054535 **Sample Type:** Biased

Length (km): .66 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 5.9 **Confinement:** Confined **Order:** 1 **Open water:**

US Elev (m): 1153 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 41 Field UTM 10.308012.6055119 Agency: C016 Crew: MJ/SR Date: 2002/07/07

Site Length (m): 100 GIS UTM 10.307936.6055061 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	19.50	7	32	2
Pool Depth (m):	0.00	0	0	0

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

Temp (C): pH: Conductivity:

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐

Subdominant: D (cm): Braid ☐

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Roll# 2, Frame# 12, CD# 1, Image#26, Direction: Upstream, Scale/Comment:cam bag/book
Roll# 2, Frame# 13, CD# 1, Image#27, Direction: Downstream, Scale/Comment:cam bag
NCD, drains valley than descends to Pierre C. at 32% for 30m, flattens out on bench, no fluvium, no banks. site = UTM. Other - No fish habitat

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93K.061	61749

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93K.061 **ILP #:** 61749

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 10.306830.6054843 **Sample Type:** Biased

Length (km): .17 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 4.1 **Confinement:** Frequently Confin **Order:** 2 **Open water:**

US Elev (m): 1145 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 42 Field UTM 10.306975.6054761 Agency: C016 Crew: SR/MJ Date: 2002/07/08

Site Length (m): 120 GIS UTM 10.306973.6054752 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☑ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.92	0.400	1.600	6
Wetted Width (m):	0.92	0.400	1.600	6
Bankfull Depth (m):	0.17	0.1	0.2	3

	Avg	Min	Max	#
Gradient %:	3.25	2	4	4
Pool Depth (m):	0.17	0.04	0.340	6

Temp (C): 10 pH: 7.9 Conductivity: 20

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Cobble D95 (cm): 25.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: Gravels D (cm): 3.00

Channel Pattern: Sinuous Islands: Frequent

Coupling: Decoupled

Confinement: Occasionally Confine

Morphology: CP Cascade Pool

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover: Moderate

LWD: Few

LWD Dist: Evenly Distributed

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	T	S	N	D	T	N
Location: P/S/O:	☑☐☐	☑☐☐	☑☐☐	☐☐☐	☑☐☐	☑☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: V - shape Texture: Fines ☑ Gravel ☐ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: V - shape Texture: Fines ☑ Gravel ☐ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ 41-70%

Right Bank: Rip.Veg: Coniferous Stage: Mature forest

Left Bank: Rip.Veg: Stage: Mature forest Instream Veg: None ☐ Algae ☐ Moss ☑ Vascular ☐

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
42	EF	1	120	204 sec	600	CT	4	71	131

Roll# 2, Frame# 16, CD# 1, Image#30, Direction: Upstream, Scale/Comment:MJ
Roll# 2, Frame# 17, CD# 1, Image#31, Direction: Downstream, Scale/Comment:cam bag
frequent subflow, but CT present in pools near mouth. CT caught to end of R.1. cobble pools generally quite shallow. nice little flow. site = mouth. Overwintering Habitat - none - too shallow, lacks flow - better near upper end near wetland. Rearing Habitat - good in occasional deep cascade pools - no other rearing (too shallow). Spawning Habitat - poor - occasional gravels, but none significant

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
2.0	93K.061	61749

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93K.061 **ILP #:** 61749

REACH

Reach #: 2.0 **UTM(Zone/East/North):** 9.693523.6054762 **Sample Type:** Biased

Length (km): .69 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 2.9 **Confinement:** Occasionally Con **Order:** 2 **Open water:**

US Elev (m): 1172 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 43 Field UTM 10.306691.6054939 Agency: C016 Crew: SR/MJ Date: 2002/07/08

Site Length (m): 150 GIS UTM 10.306698.6054895 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Temp (C): pH: Conductivity:

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: D (cm):

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Roll# 2, Frame# 18, CD# 1, Image#32, Direction: Upstream, Scale/Comment:SR
stream gets most water from this bog, NFC up to site UTM anyway, but channel disperses in grassy meadow with no fish habitat or connection u/s. site = UTM = POD. no overwinter u/s, NFB above (S5/S6/NCD). Other - none

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93K.061	61750

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93K.061 **ILP #:** 61750

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 10.306980.6054316 **Sample Type:** Biased
Length (km): .41 **Coupling:** **Magnitude:** **BGC Zone:**
Gradient (%): 2.2 **Confinement:** Unconfined **Order:** 1 **Open water:**
US Elev (m): 1148 **Islands:** **Riparian Vegetation:**
Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 44 Field UTM 10.306989.6054714 Agency: C016 Crew: SR/MJ Date: 2002/07/08
Site Length (m): 150 - GIS UTM 10.306907.6054674 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐
Dewatered: ☐ Tribs.: ☐
Stage: Low ☐ Med ☑ High ☐

	Avg	Min	Max	#
Channel Width (m):	1.43	0.7	2	6
Wetted Width (m):	1.35	0.5	1.700	6
Bankfull Depth (m):	0.27	0.2	0.3	3

	Avg	Min	Max	#
Gradient %:	1.50	1	2	4
Pool Depth (m):	0.16	0.16	0.16	1

Temp (C): 7 pH: 8.2 Conductivity: 40
Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Fines D95 (cm): 2.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐
Subdominant: Gravels D (cm): 0.50 Braid ☐

Channel Pattern: Sinuous Islands: Occasiona
Coupling: Partially Coupled
Confinement: Occasionally Confine
Morphology: RP Riffle Pool

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover: Trace
LWD: Abundant
LWD Dist: Evenly Distributed

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	S	N	N	D	T	T
Location: P/S/O:	☑☐☐	☑☐☐	☐☐☐	☐☐☐	☑☐☐	☑☐☐	☑☐☐

FSZ: ☐

Right Bank: Shape: V - shape Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure
Left Bank: Shape: Sloping (g Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ 41-70%
Right Bank: Rip.Veg: Coniferous Stage: Mature forest
Left Bank: Rip.Veg: Stage: Mature forest Instream Veg: None ☐ Algae ☑ Moss ☐ Vascular ☐

FEATURES

NID Map	NID	Type	Hgt	Method	Lg	Method	Photo				UTM (Z/E/N)	Method
093K.061	30441	BMA		AL		GE	R:		F:		10.306907.6054693	GIS

Comments: mapped wrong, utm = map utm of mouth

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
44	EF	1	150	182 sec	600	NFC	0		

Roll# 2, Frame# 14, CD# 1, Image#28, Direction: Upstream, Scale/Comment:SR
Roll# 2, Frame# 15, CD# 1, Image#29, Direction: Downstream, Scale/Comment:cam bag
site = UTM = mouth (mapped wrong). channel width = wide standing pools over algae, organics. flows into Pierre C. side channel. substrate almost all organic fines, covered with orange algae. little flow - water from gully wall percolation. no mosquitoes. Overwintering Habitat - none - shallow, seasonal. Spawning Habitat - none - no suitable substrate. Rearing Habitat - poor - shallow, standing water over organics, algae (low Oxygen), where flowing = narrow flow over marginal channel (seasonal) - if CT used, would have caught

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.060	60708

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.060 **ILP #:** 60708

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.692369.6053966 **Sample Type:** Biased
Length (km): .16 **Coupling:** **Magnitude:** **BGC Zone:**
Gradient (%): 14.4 **Confinement:** Confined **Order:** 1 **Open water:**
US Elev (m): 1202 **Islands:** **Riparian Vegetation:**
Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 45 Field UTM 9.692348.6053848 Agency: C016 Crew: MJ/SR Date: 2002/07/09
Site Length (m): 100 GIS UTM10.304743.6053972 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐
Dewatered: ☐ Tribs.: ☐
Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐
Temp (C): pH: Conductivity:

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐
Subdominant: D (cm): Braid ☐
Channel Pattern: Islands:
Coupling:
Confinement:
Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:
LWD:
LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure
Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐
Right Bank: Rip.Veg: Stage:
Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Roll# 4, Frame# 10, CD# 1, Image#71, Direction: Upstream, Scale/Comment:cam bag
site = UTM. mostly underground draw in gully. Other - No fish habitat

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.060	60709

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000-000 **ILP Map #:** 93L.060 **ILP #:** 60709

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.691909.6054212 **Sample Type:** Biased

Length (km): .53 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 7.7 **Confinement:** Frequently Confin **Order:** 1 **Open water:**

US Elev (m): 1225 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 46 Field UTM 9.692142.6053801 Agency: C016 Crew: MJ/SR Date: 2002/07/09

Site Length (m): 100 GIS UTM 10.304469.6053941 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Temp (C): pH: Conductivity:

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐

Subdominant: D (cm): Braid ☐

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Roll# 4, Frame# 9, CD# 1, Image#70, Direction: Upstream, Scale/Comment:cam bag
site = UTM = POD. NCD - discontinuous drainage, no fluvium, no banks, steep at valley wall, no connectivity to Pierre C., seepage disperse 50m away from Pierre C. Other - No fish habitat

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.060	60710

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.060 **ILP #:** 60710

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.691043.6053227 **Sample Type:** Biased

Length (km): .78 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 5.1 **Confinement:** Frequently Confin **Order:** 1 **Open water:**

US Elev (m): 1235 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 47 Field UTM 9.691578.6053657 Agency: C016 Crew: MJ/SR Date: 2002/07/09

Site Length (m): 200 GIS UTM 10.303896.6053873 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☑ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.67	0.5	0.800	6
Wetted Width (m):	0.62	0.5	0.7	6
Bankfull Depth (m):	0.13	0.1	0.2	3

	Avg	Min	Max	#
Gradient %:	4.25	3	5	4
Pool Depth (m):	0.19	0.11	0.340	3

Temp (C): 6 pH: 7.0 Conductivity: 20

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Fines D95 (cm): 2.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: Gravels D (cm): 2.00

Channel Pattern: Irregular, Wandering Islands: None

Coupling: Partially Coupled

Confinement: Frequently Confined

Morphology: RP Riffle Pool

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover: Abundant

LWD: Few

LWD Dist: Evenly Distributed

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	T	N	D	T	T	N
Location: P/S/O:	☑ ☐ ☐	☑ ☐ ☐	☐ ☐ ☐	☑ ☐ ☐	☑ ☐ ☐	☑ ☐ ☐	☐ ☐ ☐

FSZ: ☐

Right Bank: Shape: Undercut Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Undercut Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ 21-40%

Right Bank: Rip.Veg: Coniferous Stage: Mature forest

Left Bank: Rip.Veg: Stage: Mature forest Instream Veg: None ☑ Algae ☐ Moss ☐ Vascular ☐

FEATURES

NID Map	NID	Type	Hgt	Method	Lg	Method	Photo				UTM (Z/E/N)	Method
093L.060	30472	BMA		AL		GE	R:		F:		9.691500.6053700	GIS

Comments: Mouth is 100m to east of site UTM

NID Map	NID	Type	Hgt	Method	Lg	Method	Photo				UTM (Z/E/N)	Method
093L.060	30471	C	4.0	AL	15	GE	R:	4	F:	3	9.691511.6053677	GIS

Comments: 26%/15m mostly subflow, impassable to fish

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
47	EF	1	200	274 sec	800	NFC	0		

Roll# 4, Frame# 1, CD# 1, Image#62, Direction: Upstream, Scale/Comment:cam bag
Roll# 4, Frame# 2, CD# 1, Image#63, Direction: Downstream, Scale/Comment:cam bag
Roll# 4, Frame# 3, CD# 1, Image#64, Direction: Upstream, Scale/Comment:cam bag - cascade in features
site = UTM. ~50% subflow above cascade. Spawning Habitat - none - fines. Other - habitat isolated above cascade near mouth. Overwintering Habitat - none - too shallow. Rearing Habitat - available in deep undercut within lower 30m only (refuge from Pierre?)

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
.1	93L.060	60711

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.060 **ILP #:** 60711

REACH

Reach #: .1 **UTM(Zone/East/North):** 9.691524.6053792 **Sample Type:** Biased

Length (km): .09 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 6.7 **Confinement:** Frequently Confin **Order:** 2 **Open water:**

US Elev (m): 1201 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 48 Field UTM 9.691599.6053668 Agency: C016 Crew: MJ/SR Date: 2002/07/09

Site Length (m): 200 GIS UTM 10.303888.6053927 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☑ High ☐

	Avg	Min	Max	#
Channel Width (m):	1.07	0.7	1.4	6
Wetted Width (m):	1.05	0.7	1.4	6
Bankfull Depth (m):	0.20	0.2	0.2	3

	Avg	Min	Max	#
Gradient %:	2.25	2	3	4
Pool Depth (m):	0.15	0.090	0.19	3

Temp (C): 7 pH: 7.6 Conductivity: 20

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Gravels D95 (cm): 13.00 Bars: Non ☐ Side ☑ Diagonal ☐ Mid-channel ☐ Span ☐

Subdominant: Cobble D (cm): 3.00 Braid ☐

Channel Pattern: Irregular, Wandering Islands: None

Coupling: Decoupled

Confinement: Unconfined

Morphology: RP Riffle Pool

DISTURBANCE INDICATORS: O1 ☐ B1 ☐ B2 ☐ B3 ☐ D1 ☐ D2 ☐ D3 ☐

C1 ☐ C2 ☐ C3 ☐ C4 ☐ C5 ☐ S1 ☐ S2 ☐ S3 ☐ S4 ☐ S5 ☐

COVER

Total Cover: Abundant

LWD: Few

LWD Dist: Evenly Distributed

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	T	N	D	S	T	T
Location: P/S/O:	☑☐☐	☑☐☐	☐☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐

FSZ: ☐

Right Bank: Shape: Undercut Texture: Fines ☑ Gravel ☑ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Undercut Texture: Fines ☑ Gravel ☑ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ 21-40%

Right Bank: Rip.Veg: Coniferous Stage: Mature forest

Left Bank: Rip.Veg: Stage: Mature forest Instream Veg: None ☐ Algae ☐ Moss ☑ Vascular ☐

FEATURES

NID Map	NID	Type	Hgt	Method	Lg	Method	Photo	UTM (Z/E/N)	Method
093L.060	30482	BMA		AL		GE	R: F:	9.691490.6053725	GIS

Comments: Mouth at site UTM~200m d/s from mapped mouth.

NID Map	NID	Type	Hgt	Method	Lg	Method	Photo	UTM (Z/E/N)	Method
093L.060	30481	FSB	1.0	AL	7	GE	R: 4 F: 6	9.691519.6053784	GIS

Comments: 7m @ 15% - impassable to fish

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
48	EF	1	200	291 sec	800	NFC	0		

Roll# 4, Frame# 4, CD# 1, Image#65, Direction: Upstream, Scale/Comment:cam bag
Roll# 4, Frame# 5, CD# 1, Image#66, Direction: Downstream, Scale/Comment:cam bag
Roll# 4, Frame# 6, CD# 1, Image#67, Direction: Upstream, Scale/Comment:cam bag - FSB in features
site = UTM. Overwintering Habitat - none - too shallow. Rearing Habitat - good potential in nice CB/P cover. Spawning Habitat - suitable gravels present and cover

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach # 1.0 | ILP Map # 93L.060 | ILP # 60711

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.060 **ILP #:** 60711

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.691577.6054185 **Sample Type:** Biased
Length (km): .11 **Coupling:** **Magnitude:** **BGC Zone:**
Gradient (%): 6.4 **Confinement:** Occasionally Con **Order:** 1 **Open water:**
US Elev (m): 1208 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 49 Field UTM 9.691559.6053803 Agency: C016 Crew: MJ/SR Date: 2002/07/09
Site Length (m): 100 GIS UTM 10.303939.6054008 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐
Dewatered: ☐ Tribs.: ☐
Stage: Low ☐ Med ☑ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.88	0.7	1.100	6
Wetted Width (m):	0.88	0.7	1.100	6
Bankfull Depth (m):	0.23	0.2	0.3	3

	Avg	Min	Max	#
Gradient %:	1.25	1	2	4
Pool Depth (m):	0.23	0.170	0.280	2

Temp (C): 7 pH: 7.6 Conductivity: 20

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Fines D95 (cm): 4.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐
Subdominant: Gravels D (cm): 1.00 Braid ☐

Channel Pattern: Irregular, Wandering Islands: None
Coupling: Decoupled
Confinement: Unconfined
Morphology: RP Riffle Pool

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover: Abundant
LWD: Few
LWD Dist: Evenly Distributed

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	T	N	D	T	S	N
Location: P/S/O:	☑☐☐	☑☐☐	☐☐☐	☑☐☐	☑☐☐	☑☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Undercut Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure
Left Bank: Shape: Undercut Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ 41-70%
Right Bank: Rip.Veg: Shrubs Stage: Not Applicable
Left Bank: Rip.Veg: Stage: Not Applicable Instream Veg: None ☑ Algae ☐ Moss ☐ Vascular ☐

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
49	EF	1	100	177 sec	800	NFC	0		

Roll# 4, Frame# 7, CD# 1, Image#68, Direction: Upstream, Scale/Comment:cam bag
Roll# 4, Frame# 8, CD# 1, Image#69, Direction: Downstream, Scale/Comment:cam bag
sit = UTM. Rearing Habitat - potentially available in CB mainly. Spawning Habitat - none - fines. Overwintering Habitat - none - too shallow. Other - habitat isolated above FSB obstruction

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.060	60712

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.060 **ILP #:** 60712

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.691442.6053932 **Sample Type:** Biased

Length (km): .17 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 4.1 **Confinement:** Frequently Confin **Order:** 1 **Open water:**

US Elev (m): 1207 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 50 Field UTM 9.691519.6053794 Agency: C016 Crew: MJ/SR Date: 2002/07/09

Site Length (m): 100 GIS UTM 10.303905.6053987 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

Temp (C): pH: Conductivity:

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐

Subdominant: D (cm): Braid ☐

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

NCD - no fluvium, no banks, not a creek. site = UTM. Other - No fish habitat

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach # 1.0 | ILP Map # | ILP #

Watershed Code: 480-802100-64500-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 480-802100-64500-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** **ILP #:**

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.691231.6053546 **Sample Type:** Biased
Length (km): .32 **Coupling:** **Magnitude:** **BGC Zone:**
Gradient (%): 2.5 **Confinement:** Unconfined **Order:** 2 **Open water:**
US Elev (m): 1203 **Islands:** **Riparian Vegetation:**
Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 51 Field UTM 9.691475.6053733 Agency: C016 Crew: MJ/SR Date: 2002/07/09
Site Length (m): 300 GIS UTM 10.303865.6053902 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐
Dewatered: ☐ Tribs.: ☐
Stage: Low ☐ Med ☑ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.90	0.300	1.8	6
Wetted Width (m):	0.65	0.300	1.100	6
Bankfull Depth (m):	0.30	0.3	0.3	3

	Avg	Min	Max	#
Gradient %:	3.50	3	4	4
Pool Depth (m):	0.21	0.180	0.230	3

Temp (C): 8 pH: 7.6 Conductivity: 40
Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Fines D95 (cm): 0.10 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐
Subdominant: Not Applicable D (cm): 0.10
Channel Pattern: Sinuous Islands: None
Coupling: Decoupled
Confinement: Unconfined
Morphology: RP Riffle Pool

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☑	☐	☐	☐	☐	☐	☐

	C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover: Abundant
LWD: None
LWD Dist: Not Applicable

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	N	N	S	T	D	T
Location: P/S/O:	☑☐☐	☐☐☐	☐☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐

FSZ: ☐

Right Bank: Shape: V - shape Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure
Left Bank: Shape: V - shape Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ 71-90%
Right Bank: Rip.Veg: Shrubs Stage: Not Applicable
Left Bank: Rip.Veg: Stage: Not Applicable Instream Veg: None ☐ Algae ☑ Moss ☐ Vascular ☑

FEATURES

NID Map	NID	Type	Hgt	Method	Lg	Method	Photo				UTM (Z/E/N)	Method
093L.060	30512	BD	2.0	AL	60	GE	R:	3	F:	23	9.691401.6053706	GIS
Comments:	2nd barrier (30m u/s) - temporary											
NID Map	NID	Type	Hgt	Method	Lg	Method	Photo				UTM (Z/E/N)	Method
093L.060	30511	BD	1.0	AL	40	GE	R:	3	F:	22	9.691440.6053711	GIS
Comments:	temporary barrier to fish											

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
51	EF	1	300	348 sec	700	CT	7	48	75

Roll# 3, Frame# 22, CD# 1, Image#58, Direction: Upstream, Scale/Comment:tape - BD in features
Roll# 3, Frame# 23, CD# 1, Image#59, Direction: Across, Scale/Comment:no scale - 2nd BD in features
Roll# 3, Frame# 24, CD# 1, Image#60, Direction: Upstream, Scale/Comment:cam bag - channel in W/meadow
Roll# 3, Frame# 25, CD# 1, Image#61, Direction: Upstream, Scale/Comment:cam bag - channel near Pierre C.
if BD's breached, creek passable to lake u/s in R.3. creek provides good rearing opportunity near Pierre C., cobbles/gravels in substrate, used by CT to 1st BD obstruction. channel wider and confined near Pierre C. site = UTM = mouth. Spawning Habitat - none - fines. Overwintering Habitat - none - only in beaver ponds. Rearing Habitat - poor - incised channel in meadow/W with fast flow

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach # ILP Map # ILP #

Watershed Code: 480-802100-66400-00000-0000-0000-000-000-000-000-000-000 8.0

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 480-802100-66400-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** **ILP #:**

REACH

Reach #: 8.0 **UTM(Zone/East/North):** 9.687000.6050612 **Sample Type:** Biased

Length (km): .83 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 1.1 **Confinement:** Occasionally Con **Order:** 2 **Open water:**

US Elev (m): 1260 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 52 Field UTM 9.687324.6050827 Agency: C016 Crew: MJ/SR Date: 2002/07/26

Site Length (m): 100 GIS UTM 10.299479.6051391 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☑ High ☐

	Avg	Min	Max	#
Channel Width (m):	2.13	1.700	2.700	6
Wetted Width (m):	2.13	1.700	2.700	6
Bankfull Depth (m):	0.73	0.5	0.9	3

	Avg	Min	Max	#
Gradient %:	0.50	0	1	4
Pool Depth (m):	0.67	0.08	1.01	4

Temp (C): 15 pH: 8.3 Conductivity: 40

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Cobble D95 (cm): 20.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: Gravels D (cm): 1.00

Channel Pattern: Irregular Meanders Islands: Irregular

Coupling: Decoupled

Confinement: Occasionally Confine

Morphology: RP Riffle Pool

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☑	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☑	☐	☐	☐	☐	☐	☐

COVER

Total Cover: Abundant

LWD: None

LWD Dist: Not Applicable

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	N	T	S	D	T	T
Location: P/S/O:	☑☐☐	☐☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐

FSZ: ☐

Right Bank: Shape: Undercut Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Undercut Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ 1-20%

Right Bank: Rip.Veg: Shrubs Stage: Not Applicable

Left Bank: Rip.Veg: Stage: Not Applicable Instream Veg: None ☐ Algae ☑ Moss ☐ Vascular ☑

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
52	EF	1	100	192 sec	700	CT	2	92	207

Roll# 7, Frame# 24, CD# 2, Image#145, Direction: Upstream, Scale/Comment:MJ
Roll# 7, Frame# 25, CD# 2, Image#146, Direction: Downstream, Scale/Comment:dog
flows through meadow in deeply incised channel. site = UTM. Spawning Habitat - no small gravels observed. Rearing Habitat - excellent in abundant cover. Overwintering Habitat - excellent in deep and long pools, good flow

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach # 10.0 | ILP Map # | ILP #

Watershed Code: 480-802100-66400-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 480-802100-66400-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** **ILP #:**

REACH

Reach #: 10.0 **UTM(Zone/East/North):** 9.685820.6049985 **Sample Type:** Biased

Length (km): .53 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 2.3 **Confinement:** Occasionally Con **Order:** 2 **Open water:**

US Elev (m): 1272 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 53 Field UTM 9.686222.6050297 Agency: C016 Crew: SR/MJ Date: 2002/07/25

Site Length (m): 200 GIS UTM 10.298336.6050956 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☑ High ☐

	Avg	Min	Max	#
Channel Width (m):	1.25	0.9	1.700	6
Wetted Width (m):	1.25	0.9	1.700	6
Bankfull Depth (m):	0.37	0.3	0.4	3

	Avg	Min	Max	#
Gradient %:	3.38	0.5	5	4
Pool Depth (m):	0.21	0.16	0.280	5

Temp (C): 19 pH: 8.2 Conductivity: 50

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Cobble D95 (cm): 14.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: Fines D (cm): 0.50

Channel Pattern: Irregular, Wandering Islands: None

Coupling: Decoupled

Confinement: Occasionally Confine

Morphology: CP Cascade Pool

DISTURBANCE INDICATORS: O1 ☐ B1 ☐ B2 ☐ B3 ☐ D1 ☐ D2 ☐ D3 ☐

C1 ☐ C2 ☐ C3 ☐ C4 ☐ C5 ☐ S1 ☐ S2 ☐ S3 ☐ S4 ☐ S5 ☐

COVER

Total Cover: Moderate

LWD: None

LWD Dist: Not Applicable

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	N	N	T	S	S	D	N
Location: P/S/O:	☐☐☐	☐☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Undercut Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Undercut Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ 1-20%

Right Bank: Rip.Veg: Shrubs Stage: Not Applicable

Left Bank: Rip.Veg: Stage: Not Applicable Instream Veg: None ☑ Algae ☐ Moss ☐ Vascular ☐

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
53	EF	1	200	348 sec	700	CT	10	69	89

Roll# 7, Frame# 16, CD# 2, Image#137, Direction: Upstream, Scale/Comment:cam bag - forested area
Roll# 7, Frame# 17, CD# 2, Image#138, Direction: Downstream, Scale/Comment:cam bag - shrubby area
channel width occasionally opens up to ~2m wide run/pool over organics, also 5m wide open water wetland type flow (R.11) but channel width < 1.5m. numerous CT observed in lake and inlet area. site = UTM. forested area - cobble/fines, open area - shrubby, fines/organics. Overwintering Habitat - poor - no deep enough pools. Spawning Habitat - good in lake area (100m), then poor, lacking gravels. Rearing Habitat - mod - plenty of overstream vegetation cover, but pretty shallow

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach # ILP Map # ILP #

Watershed Code: 480-802100-66400-00000-0000-0000-000-000-000-000-000-000 12.0

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 480-802100-66400-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** **ILP #:**

REACH

Reach #: 12.0 **UTM(Zone/East/North):** 9.685243.6049728 **Sample Type:** Biased

Length (km): .46 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 4.6 **Confinement:** Frequently Confin **Order:** 2 **Open water:**

US Elev (m): 1295 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 54 Field UTM 9.685714.6049842 Agency: C016 Crew: SR/MJ Date: 2002/07/25

Site Length (m): 100 GIS UTM 10.297758.6050516 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

Temp (C): pH: Conductivity:

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐

Subdominant: D (cm): Braid ☐

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Roll# 7, Frame# 18, CD# 2, Image#139, Direction: Across, Scale/Comment:cam bag
"stream" is discontinuous, disconnected standing water with no fluvium or continuous channel bed. watershed atlas mainstem = wrong, this reach is actually trib to mainstem. CT observed in wetland R.11 - presence extended. site = UTM = start of reach.
Other - none

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.060	60714

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.060 **ILP #:** 60714

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.690350.6053415 **Sample Type:** Biased

Length (km): .09 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 2.2 **Confinement:** Unconfined **Order:** 1 **Open water:**

US Elev (m): 1211 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 55 Field UTM 9.690391.6053453 Agency: C016 Crew: MJ/SR Date: 2002/07/09

Site Length (m): 200 GIS UTM 10.302719.6053747 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	40.00	40	40	1
Pool Depth (m):	0.00	0	0	0

Temp (C): pH: Conductivity: Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐

Subdominant: D (cm): Braid ☐

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Roll# 3, Frame# 18, CD# 1, Image#54, Direction: Downstream, Scale/Comment:no scale
Roll# 3, Frame# 19, CD# 1, Image#55, Direction: Upstream, Scale/Comment:cam bag
seasonal (snowmelt) drainage from meadow down to W adjacent to - 802100-66400 at 40% gradient, channelized for 40m only within W. site = UTM. Other - No fish habitat

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
6.1	93L.060	60715

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.060 **ILP #:** 60715

REACH

Reach #: 6.1 **UTM(Zone/East/North):** 9.686340.6052682 **Sample Type:** Biased

Length (km): .42 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 0.5 **Confinement:** Unconfined **Order:** 2 **Open water:**

US Elev (m): 1293 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 56 Field UTM 9.686645.6052831 Agency: C016 Crew: MJ/SR Date: 2002/07/26

Site Length (m): 100 GIS UTM 10.298974.6053445 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

Temp (C): pH: Conductivity:

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐

Subdominant: D (cm): Braid ☐

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
56	EF	1	50	109 sec	700	LKC	16	38	47

site = UTM. completed site to document LKC presence (only) in this reach, surveyed in 1999

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
7.0	93L.060	60715

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.060 **ILP #:** 60715

REACH

Reach #: 7.0 **UTM(Zone/East/North):** 9.686142.6052947 **Sample Type:** Biased

Length (km): .52 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 0.4 **Confinement:** Unconfined **Order:** 2 **Open water:**

US Elev (m): 1295 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 57 Field UTM 9.686368.6052661 Agency: C016 Crew: MJ/SR Date: 2002/07/26

Site Length (m): 150 GIS UTM 10.298679.6053334 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Temp (C): pH: Conductivity:

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐

Subdominant: D (cm): Braid ☐

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Roll# 8, Frame# 16, CD# 2, Image#162, Direction: Upstream, Scale/Comment:cam bag
site = UTM. no trace of any channel, percolates through, no fluvium, squishy crap in wetland. drains W u/s, no channel, just seeps through. Other - No fish habitat

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.060	60716

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.060 **ILP #:** 60716

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.689873.6054027 **Sample Type:** Biased

Length (km): 1.05 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 9.2 **Confinement:** Frequently Confin **Order:** 2 **Open water:**

US Elev (m): 1318 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 58 Field UTM 9.689335.6053183 Agency: C016 Crew: SR/MJ Date: 2002/07/29

Site Length (m): 150 GIS UTM 10.301697.6053563 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

Temp (C): pH: Conductivity:

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: D (cm):

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
58	EF	1	150	109 sec	700	NFC	0		

Roll# 9, Frame# 20, CD# 2, Image#191, Direction: Downstream, Scale/Comment:cam bag
Roll# 9, Frame# 21, CD# 2, Image#192, Direction: Upstream, Scale/Comment:cam bag
site = UTM = meadow near mouth. drainage has flow and frequent channelized sections (on gravels), but common underground flow, both percolation and continuous, no accessible fish habitat. channelized sections to shallow with no pools or CT habitat anyway, no overwinter u/s. Other - none

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.060	60718

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.060 **ILP #:** 60718

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.688600.6053019 **Sample Type:** Biased

Length (km): .12 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 15.8 **Confinement:** Confined **Order:** 2 **Open water:**

US Elev (m): 1259 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 59 Field UTM 9.688674.6052924 Agency: C016 Crew: SR/MJ Date: 2002/07/29

Site Length (m): 150 GIS UTM10.301004.6053378 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Temp (C): pH: Conductivity:

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐

Subdominant: D (cm): Braid ☐

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Roll# 9, Frame# 23, CD# 2, Image#194, Direction: Downstream, Scale/Comment:SR
site = "mouth". drainage is just a shrubby corridor with no evidence of channel or flow, just seepage at 30% gradient down gully wall to parent stream. no fish habitat or potential, or passage. Other - none

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.060	60721

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.060 **ILP #:** 60721

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.688473.6052547 **Sample Type:** Biased

Length (km): .20 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 1.0 **Confinement:** Occasionally Con **Order:** 1 **Open water:**

US Elev (m): 1252 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 60 Field UTM 9.688507.6052706 Agency: C016 Crew: SR/MJ Date: 2002/07/29

Site Length (m): 100 GIS UTM 10.300818.6053162 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

Temp (C): pH: Conductivity:

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐

Subdominant: D (cm): Braid ☐

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Roll# 9, Frame# 22, CD# 2, Image#193, Direction: Upstream, Scale/Comment:SR
mapped stream is just an occasionally moist shrubby corridor with no channel or flowing water present, no fish habitat present.
site = UTM = 30 m u/s from "mouth". Other - none

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.060	60722

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.060 **ILP #:** 60722

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.687715.6052890 **Sample Type:** Biased

Length (km): .21 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 9.1 **Confinement:** Frequently Confin **Order:** 1 **Open water:**

US Elev (m): 1288 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 61 Field UTM 9.687830.6053005 Agency: C016 Crew: MJ/SR Date: 2002/07/26

Site Length (m): 100 GIS UTM 10.300187.6053509 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

Temp (C): pH: Conductivity:

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐

Subdominant: D (cm): Braid ☐

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Roll# 8, Frame# 20, CD# 2, Image#166, Direction: Across, Scale/Comment:no scale
seepage draining squishy and brushy meadow, no channel, no fluvium. site = UTM. Other - No fish habitat

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.060	60723

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.060 **ILP #:** 60723

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.687392.6053185 **Sample Type:** Biased

Length (km): .25 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 5.2 **Confinement:** Frequently Confin **Order:** 1 **Open water:**

US Elev (m): 1287 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 62 Field UTM 9.687588.6053152 Agency: C016 Crew: MJ/SR Date: 2002/07/26

Site Length (m): 200 GIS UTM 10.299932.6053675 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Temp (C): pH: Conductivity:

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐

Subdominant: D (cm): Braid ☐

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Roll# 8, Frame# 19, CD# 2, Image#165, Direction: Upstream, Scale/Comment:notebook
squishy valley from HW pond, no channel, no fluvium, not a stream. site = UTM. Other - No fish habitat

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.060	60724

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.060 **ILP #:** 60724

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.687015.6052781 **Sample Type:** Biased

Length (km): .12 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 0.8 **Confinement:** Unconfined **Order:** 2 **Open water:**

US Elev (m): 1292 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 63 Field UTM 9.687008.6052818 Agency: C016 Crew: MJ/SR Date: 2002/07/26

Site Length (m): 150 GIS UTM 10.299347.6053401 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Temp (C): pH: Conductivity:

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐

Subdominant: D (cm): Braid ☐

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Roll# 8, Frame# 15, CD# 2, Image#161, Direction: Upstream, Scale/Comment:cam bag
site = UTM. seepage draining couple of W u/s, discontinuous channel, water percolates through sedges, not a stream. Other - No fish habitat

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
3.0	93L.060	60727

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.060 **ILP #:** 60727

REACH

Reach #: 3.0 **UTM(Zone/East/North):** 9.686658.6053354 **Sample Type:** Biased

Length (km): .23 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 3.5 **Confinement:** Frequently Confin **Order:** 2 **Open water:**

US Elev (m): 1299 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 64 *Field UTM* 9.686538.6053348 *Agency:* C016 *Crew:* MJ/SR *Date:* 2002/07/26

Site Length (m): 100 GIS UTM 10.298911.6053970 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☑

Dewatered: ☐ Tribs.: ☐

Stage: Low ☑ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.97	0.200	1.600	6
Wetted Width (m):	0.00	0	0	6
Bankfull Depth (m):	0.10	0.1	0.1	3

	Avg	Min	Max	#
Gradient %:	1.00	0	2	2
Pool Depth (m):	0.00	0	0	1

Temp (C): pH: Conductivity:

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

MORPHOLOGY

Bed Material: Dominant: Fines D95 (cm): 6.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: Cobble D (cm): 1.00

Channel Pattern: Sinuous Islands: None

Coupling: Decoupled

Confinement: Unconfined

Morphology: RP Riffle Pool

DISTURBANCE INDICATORS: O1 ☐ B1 ☐ B2 ☐ B3 ☐ D1 ☐ D2 ☐ D3 ☐

C1 ☐ C2 ☐ C3 ☐ C4 ☐ C5 ☐ S1 ☐ S2 ☐ S3 ☐ S4 ☐ S5 ☐

COVER

Total Cover: None

LWD: None

LWD Dist: Not Applicable

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	N	N	N	N	N	N	N
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Sloping (g Texture: Fines ☑ Gravel ☑ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Sloping (g Texture: Fines ☑ Gravel ☑ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ 41-70%

Right Bank: Rip.Veg: Shrubs Stage: Not Applicable

Left Bank: Rip.Veg: Stage: Not Applicable Instream Veg: None ☑ Algae ☐ Moss ☐ Vascular ☐

Roll# 8, Frame# 17, CD# 2, Image#163, Direction: Upstream, Scale/Comment:cam bag
Roll# 8, Frame# 18, CD# 2, Image#164, Direction: Downstream, Scale/Comment:cam bag
flows through shrubby valley with many beaver ponds filled with algae and stagnant water, just below the pond (R.2), dry and nicely channelized in forested section near mouth. site = UTM. seasonal creek with water only during runoff, vegetated channel, loosing stream characteristics, no R, S, O habitat. no continuity of channel observed above lake. Other - No fish habitat - stream accessible and passable to the pond in R2, but lake/pond seems too shallow to provide suitable overwinter habitat or rearing in summer - exposed, shallow - high water temp. in summer

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.060	60730

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.060 **ILP #:** 60730

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.689865.6052700 **Sample Type:** Biased

Length (km): .28 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 9.3 **Confinement:** Frequently Confin **Order:** 1 **Open water:**

US Elev (m): 1242 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 65 Field UTM 9.689717.6052863 Agency: C016 Crew: MJ/SR Date: 2002/07/09

Site Length (m): 100 GIS UTM 10.302031.6053247 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Temp (C): pH: Conductivity: Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: D (cm):

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS: O1 ☐ B1 ☐ B2 ☐ B3 ☐ D1 ☐ D2 ☐ D3 ☐

C1 ☐ C2 ☐ C3 ☐ C4 ☐ C5 ☐ S1 ☐ S2 ☐ S3 ☐ S4 ☐ S5 ☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Roll# 3, Frame# 17, CD# 1, Image#53, Direction: Upstream, Scale/Comment:cam bag
site = UTM = "mouth". seepage - no fluvium, no banks - drains moist meadow u/s and discharges over 10% slope at parent stream, densely vegetated by willows. Other - No fish habitat

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach # ILP Map # ILP #

Watershed Code: 480-802100-66400-29800-0000-0000-000-000-000-000-000-000 1.0

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 480-802100-66400-29800-0000-0000-000-000-000-000-000-000 **ILP Map #:** **ILP #:**

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.689716.6052242 **Sample Type:** Biased

Length (km): .66 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 6.1 **Confinement:** Confined **Order:** 3 **Open water:**

US Elev (m): 1258 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 66 Field UTM 9.689568.6052829 Agency: C016 Crew: MJ/SR Date: 2002/07/09

Site Length (m): 200 GIS UTM 10.301944.6053181 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☑ High ☐

	Avg	Min	Max	#
Channel Width (m):	2.08	1.8	2.400	6
Wetted Width (m):	1.98	1.8	2.3	6
Bankfull Depth (m):	0.43	0.4	0.5	3

	Avg	Min	Max	#
Gradient %:	6.50	5	8	4
Pool Depth (m):	0.32	0.270	0.430	5

Temp (C): 6 pH: 7.6 Conductivity: 20

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Cobble D95 (cm): 60.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐

Subdominant: Boulders D (cm): 5.00 Braid ☐

Channel Pattern: Sinuous Islands: None

Coupling: Partially Coupled

Confinement: Frequently Confined

Morphology: CPB Cascade Pool Boul

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

	C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover: Abundant

LWD: Few

LWD Dist: Evenly Distributed

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	N	T	S	T	D	T	N
Location: P/S/O:	☐☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: V - shape Texture: Fines ☑ Gravel ☑ Cobble ☐ Boulder ☑ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: V - shape Texture: Fines ☑ Gravel ☑ Cobble ☐ Boulder ☑ Rock ☐ Manmade ☐ 1-20%

Right Bank: Rip.Veg: Coniferous Stage: Mature forest

Left Bank: Rip.Veg: Stage: Mature forest Instream Veg: None ☑ Algae ☐ Moss ☐ Vascular ☐

FEATURES

NID Map	NID	Type	Hgt	Method	Lg	Method	Photo				UTM (Z/E/N)	Method
093L060	30661	BMA		AL		GE	R:		F:		9.689630.6052810	GIS

Comments: real mouth at site UTM

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
66	EF	1	200	169 sec	800	CT	7	66	89

Roll# 3, Frame# 15, CD# 1, Image#51, Direction: Upstream, Scale/Comment:cam bag
Roll# 3, Frame# 16, CD# 1, Image#52, Direction: Downstream, Scale/Comment:cam bag
site = UTM. Spawning Habitat - fair - opportunistic only in small and scattered gravel patches - likely in parent stream. Overwintering Habitat - fair - only few deeper pools with slower flow - likely move d/s to parent. Rearing Habitat - excellent in abundant P/B type cover

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach # ILP Map # ILP #

Watershed Code: 480-802100-66400-29800-0000-0000-000-000-000-000-000-000 2.0

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 480-802100-66400-29800-0000-0000-000-000-000-000-000-000 **ILP Map #:** **ILP #:**

REACH

Reach #: 2.0 **UTM(Zone/East/North):** 9.689450.6051919 **Sample Type:** Biased

Length (km): .68 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 0.6 **Confinement:** Unconfined **Order:** 3 **Open water:**

US Elev (m): 1262 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 67 Field UTM 9.689584.6051796 Agency: C016 Crew: MJ/SR Date: 2002/07/24

Site Length (m): 100 GIS UTM 10.301798.6052172 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐

Dewatered: ☐ Tribs.: ☑

Stage: Low ☐ Med ☑ High ☐

	Avg	Min	Max	#
Channel Width (m):	1.77	1.3	2.700	6
Wetted Width (m):	1.67	1.200	2.700	6
Bankfull Depth (m):	0.43	0.4	0.5	3

	Avg	Min	Max	#
Gradient %:	1.25	0	2	4
Pool Depth (m):	0.60	0.48	0.76	4

Temp (C): 9 pH: 8.3 Conductivity: 30

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Gravels D95 (cm): 60.00 Bars: Non ☐ Side ☑ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: Cobble D (cm): 2.00

Channel Pattern: Irregular, Wandering Islands: Occasiona

Coupling: Decoupled

Confinement: Unconfined

Morphology: RP Riffle Pool

DISTURBANCE INDICATORS

O1	B1	B2	B3	D1	D2	D3
☐	☑	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover: Abundant

LWD: Few

LWD Dist: Evenly Distributed

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	T	T	S	D	T	T
Location: P/S/O:	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐

FSZ: ☐

Right Bank: Shape: Undercut Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Undercut Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ 21-40%

Right Bank: Rip.Veg: Shrubs Stage: Not Applicable

Left Bank: Rip.Veg: Stage: Not Applicable Instream Veg: None ☐ Algae ☐ Moss ☑ Vascular ☐

FEATURES

NID Map	NID	Type	Hgt	Method	Lg	Method	Photo	UTM (Z/E/N)	Method
093L060	30671	TRB		AL		GE	R: F:	9.689457.6051616	GIS

Comments: unmapped LB trib

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
67	EF	1	100	48 sec	700	CT	4	76	94

Roll# 6, Frame# 1, CD# 1, Image#97, Direction: Upstream, Scale/Comment:cam bag - typical channel
Roll# 6, Frame# 2, CD# 1, Image#98, Direction: Downstream, Scale/Comment:dog - typical pool
flows through subalpine meadow sparsely forested. site = UTM. Rearing Habitat - excellent in P/cascade-boulder type cover. Overwintering Habitat - excellent - deep and large pools common every 15m on average. Spawning Habitat - excellent - long sections with pure pea size gravels (30-40m) and excellent holding (deep cutbanks)

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach # ILP Map # ILP #

Watershed Code: 480-802100-66400-29800-0000-0000-000-000-000-000-000-000 3.0

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 480-802100-66400-29800-0000-0000-000-000-000-000-000-000 **ILP Map #:** **ILP #:**

REACH

Reach #: 3.0 **UTM(Zone/East/North):** 9.689485.6051331 **Sample Type:** Biased

Length (km): .30 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 7.3 **Confinement:** Confined **Order:** 3 **Open water:**

US Elev (m): 1284 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 68 Field UTM 9.689466.6051561 Agency: C016 Crew: MJ/SR Date: 2002/07/24

Site Length (m): 100 GIS UTM 10.301668.6051934 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☑ High ☐

	Avg	Min	Max	#
Channel Width (m):	1.45	1.200	1.700	6
Wetted Width (m):	1.07	0.800	1.5	6
Bankfull Depth (m):	0.37	0.3	0.4	3

	Avg	Min	Max	#
Gradient %:	4.50	3	6	4
Pool Depth (m):	0.14	0.11	0.170	2

Temp (C): 9 pH: 8.3 Conductivity: 30

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Cobble D95 (cm): 50.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: Boulders D (cm): 6.00

Channel Pattern: Sinuous Islands: None

Coupling: Coupled

Confinement: Frequently Confined

Morphology: CP Cascade Pool

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☑	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover: Moderate

LWD: None

LWD Dist: Not Applicable

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	N	N	D	S	S	T	T
Location: P/S/O:	☐☐☐	☐☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐

FSZ: ☐

Right Bank: Shape: V - shape Texture: Fines ☑ Gravel ☐ Cobble ☑ Boulder ☑ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: V - shape Texture: Fines ☑ Gravel ☐ Cobble ☑ Boulder ☑ Rock ☐ Manmade ☐ 21-40%

Right Bank: Rip.Veg: Shrubs Stage: Not Applicable

Left Bank: Rip.Veg: Stage: Not Applicable Instream Veg: None ☐ Algae ☐ Moss ☑ Vascular ☐

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
68	EF	1	100	209 sec	700	CT	2	87	91

Roll# 6, Frame# 3, CD# 1, Image#99, Direction: Upstream, Scale/Comment:cam bag
Roll# 6, Frame# 4, CD# 1, Image#100, Direction: Downstream, Scale/Comment:cam bag
flows through 10-15m wide gully sparsely forested by firs and spruces. site = UTM. Rearing Habitat - F-M - mainly in B/P sections. Spawning Habitat - none - large and semi angular substrate. Overwintering Habitat - none - too shallow. Other - overall fair - at low flow much better cover (B and large cobble), fast during runoff, cover may not be sufficient

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach # ILP Map # ILP #

Watershed Code: 480-802100-66400-29800-0000-0000-000-000-000-000-000-000 6.0

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 480-802100-66400-29800-0000-0000-000-000-000-000-000-000 **ILP Map #:** **ILP #:**

REACH

Reach #: 6.0 **UTM(Zone/East/North):** 9.689644.6050400 **Sample Type:** Biased

Length (km): .45 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 3.6 **Confinement:** Unconfined **Order:** 3 **Open water:**

US Elev (m): 1315 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 69 Field UTM 9.689680.6050480 Agency: C016 Crew: MJ/SR Date: 2002/07/24

Site Length (m): 100 GIS UTM 10.301815.6050827 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☑ High ☐

	Avg	Min	Max	#
Channel Width (m):	1.38	1.100	1.8	6
Wetted Width (m):	1.32	1.100	1.600	6
Bankfull Depth (m):	0.53	0.5	0.6	3

	Avg	Min	Max	#
Gradient %:	1.25	1	2	4
Pool Depth (m):	0.49	0.330	0.63	4

Temp (C): 9 pH: 8.2 Conductivity: 20

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Gravels D95 (cm): 10.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: Cobble D (cm): 2.00

Channel Pattern: Irregular, Wandering Islands: None

Coupling: Decoupled

Confinement: Unconfined

Morphology: RP Riffle Pool

DISTURBANCE INDICATORS: O1 ☐ B1 ☐ B2 ☐ B3 ☐ D1 ☐ D2 ☐ D3 ☐

C1 ☐ C2 ☐ C3 ☐ C4 ☐ C5 ☐ S1 ☐ S2 ☐ S3 ☐ S4 ☐ S5 ☐

COVER

Total Cover: Abundant

LWD: Few

LWD Dist: Evenly Distributed

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	T	N	S	D	T	T
Location: P/S/O:	☑ ☐ ☐	☑ ☐ ☐	☐ ☐ ☐	☑ ☐ ☐	☑ ☐ ☐	☑ ☐ ☐	☑ ☐ ☐

FSZ: ☐

Right Bank: Shape: Undercut Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Undercut Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ 1-20%

Right Bank: Rip.Veg: Shrubs Stage: Not Applicable

Left Bank: Rip.Veg: Stage: Not Applicable Instream Veg: None ☐ Algae ☐ Moss ☑ Vascular ☐

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
69	EF	1	100	149 sec	800	CT	1	133	133

Roll# 6, Frame# 18, CD# 2, Image#114, Direction: Upstream, Scale/Comment:cam bag
Roll# 6, Frame# 19, CD# 2, Image#115, Direction: Downstream, Scale/Comment:cam bag
site = UTM. flows through wide meadow in incised channel, forested in clumps. Overwintering Habitat - good - many deep pools, likely sufficient flow throughout the winter not to freeze. Spawning Habitat - good - many pure gravel sections with good holding areas. Rearing Habitat - excellent in abundant P/CB type cover

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach # ILP Map # ILP #

Watershed Code: 480-802100-66400-29800-0000-0000-000-000-000-000-000-000 8.0

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 480-802100-66400-29800-0000-0000-000-000-000-000-000-000 **ILP Map #:** **ILP #:**

REACH

Reach #: 8.0 **UTM(Zone/East/North):** 9.689202.6049897 **Sample Type:** Biased

Length (km): .29 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 4.1 **Confinement:** Unconfined **Order:** 2 **Open water:**

US Elev (m): 1337 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 70 Field UTM 9.689285.6050136 Agency: C016 Crew: MJ/SR Date: 2002/07/24

Site Length (m): 150 GIS UTM 10.301365.6050511 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☑ High ☐

	Avg	Min	Max	#
Channel Width (m):	1.00	0.800	1.200	6
Wetted Width (m):	0.92	0.600	1.200	6
Bankfull Depth (m):	0.57	0.5	0.6	3

	Avg	Min	Max	#
Gradient %:	0.25	0	1	4
Pool Depth (m):	0.36	0.330	0.39	3

Temp (C): 10 pH: 8.3 Conductivity: 30

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Fines D95 (cm): 1.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐

Subdominant: Gravels D (cm): 0.50 Braid ☐

Channel Pattern: Irregular, Wandering Islands: None

Coupling: Decoupled

Confinement: Unconfined

Morphology: LC Large Channel

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover: Abundant

LWD: None

LWD Dist: Not Applicable

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	N	N	D	S	T	N
Location: P/S/O:	☑☐☐	☐☐☐	☐☐☐	☑☐☐	☑☐☐	☑☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Undercut Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Undercut Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ 1-20%

Right Bank: Rip.Veg: Wetland Stage: Not Applicable

Left Bank: Rip.Veg: Stage: Not Applicable Instream Veg: None ☑ Algae ☐ Moss ☐ Vascular ☐

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
70	EF	1				NFC	0		

Roll# 6, Frame# 15, CD# 2, Image#111, Direction: Upstream, Scale/Comment:MJ
Roll# 6, Frame# 16, CD# 2, Image#112, Direction: Downstream, Scale/Comment:cam bag
flows through deeply incised channel, frequent subflow (~20%). site = UTM. Overwintering Habitat - fair - too slow flow?. Rearing Habitat - overall F - M in some deep sections. Spawning Habitat - none - ~90% of fines

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach # ILP Map # ILP #

Watershed Code: 480-802100-66400-29800-0000-0000-000-000-000-000-000-000 9.0

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 480-802100-66400-29800-0000-0000-000-000-000-000-000-000 **ILP Map #:** **ILP #:**

REACH

Reach #: 9.0 **UTM(Zone/East/North):** 9.689204.6049515 **Sample Type:** Biased

Length (km): .43 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 6.5 **Confinement:** Confined **Order:** 2 **Open water:**

US Elev (m): 1365 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 71 Field UTM 9.689219.6049908 Agency: C016 Crew: MJ/SR Date: 2002/07/24

Site Length (m): 150 GIS UTM 10.301289.6050313 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☑

Dewatered: ☐ Tribs.: ☐

Stage: Low ☑ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	1.25	1	1.5	6
Wetted Width (m):	0.55	0	1.3	6
Bankfull Depth (m):	0.13	0.1	0.2	3

	Avg	Min	Max	#
Gradient %:	4.75	3	7	4
Pool Depth (m):	0.00	0	0	3

Temp (C): 10 pH: 8.3 Conductivity: 20

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Fines D95 (cm): 7.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: Gravels D (cm): 3.00

Channel Pattern: Sinuous Islands: None

Coupling: Coupled

Confinement: Frequently Confined

Morphology: CP Cascade Pool

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☑	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover: Trace

LWD: Few

LWD Dist: Evenly Distributed

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	D	T	N	S	N	T	T
Location: P/S/O:	☑☐☐	☑☐☐	☐☐☐	☑☐☐	☐☐☐	☑☐☐	☑☐☐

FSZ: ☐

Right Bank: Shape: Sloping (g Texture: Fines ☑ Gravel ☐ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: V - shape Texture: Fines ☑ Gravel ☐ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ 21-40%

Right Bank: Rip.Veg: Coniferous Stage: Mature forest

Left Bank: Rip.Veg: Stage: Mature forest Instream Veg: None ☐ Algae ☐ Moss ☑ Vascular ☐

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
71	EF	1	150	301 sec	800	NFC	0		

Roll# 6, Frame# 13, CD# 2, Image#109, Direction: Upstream, Scale/Comment:cambag
Roll# 6, Frame# 14, CD# 2, Image#110, Direction: Downstream, Scale/Comment:cambag
site = UTM. Overwintering Habitat - none - shallow, intermittent. Spawning Habitat - none - no substrate. Other - No fish habitat - small and shallow intermittent trickle, lack of good flow, full of organics, channel exposed

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.060	60731

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.060 **ILP #:** 60731

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.690130.6052034 **Sample Type:** Biased
Length (km): .54 **Coupling:** **Magnitude:** **BGC Zone:**
Gradient (%): 5.7 **Confinement:** Confined **Order:** 1 **Open water:**
US Elev (m): 1290 **Islands:** **Riparian Vegetation:**
Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 72 Field UTM 9.689686.6052126 Agency: C016 Crew: MJ/SR Date: 2002/07/24
Site Length (m): 100 GIS UTM 10.301961.6052464 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐
Dewatered: ☐ Tribs.: ☐
Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

Temp (C): pH: Conductivity:

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐
Subdominant: D (cm):

Channel Pattern: Islands:
Coupling:
Confinement:
Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:
LWD:
LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure
Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐
Right Bank: Rip.Veg: Stage:
Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Roll# 5, Frame# 22, CD# 1, Image#93, Direction: Upstream, Scale/Comment:cam bag
Roll# 5, Frame# 23, CD# 1, Image#94, Direction: Downstream, Scale/Comment:cam bag
seepage with disconnected mucky puddles, no fluvium, no channel, no banks. site = UTM. Other - No fish habitat

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.060	60732

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.060 **ILP #:** 60732

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.689927.6051685 **Sample Type:** Biased

Length (km): .43 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 7.9 **Confinement:** Confined **Order:** 1 **Open water:**

US Elev (m): 1294 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 73 Field UTM 9.689635.6051888 Agency: C016 Crew: MJ/SR Date: 2002/07/24

Site Length (m): 150 GIS UTM 10.301883.6052248 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	7.00	7	7	1
Pool Depth (m):	0.00	0	0	0

Temp (C): 9 pH: 8.0 Conductivity: 40

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: D (cm):

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
73	EF	1	10	20 sec	700	NFC	0		

Roll# 5, Frame# 24, CD# 1, Image#95, Direction: Upstream, Scale/Comment:cam bag - shows lack of continuous channel
Roll# 5, Frame# 25, CD# 1, Image#96, Direction: Downstream, Scale/Comment:cam bag - channelized section seepage, channelized but intermittent flow near mouth for 50 m, than discontinuous, dry sections, wet puddles and short (10-15m) channel, organic fines and cobbles, drains swamps u/s. site = UTM. Other - No fish habitat

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.060	60733

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.060 **ILP #:** 60733

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.689315.6051358 **Sample Type:** Biased

Length (km): .17 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 5.9 **Confinement:** Frequently Confin **Order:** 1 **Open water:**

US Elev (m): 1292 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 74 Field UTM 9.689480.6051390 Agency: C016 Crew: MJ/SR Date: 2002/07/24

Site Length (m): 100 GIS UTM 10.301664.6051737 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

Temp (C): pH: Conductivity:

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: D (cm):

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

FEATURES

NID Map	NID	Type	Hgt	Method	Lg	Method	Photo				UTM (Z/E/N)	Method
093L.060	30741	BMA		AL		GE	R:		F:		9.689477.6051357	GIS

Comments: end of mapped creek

Roll# 6, Frame# 5, CD# 2, Image#101, Direction: Upstream, Scale/Comment:cam bag
site = UTM. seepage - drains adjacent W to parent stream, no fluvium, no channel past 25m from mouth. drainage is not as mapped, ends past 35m u/s from mainstem. Other - No fish habitat

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach # ILP Map # ILP #

Watershed Code: 480-802100-66400-29800-6750-0000-000-000-000-000-000-000-000 1.0

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 480-802100-66400-29800-6750-0000-000-000-000-000-000-000-000 **ILP Map #:** **ILP #:**

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.689169.6050473 **Sample Type:** Biased

Length (km): .76 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 5.1 **Confinement:** Confined **Order:** 1 **Open water:**

US Elev (m): 1330 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 75 Field UTM 9.689611.6050940 Agency: C016 Crew: MJ/SR Date: 2002/07/24

Site Length (m): 700 GIS UTM 10.301763.6051314 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☑ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.98	0.600	1.5	6
Wetted Width (m):	0.88	0.600	1.200	6
Bankfull Depth (m):	0.17	0.1	0.2	3

	Avg	Min	Max	#
Gradient %:	4.00	3	5	4
Pool Depth (m):	0.53	0.39	0.63	3

Temp (C): 10 pH: 8.4 Conductivity: 50

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Cobble D95 (cm): 400.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: Gravels D (cm): 2.00

Channel Pattern: Sinuous Islands: None

Coupling: Coupled

Confinement: Confined

Morphology: RP Riffle Pool

DISTURBANCE INDICATORS: O1 ☐ B1 ☐ B2 ☐ B3 ☐ D1 ☐ D2 ☐ D3 ☐

C1 ☐ C2 ☐ C3 ☐ C4 ☐ C5 ☐ S1 ☐ S2 ☐ S3 ☐ S4 ☐ S5 ☐

COVER

Total Cover: Trace

LWD: Few

LWD Dist: Evenly Distributed

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	T	S	S	D	T	N
Location: P/S/O:	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: V - shape Texture: Fines ☑ Gravel ☐ Cobble ☑ Boulder ☑ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: V - shape Texture: Fines ☑ Gravel ☐ Cobble ☑ Boulder ☑ Rock ☐ Manmade ☐ 1-20%

Right Bank: Rip.Veg: Coniferous Stage: Mature forest

Left Bank: Rip.Veg: Stage: Mature forest Instream Veg: None ☐ Algae ☐ Moss ☑ Vascular ☐

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
75	EF	1	700	187 sec	600	CT	9	102	173

Roll# 6, Frame# 8, CD# 2, Image#104, Direction: Upstream, Scale/Comment:cam bag
Roll# 6, Frame# 9, CD# 2, Image#105, Direction: Downstream, Scale/Comment:cam bag
flows through v. narrow and steep wall gully. site = UTM = mouth. Rearing Habitat - F-M - overall shallow and tiny creek with some good pool and cutbank cover (sparse but inhabited by CT). Spawning Habitat - none - angular substrate. Overwintering Habitat - likely utilizes deep pools

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach # 2.0 | ILP Map # | ILP #

Watershed Code: 480-802100-66400-29800-6750-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 480-802100-66400-29800-6750-0000-000-000-000-000-000-000 **ILP Map #:** **ILP #:**

REACH

Reach #: 2.0 **UTM(Zone/East/North):** 9.688828.6050473 **Sample Type:** Biased
Length (km): .37 **Coupling:** **Magnitude:** **BGC Zone:**
Gradient (%): 0.8 **Confinement:** Unconfined **Order:** 1 **Open water:**
US Elev (m): 1333 **Islands:** **Riparian Vegetation:**
Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 76 Field UTM 9.689170.6050443 Agency: C016 Crew: MJ/SR Date: 2002/07/24
Site Length (m): 120 GIS UTM 10.301287.6050885 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐
Dewatered: ☐ Tribs.: ☐
Stage: Low ☑ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.72	0.200	1.600	6
Wetted Width (m):	0.68	0.200	1.5	6
Bankfull Depth (m):	0.13	0.1	0.2	3

	Avg	Min	Max	#
Gradient %:	0.33	0	1	3
Pool Depth (m):	0.61	0.58	0.65	2

Temp (C): 14 pH: 7.2 Conductivity: 50
Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Fines D95 (cm): 0.10 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐
Subdominant: Not Applicable D (cm): 0.10
Channel Pattern: Sinuous Islands: None
Coupling: Decoupled
Confinement: Unconfined
Morphology: LC Large Channel

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

	C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover: Trace
LWD: None
LWD Dist: Not Applicable

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	N	N	N	N	S		D
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☑☐☐	☐☐☐	☑☐☐

FSZ: ☐

Right Bank: Shape: Undercut Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure
Left Bank: Shape: Undercut Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ 0%
Right Bank: Rip.Veg: Wetland Stage: Not Applicable
Left Bank: Rip.Veg: Stage: Not Applicable Instream Veg: None ☐ Algae ☑ Moss ☐ Vascular ☑

FEATURES

NID Map	NID	Type	Hgt	Method	Lg	Method	Photo	UTM (Z/E/N)	Method
093L.060	30762	FSB		AL		GE	R: F:	9.689129.6050355	GIS

Comments: Headwaters of stream

NID Map	NID	Type	Hgt	Method	Lg	Method	Photo	UTM (Z/E/N)	Method
093L.060	30761	BMA		AL		GE	R: F:	9.689170.6050443	GIS

Comments: flows in eastern part of wetland

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
76	EF	1	120	163 sec	600	CT	2	95	162

Roll# 6, Frame# 10, CD# 2, Image#106, Direction: Upstream, Scale/Comment:dog - creek source - bog
Roll# 6, Frame# 11, CD# 2, Image#107, Direction: Downstream, Scale/Comment:cam bag
site = UTM. wider and deeper channel for ~20m near edge of W/forest, than small, shallow into wetland. stream mapped wrong, flows in eastern part of W than ends at HW. Overwintering Habitat - potentially in these two pools. Spawning Habitat - none. Other - poor fish habitat, wetland reach, fish present in two pools near reach boundary

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach # 1.0 | ILP Map # 93L.060 | ILP # 60734

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.060 **ILP #:** 60734

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.689828.6051011 **Sample Type:** Biased

Length (km): .19 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 5.3 **Confinement:** Unconfined **Order:** 1 **Open water:**

US Elev (m): 1301 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 77 Field UTM 9.689657.6051000 Agency: C016 Crew: MJ/SR Date: 2002/07/24

Site Length (m): 100 GIS UTM 10.301838.6051379 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☑

Dewatered: ☐ Tribs.: ☐

Stage: Low ☑ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.83	0.600	1.100	6
Wetted Width (m):	0.23	0	0.800	6
Bankfull Depth (m):	0.13	0.1	0.2	3

	Avg	Min	Max	#
Gradient %:	15.25	3	23	4
Pool Depth (m):	0.21	0.21	0.21	1

Temp (C): 8 pH: 8.2 Conductivity: 50

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Cobble D95 (cm): 15.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐

Subdominant: Fines D (cm): 1.00 Braid ☐

Channel Pattern: Irregular, Wandering Islands: None

Coupling: Coupled

Confinement: Confined

Morphology: CP Cascade Pool

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

	C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover: Trace

LWD: None

LWD Dist: Not Applicable

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	N	N	N	N	D	T
Location: P/S/O:	☑☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☑☐☐	☑☐☐

FSZ: ☐

Right Bank: Shape: Sloping (g Texture: Fines ☑ Gravel ☐ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Sloping (g Texture: Fines ☑ Gravel ☐ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ 71-90%

Right Bank: Rip.Veg: Shrubs Stage: Not Applicable

Left Bank: Rip.Veg: Stage: Not Applicable Instream Veg: None ☐ Algae ☐ Moss ☑ Vascular ☐

FEATURES

NID Map	NID	Type	Hgt	Method	Lg	Method	Photo	UTM (Z/E/N)	Method
093L.060	30771	FSB	6.0	AL	30	GE	R: F:	9.689664.6051019	GIS

Comments: at 21% ~30m u/s from mouth - impassable to all fish

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
77	EF	1	100	39 sec	600	NFC	0		

Roll# 6, Frame# 6, CD# 2, Image#102, Direction: Upstream, Scale/Comment:cam bag
shallow and intermittent stream, percolates underground ~30m u/s from mouth, then becomes organic steps with isolated shallow pools. site = UTM = mouth. flat within W near mouth then "flows" through sparsely forested gully. Other - No fish habitat

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.060	60735

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.060 **ILP #:** 60735

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.690146.6050954 **Sample Type:** Biased

Length (km): .54 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 1.5 **Confinement:** Occasionally Con **Order:** 1 **Open water:**

US Elev (m): 1304 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 78 Field UTM 9.689682.6050904 Agency: C016 Crew: MJ/SR Date: 2002/07/24

Site Length (m): 150 GIS UTM 10.301874.6051246 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

Temp (C): pH: Conductivity:

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: D (cm):

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Roll# 6, Frame# 7, CD# 2, Image#103, Direction: Upstream, Scale/Comment:cam bag - dry "channel"
site = UTM. drainage disperses in forest floor ~50m u/s from "mouth", than has discontinuous and dry already channel, no fluvium, drains W u/s, some exposed cobbles. Other - No fish habitat

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
2.0	93L.060	60736

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.060 **ILP #:** 60736

REACH

Reach #: 2.0 **UTM(Zone/East/North):** 9.689870.6050165 **Sample Type:** Biased

Length (km): .12 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 3.3 **Confinement:** Unconfined **Order:** 2 **Open water:**

US Elev (m): 1329 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 79 Field UTM 9.689788.6050257 Agency: C016 Crew: MJ/SR Date: 2002/07/24

Site Length (m): 150 GIS UTM 10.301909.6050588 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☑ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.43	0.300	0.600	6
Wetted Width (m):	0.37	0.300	0.5	6
Bankfull Depth (m):	0.17	0.1	0.2	3

	Avg	Min	Max	#
Gradient %:	0.25	0	1	4
Pool Depth (m):	0.00	0	0	1

Temp (C): 22 pH: 7.5 Conductivity: 30

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Fines D95 (cm): 0.10

Subdominant: Not Applicable D (cm): 0.10

Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Channel Pattern: Irregular, Wandering Islands: None

Coupling: Decoupled

Confinement: Unconfined

Morphology: LC Large Channel

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover: Trace

LWD: None

LWD Dist: Not Applicable

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	N	N	N	N	S	D
Location: P/S/O:	☑ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☑ ☐ ☐	☑ ☐ ☐

FSZ: ☐

Right Bank: Shape: Sloping (g Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Sloping (g Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ 1-20%

Right Bank: Rip.Veg: Wetland Stage: Not Applicable

Left Bank: Rip.Veg: Stage: Not Applicable Instream Veg: None ☐ Algae ☑ Moss ☐ Vascular ☑

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
79	EF	1	150	133 sec	800	NFC	0		

Roll# 6, Frame# 20, CD# 2, Image#116, Direction: Upstream, Scale/Comment:cam bag
Roll# 6, Frame# 21, CD# 2, Image#117, Direction: Downstream, Scale/Comment:cam bag
site = UTM. Other - No fish habitat - shallow and exposed to sun channel through W

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.060	60738

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.060 **ILP #:** 60738

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.689423.6049916 **Sample Type:** Biased

Length (km): .35 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 7.7 **Confinement:** Confined **Order:** 1 **Open water:**

US Elev (m): 1350 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 80 Field UTM 9.689413.6050225 Agency: C016 Crew: MJ/SR Date: 2002/07/24

Site Length (m): 100 GIS UTM 10.301509.6050613 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

Temp (C): pH: Conductivity:

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: D (cm):

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Roll# 6, Frame# 17, CD# 2, Image#113, Direction: Upstream, Scale/Comment:cam bag
seepage - drains W u/s, water seeps through ground with occasional wet and squishy spots. site = UTM. Other - No fish habitat

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.060	60739

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.060 **ILP #:** 60739

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.689113.6050200 **Sample Type:** Biased

Length (km): .20 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 4.0 **Confinement:** Confined **Order:** 1 **Open water:**

US Elev (m): 1334 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 81 Field UTM 9.689249.6050129 Agency: C016 Crew: MJ/SR Date: 2002/07/24

Site Length (m): 150 GIS UTM 10.301338.6050531 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Temp (C): pH: Conductivity:

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: D (cm):

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Roll# 6, Frame# 12, CD# 2, Image#108, Direction: Upstream, Scale/Comment:cam bag
seepage draining to mainstem, no channel, no fluvium, no water, just squishy ground. site = UTM. Other - No fish habitat

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.060	60741

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.060 **ILP #:** 60741

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.687945.6051721 **Sample Type:** Biased
Length (km): .27 **Coupling:** **Magnitude:** **BGC Zone:**
Gradient (%): 7.4 **Confinement:** Confined **Order:** 1 **Open water:**
US Elev (m): 1262 **Islands:** **Riparian Vegetation:**
Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 82 Field UTM 9.688094.6051568 Agency: C016 Crew: SR/MJ Date: 2002/07/25
Site Length (m): 100 GIS UTM 10.300337.6052086 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐
Dewatered: ☐ Tribs.: ☐
Stage: Low ☐ Med ☐ High ☐
Temp (C): pH: Conductivity:

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	12.67	5	26	3
Pool Depth (m):	0.00	0	0	0

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐
Subdominant: D (cm):
Channel Pattern: Islands:
Coupling:
Confinement:
Morphology:

DISTURBANCE INDICATORS: O1 ☐ B1 ☐ B2 ☐ B3 ☐ D1 ☐ D2 ☐ D3 ☐

C1 ☐ C2 ☐ C3 ☐ C4 ☐ C5 ☐ S1 ☐ S2 ☐ S3 ☐ S4 ☐ S5 ☐

COVER

Total Cover: None

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	N	N	N	N	N	N	N
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

LWD:
LWD Dist: FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure
Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐
Right Bank: Rip.Veg: Stage:
Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Roll# 6, Frame# 22, CD# 2, Image#118, Direction: Upstream, Scale/Comment:vest
Roll# 6, Frame# 23, CD# 2, Image#119, Direction: Upstream, Scale/Comment:cam bag - almost channelized
site = real mouth = UTM. on top of valley wall (12m), stream flattens out and channel/water disappears. "stream" is channelized @ mouth, but is tiny steep trickle down valley wall. Other - none - no water on flat portion, too steep in watered section, no perennial habitat, no connection to parent due to cascade and NCD status

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.060	60742

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.060 **ILP #:** 60742

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.687998.6051051 **Sample Type:** Biased

Length (km): .35 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 0.9 **Confinement:** Occasionally Con **Order:** 2 **Open water:**

US Elev (m): 1249 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 83 Field UTM 9.687878.6051287 Agency: C016 Crew: SR/MJ Date: 2002/07/25

Site Length (m): 100 GIS UTM 10.300113.6051854 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☑ High ☐

	Avg	Min	Max	#
Channel Width (m):	1.67	1.3	2.1	6
Wetted Width (m):	1.60	1.3	2.1	6
Bankfull Depth (m):	0.37	0.3	0.4	3

	Avg	Min	Max	#
Gradient %:	3.25	3	4	4
Pool Depth (m):	0.36	0.29	0.41	4

Temp (C): 9 pH: 8.0 Conductivity: 40

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Cobble D95 (cm): 40.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐

Subdominant: Gravels D (cm): 4.00 Braid ☐

Channel Pattern: Sinuous Islands: None

Coupling: Partially Coupled

Confinement: Occasionally Confine

Morphology: CP Cascade Pool

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover: Abundant

LWD: None

LWD Dist: Not Applicable

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	N	N	S	N	D	S	N
Location: P/S/O:	☐☐☐	☐☐☐	☑☐☐	☐☐☐	☑☐☐	☑☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: V - shape Texture: Fines ☑ Gravel ☐ Cobble ☑ Boulder ☑ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Sloping (g Texture: Fines ☑ Gravel ☐ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ 1-20%

Right Bank: Rip.Veg: Shrubs Stage: Not Applicable

Left Bank: Rip.Veg: Stage: Not Applicable Instream Veg: None ☑ Algae ☐ Moss ☐ Vascular ☐

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
83	EF	1	100	78 sec	700	CT	10	46	94

Roll# 6, Frame# 25, CD# 2, Image#121, Direction: Upstream, Scale/Comment:cam bag
Roll# 7, Frame# 1, CD# 2, Image#122, Direction: Downstream, Scale/Comment:cam bag
nice flow, cobble cascade morphology in grassy meadow, surrounded by shrubs. site = UTM. Spawning Habitat - poor - mainly cobble, sparsely mixed with large gravels, angular. Rearing Habitat - good to excellent in abundant deep pools and boulder/cobble cover, other than shrubby overstream vegetation, no other types of cover (open meadow). Overwintering Habitat - good - plenty of deep pools, and likely perennial flow

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
2.0	93L.060	60742

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.060 **ILP #:** 60742

REACH

Reach #: 2.0 **UTM(Zone/East/North):** 9.687515.6049794 **Sample Type:** Biased
Length (km): 1.44 **Coupling:** **Magnitude:** **BGC Zone:**
Gradient (%): 2.2 **Confinement:** Frequently Confin **Order:** 2 **Open water:**
US Elev (m): 1281 **Islands:** **Riparian Vegetation:**
Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 84 Field UTM 9.687480.6049991 Agency: C016 Crew: SR/MJ Date: 2002/07/25
Site Length (m): 150 GIS UTM 10.299563.6050544 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐
Dewatered: ☐ Tribs.: ☐
Stage: Low ☐ Med ☑ High ☐

	Avg	Min	Max	#
Channel Width (m):	1.65	1.200	2.1	6
Wetted Width (m):	1.65	1.200	2.1	6
Bankfull Depth (m):	0.47	0.4	0.5	3

	Avg	Min	Max	#
Gradient %:	1.00	1	1	2
Pool Depth (m):	0.31	0.21	0.38	5

Temp (C): 9 pH: 8.0 Conductivity: 40
Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Cobble D95 (cm): 15.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐
Subdominant: Gravels D (cm): 1.00
Channel Pattern: Sinuous Islands: None
Coupling: Decoupled
Confinement: Occasionally Confine
Morphology: RP Riffle Pool

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover: Abundant
LWD: None
LWD Dist: Not Applicable

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	N	N	T	S	S	D	N
Location: P/S/O:	☐☐☐	☐☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Undercut Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure
Left Bank: Shape: Undercut Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ 1-20%
Right Bank: Rip.Veg: Shrubs Stage: Not Applicable
Left Bank: Rip.Veg: Stage: Not Applicable Instream Veg: None ☑ Algae ☐ Moss ☐ Vascular ☐

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
84	EF	1	150	388 sec	700	CT	1	60	60

Roll# 7, Frame# 7, CD# 2, Image#128, Direction: Upstream, Scale/Comment:probe
Roll# 7, Frame# 8, CD# 2, Image#129, Direction: Downstream, Scale/Comment:cam bag
CT numbers above this very low in good habitat (caught 2 in 800m). site = UTM = upper reach. walked entire reach shocking - reach in lower end contains confined bedrock outcrop section with few small drops that may reduce fish access. Spawning Habitat - F-M - no significant areas, but occasional suitable gravel pockets. Overwintering Habitat - G - perennial flow, good pools. Rearing Habitat - good to exc. - abundant deep cutbanks with extensive willow cover, good flow, depth

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
5.0	93L_060	60742

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L_060 **ILP #:** 60742

REACH

Reach #: 5.0 **UTM(Zone/East/North):** 9.687492.6048660 **Sample Type:** Biased

Length (km): .84 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 4.6 **Confinement:** Frequently Confin **Order:** 1 **Open water:**

US Elev (m): 1330 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 85 Field UTM 9.687082.6049008 Agency: C016 Crew: SR/MJ Date: 2002/07/25

Site Length (m): 100 GIS UTM 10.299094.6049598 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☑ High ☐

	Avg	Min	Max	#
Channel Width (m):	1.20	0.9	1.700	6
Wetted Width (m):	1.08	0.9	1.4	6
Bankfull Depth (m):	0.33	0.3	0.4	3

	Avg	Min	Max	#
Gradient %:	6.50	5	8	4
Pool Depth (m):	0.16	0.12	0.21	4

Temp (C): 9 pH: 8.0 Conductivity: 40

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Cobble D95 (cm): 30.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐

Subdominant: Gravels D (cm): 2.00 Braid ☐

Channel Pattern: Sinuous Islands: None

Coupling: Coupled

Confinement: Frequently Confined

Morphology: CP Cascade Pool

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover: Moderate

LWD: Few

LWD Dist: Evenly Distributed

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	T	S	S	D	S	N
Location: P/S/O:	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Undercut Texture: Fines ☑ Gravel ☐ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: V - shape Texture: Fines ☑ Gravel ☐ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ 21-40%

Right Bank: Rip.Veg: Coniferous Stage: Mature forest

Left Bank: Rip.Veg: Stage: Mature forest Instream Veg: None ☐ Algae ☑ Moss ☑ Vascular ☐

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
85	EF	1				CT	1	62	62

Roll# 7, Frame# 11, CD# 2, Image#132, Direction: Upstream, Scale/Comment:cam bag
Roll# 7, Frame# 12, CD# 2, Image#133, Direction: Downstream, Scale/Comment:cam bag
site = UTM. observed countless CT throughout wetland reaches 3 and 4, channel was narrow (0.7-1.0m) and incised - S4. Overwintering Habitat - F-P - lacks sufficient deep pools, but may be permanent flow. Spawning Habitat - F - none significant, but pool crest gravels often suitable. Rearing Habitat - M - occasional pools, but overall pretty shallow - CT not abundant

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach # 6.0 | ILP Map # 93L.060 | ILP # 60742

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000-000 **ILP Map #:** 93L.060 **ILP #:** 60742

REACH

Reach #: 6.0 **UTM(Zone/East/North):** 9.687701.6048793 **Sample Type:** Biased

Length (km): .30 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 1.0 **Confinement:** Unconfined **Order:** 1 **Open water:**

US Elev (m): 1333 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 86 Field UTM 9.687526.6048669 Agency: C016 Crew: SR/MJ Date: 2002/07/25

Site Length (m): 100 GIS UTM 10.299497.6049223 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☑ High ☐

	Avg	Min	Max	#
Channel Width (m):	1.25	0.600	1.600	6
Wetted Width (m):	1.25	0.600	1.600	6
Bankfull Depth (m):	0.33	0.3	0.4	3

	Avg	Min	Max	#
Gradient %:	0.50	0.5	0.5	1
Pool Depth (m):	0.29	0.22	0.38	4

Temp (C): 20 pH: 8.2 Conductivity: 40

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Fines D95 (cm): 8.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: Gravels D (cm): 0.10

Channel Pattern: Sinuous Islands: None

Coupling: Decoupled

Confinement: Unconfined

Morphology: RP Riffle Pool

DISTURBANCE INDICATORS: O1 ☐ B1 ☐ B2 ☐ B3 ☐ D1 ☐ D2 ☐ D3 ☐

C1 ☐ C2 ☐ C3 ☐ C4 ☐ C5 ☐ S1 ☐ S2 ☐ S3 ☐ S4 ☐ S5 ☐

COVER

Total Cover: Abundant

LWD: None

LWD Dist: Not Applicable

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	N	N	N	N	D	N	S
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☑☐☐	☐☐☐	☑☐☐

FSZ: ☐

Right Bank: Shape: Sloping (g Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Sloping (g Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ 0%

Right Bank: Rip.Veg: Grass Stage: Not Applicable

Left Bank: Rip.Veg: Stage: Not Applicable Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☑

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
86	EF	1	100	104 sec	700	CT	7	57	210

Roll# 7, Frame# 13, CD# 2, Image#134, Direction: Downstream, Scale/Comment:SR
Roll# 7, Frame# 14, CD# 2, Image#135, Direction: Upstream, Scale/Comment:dog - lake in background
all reach visible gradient. site = UTM = lower boundary. CT present right to HW reach, observed in reach and lake. Rearing Habitat - M - in grasses, pools - better in lower reach below wetland. Spawning Habitat - M - some gravels, likely used at lake outlet. Overwintering Habitat - G - in lake

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.060	60743

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.060 **ILP #:** 60743

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.688013.6051250 **Sample Type:** Biased

Length (km): .09 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 1.1 **Confinement:** Unconfined **Order:** 1 **Open water:**

US Elev (m): 1248 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 87 Field UTM 9.687950.6051280 Agency: C016 Crew: SR/MJ Date: 2002/07/25

Site Length (m): 100 GIS UTM 10.300142.6051789 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

Temp (C): pH: Conductivity:

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: D (cm):

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Roll# 6, Frame# 24, CD# 2, Image#120, Direction: Upstream, Scale/Comment:view from "mouth", MJ standing at lake outlet mapped stream is NCD, squishy ground up to lake, at lake outlet stream is slightly channelized, before dispersing in grassy meadow, no connection to lake, but lake may have another unmapped outlet that provides access for fish from -66400, no fish observe. site = "mouth". NCD to lake, lake dashed red. Other - none

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
.1	93L.060	60744

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.060 **ILP #:** 60744

REACH

Reach #: .1 **UTM(Zone/East/North):** 9.687748.6050180 **Sample Type:** Biased

Length (km): .14 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 5.7 **Confinement:** Frequently Confin **Order:** 1 **Open water:**

US Elev (m): 1282 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 88 Field UTM 9.687708.6050287 Agency: C016 Crew: SR/MJ Date: 2002/07/25

Site Length (m): 200 GIS UTM 10.299829.6050817 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐

Dewatered: ☐ Tribs.: ☑

Stage: Low ☐ Med ☑ High ☐

	Avg	Min	Max	#
Channel Width (m):	1.10	0.800	1.4	6
Wetted Width (m):	0.97	0.5	1.4	6
Bankfull Depth (m):	0.13	0.1	0.2	3

	Avg	Min	Max	#
Gradient %:	2.75	2	4	4
Pool Depth (m):	0.12	0.070	0.170	4

Temp (C): 9 pH: 8.1 Conductivity: 40

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Gravels D95 (cm): 12.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: Cobble D (cm): 2.00

Channel Pattern: Sinuous Islands: None

Coupling: Decoupled

Confinement: Unconfined

Morphology: RP Riffle Pool

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover: Trace

LWD: Few

LWD Dist: Evenly Distributed

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	T	T	T	D	S	N
Location: P/S/O:	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: V - shape Texture: Fines ☑ Gravel ☐ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Sloping (g Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ 21-40%

Right Bank: Rip.Veg: Shrubs Stage: Not Applicable

Left Bank: Rip.Veg: Stage: Not Applicable Instream Veg: None ☑ Algae ☐ Moss ☐ Vascular ☐

FEATURES

NID Map	NID	Type	Hgt	Method	Lg	Method	Photo	UTM (Z/E/N)	Method
093L060	30881	TRB		AL		GE	R: F:	9.687720.6050200	GIS

Comments: unmapped seasonal LB trib

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
88	EF	1				NFC	0		

Roll# 7, Frame# 2, CD# 2, Image#123, Direction: Downstream, Scale/Comment:cam bag
Roll# 7, Frame# 3, CD# 2, Image#124, Direction: Upstream, Scale/Comment:no scale
caught CT in parent to here, but low numbers after canyon in R.2. site = mouth. gravels all flat/angular. after seasonal trib, gradient rises slightly , more forested, even lower habitat value. Rearing Habitat - P - very shallow, low energy crap with v. little instream cover or water deep enough to reside but accessible and marginally habitable. Spawning Habitat - none - all gravels flat, angular. Overwintering Habitat - none - no pools deep enough

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.060	60744

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.060 **ILP #:** 60744

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.688539.6050122 **Sample Type:** Biased

Length (km): .96 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 5.0 **Confinement:** Frequently Confin **Order:** 1 **Open water:**

US Elev (m): 1330 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 89 Field UTM 9.687747.6050173 Agency: C016 Crew: SR/MJ Date: 2002/07/25

Site Length (m): 150 GIS UTM10.299845.6050703 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☑ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.53	0.400	0.7	6
Wetted Width (m):	0.53	0.400	0.7	6
Bankfull Depth (m):	0.10	0.1	0.1	3

	Avg	Min	Max	#
Gradient %:	5.75	4	8	4
Pool Depth (m):	0.04	0.03	0.06	4

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

Temp (C): 9 pH: 8.1 Conductivity: 40

MORPHOLOGY

Bed Material: Dominant: Gravels D95 (cm): 20.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: Fines D (cm): 0.50

Channel Pattern: Sinuous Islands: None

Coupling: Decoupled

Confinement: Occasionally Confine

Morphology: CP Cascade Pool

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

	C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover: Trace

LWD: Few

LWD Dist: Evenly Distributed

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	T	N	D	S	S	N
Location: P/S/O:	☑☐☐	☑☐☐	☐☐☐	☑☐☐	☑☐☐	☑☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: V - shape Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Undercut Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ 41-70%

Right Bank: Rip.Veg: Coniferous Stage: Mature forest

Left Bank: Rip.Veg: Stage: Mature forest Instream Veg: None ☑ Algae ☐ Moss ☐ Vascular ☐

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
89	EF	1	150	279 sec	700	NFC	0		

Roll# 7, Frame# 4, CD# 2, Image#125, Direction: Downstream, Scale/Comment:cam bag
Roll# 7, Frame# 5, CD# 2, Image#126, Direction: Upstream, Scale/Comment:cam bag
inferred fish use (unlikely) to here, but enough is enough, shallower, steeper, no instream cover, less water and 2 sites NFC. at the end of site, becomes borderline creek, intermittent flow, etc. site = UTM = start of new reach. Rearing Habitat - poor - extremely shallow, barely enough water to cover fish, lacks instream cover, potential - poor. Spawning Habitat - none - gravels abundant , but all angular and flat. Overwintering Habitat - none

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L_060	60745

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L_060 **ILP #:** 60745

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.687331.6050343 **Sample Type:** Biased

Length (km): .34 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 3.2 **Confinement:** Occasionally Con **Order:** 1 **Open water:**

US Elev (m): 1287 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 90 Field UTM 9.687519.6050127 Agency: C016 Crew: SR/MJ Date: 2002/07/25

Site Length (m): 100 GIS UTM 10.299620.6050687 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

Temp (C): pH: Conductivity:

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: D (cm):

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Roll# 7, Frame# 6, CD# 2, Image#127, Direction: Upstream, Scale/Comment:cam bag
"stream" is seepage down meadow valley wall, no fluvium or continuous channel bed. site = mouth. Other - none - no channel, no water

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach # 2.0 | ILP Map # 93L.060 | ILP # 60746

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.060 **ILP #:** 60746

REACH

Reach #: 2.0 **UTM(Zone/East/North):** 9.687621.6049383 **Sample Type:** Biased

Length (km): .10 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 13.0 **Confinement:** Occasionally Con **Order:** 1 **Open water:**

US Elev (m): 1301 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 91 Field UTM 9.687586.6049512 Agency: C016 Crew: SR/MJ Date: 2002/07/25

Site Length (m): 150 GIS UTM 10.299628.6050058 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☑

Dewatered: ☐ Tribs.: ☐

Stage: Low ☑ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.55	0.400	0.7	6
Wetted Width (m):	0.18	0	0.400	6
Bankfull Depth (m):	0.17	0.1	0.2	3

	Avg	Min	Max	#
Gradient %:	0.83	0.5	1	3
Pool Depth (m):	0.08	0.04	0.16	4

Temp (C): 10 pH: 8.1 Conductivity: 30

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Fines D95 (cm): 0.10 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: Not Applicable D (cm): 0.05

Channel Pattern: Irregular Meanders Islands: None

Coupling: Decoupled

Confinement: Unconfined

Morphology: LC Large Channel

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover: Trace

LWD: None

LWD Dist: Not Applicable

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	N	N	N	S	S	D	N
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☑☐☐	☑☐☐	☑☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Undercut Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Left Bank: Shape: Undercut Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Crown Closure 1-20%

Right Bank: Rip.Veg: Shrubs Stage: Not Applicable

Left Bank: Rip.Veg: Stage: Not Applicable

Instream Veg: None ☐ Algae ☐ Moss ☑ Vascular ☑

FEATURES

NID Map	NID	Type	Hgt	Method	Lg	Method	Photo				UTM (Z/E/N)	Method
93L.060	30911	F	1.0	GE		GE	R:	7	F:	10	9.687586.6049512	GIS

Comments: organic falls, no hab u/s

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
91	EF	1	150	384 sec	700	NFC	0		

Roll# 7, Frame# 9, CD# 2, Image#130, Direction: Upstream, Scale/Comment:cam bag - no more photos necessary - can't see channel

Roll# 7, Frame# 10, CD# 2, Image#131, Direction: Upstream, Scale/Comment:cam bag - fals in features

reach is tiny, shallow trickle through meadow, heavily vegetated with willow, freq. dry or discontinuous channel with lots of percolation through meadow, subflow. Not fish habitat, access messed up by freq. dry channel, percolation and subflow in R.1. site = UTM. fines = organics = 95% of substrate. Overwintering Habitat - none. Rearing Habitat - none; poor in R.1 - shallow and freq. dry, meandering channel through meadow, habitat improves in upper R.1 (observed and shocked for information). Spawning Habitat - none

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach # ILP Map # ILP #

Watershed Code: 480-802100-66400-72600-0000-0000-000-000-000-000-000-000 1.0

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 480-802100-66400-72600-0000-0000-000-000-000-000-000-000 **ILP Map #:** **ILP #:**

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.687390.6051466 **Sample Type:** Biased

Length (km): .46 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 0.7 **Confinement:** Occasionally Con **Order:** 2 **Open water:**

US Elev (m): 1250 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 92 Field UTM 9.687571.6051377 Agency: C016 Crew: MJ/SR Date: 2002/07/26

Site Length (m): 150 GIS UTM 10.299762.6051913 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☑ High ☐

	Avg	Min	Max	#
Channel Width (m):	4.50	4	5	2
Wetted Width (m):	4.50	4	5	2
Bankfull Depth (m):	0.30	0.2	0.4	3

	Avg	Min	Max	#
Gradient %:	0.00	0	0	1
Pool Depth (m):	0.00	0	0	2

Temp (C): 9 pH: 8.3 Conductivity: 40

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Fines D95 (cm): 40.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: Cobble D (cm): 0.10

Channel Pattern: Irregular, Wandering Islands: None

Coupling: Decoupled

Confinement: Occasionally Confine

Morphology: RP Riffle Pool

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

	C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover: Abundant

LWD: None

LWD Dist: Not Applicable

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	N	N	T	S	D	T	S
Location: P/S/O:	☐☐☐	☐☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐

FSZ: ☐

Right Bank: Shape: Undercut Texture: Fines ☑ Gravel ☐ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Undercut Texture: Fines ☑ Gravel ☐ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ 0%

Right Bank: Rip.Veg: Wetland Stage: Not Applicable

Left Bank: Rip.Veg: Stage: Not Applicable Instream Veg: None ☐ Algae ☑ Moss ☐ Vascular ☑

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
92	EF	1	150	284 sec	700	CT	1	96	96

Roll# 8, Frame# 3, CD# 2, Image#149, Direction: Upstream, Scale/Comment:SR
Roll# 8, Frame# 4, CD# 2, Image#150, Direction: Downstream, Scale/Comment:MJ
open water wetland type section of stream. site = UTM. Overwintering Habitat - poor - likely freezes. Rearing Habitat - excellent in open water wetland type section of reach. Spawning Habitat - none - no suitable substrate

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach # ILP Map # ILP #

Watershed Code: 480-802100-66400-72600-0000-0000-000-000-000-000-000-000 2.0

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 480-802100-66400-72600-0000-0000-000-000-000-000-000-000 **ILP Map #:** **ILP #:**

REACH

Reach #: 2.0 **UTM(Zone/East/North):** 9.687043.6051487 **Sample Type:** Biased

Length (km): .33 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 0.6 **Confinement:** Occasionally Con **Order:** 2 **Open water:**

US Elev (m): 1252 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 93 Field UTM 9.687209.6051497 Agency: C016 Crew: MJ/SR Date: 2002/07/26

Site Length (m): 200 GIS UTM 10.299422.6052060 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☑ High ☐

	Avg	Min	Max	#
Channel Width (m):	1.25	1	1.5	6
Wetted Width (m):	1.25	1	1.5	6
Bankfull Depth (m):	0.40	0.4	0.4	3

	Avg	Min	Max	#
Gradient %:	0.50	0	1	4
Pool Depth (m):	0.00	0	0	2

Temp (C): 12 pH: 8.1 Conductivity: 40

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Fines D95 (cm): 0.10 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: Not Applicable D (cm): 0.10

Channel Pattern: Regular Meanders Islands: None

Coupling: Decoupled

Confinement: Unconfined

Morphology: LC Large Channel

DISTURBANCE INDICATORS: O1 ☐ B1 ☐ B2 ☐ B3 ☐ D1 ☐ D2 ☐ D3 ☐

C1 ☐ C2 ☐ C3 ☐ C4 ☐ C5 ☐ S1 ☐ S2 ☐ S3 ☐ S4 ☐ S5 ☐

COVER

Total Cover: Abundant

LWD: None

LWD Dist: Not Applicable

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	N	N	D	N	S	S
Location: P/S/O:	☑ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☑ ☐ ☐	☐ ☐ ☐	☑ ☐ ☐	☑ ☐ ☐

FSZ: ☐

Right Bank: Shape: Undercut Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Undercut Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ 0%

Right Bank: Rip.Veg: Wetland Stage: Not Applicable

Left Bank: Rip.Veg: Stage: Not Applicable Instream Veg: None ☐ Algae ☑ Moss ☐ Vascular ☑

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
93	EF	1				NFC	0		

Roll# 8, Frame# 9, CD# 2, Image#155, Direction: Upstream, Scale/Comment:SR
Roll# 8, Frame# 10, CD# 2, Image#156, Direction: Downstream, Scale/Comment:cam bag
site = UTM. flows through meadow, run type morphology. no reason why no fish. Overwintering Habitat - none - likely too shallow and no distinct flow. Rearing Habitat - potentially good in abundant CB. Spawning Habitat - none - fines in substrate

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach # | ILP Map # | ILP #

Watershed Code: 480-802100-66400-72600-0000-0000-000-000-000-000-000-000 | 4.0

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 480-802100-66400-72600-0000-0000-000-000-000-000-000-000 **ILP Map #:** **ILP #:**

REACH

Reach #: 4.0 **UTM(Zone/East/North):** 9.686393.6051347 **Sample Type:** Biased

Length (km): .15 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 0.7 **Confinement:** Unconfined **Order:** 2 **Open water:**

US Elev (m): 1256 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 94 Field UTM 9.686543.6051312 Agency: C016 Crew: MJ/SR Date: 2002/07/26

Site Length (m): 100 GIS UTM 10.298724.6051947 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

Temp (C): pH: Conductivity:

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: D (cm):

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Roll# 8, Frame# 14, CD# 2, Image#160, Direction: Upstream, Scale/Comment:MJ
site = UTM = end of R.3.1. Other - No fish habitat - nothing but grassy meadow, no channel, no fluvium

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.060	60747

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.060 **ILP #:** 60747

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.687363.6051579 **Sample Type:** Biased

Length (km): .09 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 2.2 **Confinement:** Frequently Confin **Order:** 1 **Open water:**

US Elev (m): 1252 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 95 Field UTM 9.687352.6051500 Agency: C016 Crew: MJ/SR Date: 2002/07/26

Site Length (m): 100 GIS UTM 10.299565.6052059 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☑ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.73	0.300	1.100	6
Wetted Width (m):	0.73	0.300	1.100	6
Bankfull Depth (m):	0.20	0.1	0.3	3

	Avg	Min	Max	#
Gradient %:	0.75	0	1	4
Pool Depth (m):	0.18	0.180	0.180	1

Temp (C): 8 pH: 8.3 Conductivity: 40

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Fines D95 (cm): 10.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: Gravels D (cm): 0.50

Channel Pattern: Irregular Meanders Islands: None

Coupling: Decoupled

Confinement: Occasionally Confine

Morphology: RP Riffle Pool

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover: Moderate

LWD: None

LWD Dist: Not Applicable

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	N	T	S	D	T	N
Location: P/S/O:	☑☐☐	☐☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Undercut Texture: Fines ☑ Gravel ☑ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Undercut Texture: Fines ☑ Gravel ☑ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ 1-20%

Right Bank: Rip.Veg: Shrubs Stage: Not Applicable

Left Bank: Rip.Veg: Stage: Not Applicable Instream Veg: None ☑ Algae ☐ Moss ☐ Vascular ☐

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
95	EF	1	80	273 sec	600	NFC	0		

Roll# 8, Frame# 7, CD# 2, Image#153, Direction: Upstream, Scale/Comment:cam bag
Roll# 8, Frame# 8, CD# 2, Image#154, Direction: Downstream, Scale/Comment:cam bag
abundant fresh water shrimp indicates fish absence. site = UTM. Overwintering Habitat - none - too shallow. Other - habitat usable and accessible, no reason why no fish. Rearing Habitat - good in fairly diverse cover. Spawning Habitat - none - angular substrate and mostly organic fines

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
2.0	93L.060	60747

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.060 **ILP #:** 60747

REACH

Reach #: 2.0 **UTM(Zone/East/North):** 9.687660.6051851 **Sample Type:** Biased
Length (km): .44 **Coupling:** **Magnitude:** **BGC Zone:**
Gradient (%): 3.0 **Confinement:** Unconfined **Order:** 1 **Open water:**
US Elev (m): 1265 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 96 Field UTM 9.687342.6051577 Agency: C016 Crew: MJ/SR Date: 2002/07/26
Site Length (m): 100 GIS UTM 10.299577.6052133 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☑
Dewatered: ☐ Tribs.: ☐
Stage: Low ☑ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.60	0.300	1.3	6
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.07	0	0.1	3

	Avg	Min	Max	#
Gradient %:	6.50	2	15	4
Pool Depth (m):	0.00	0	0	0

Temp (C): pH: Conductivity:
Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

MORPHOLOGY

Bed Material: Dominant: Gravels D95 (cm): 30.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐
Subdominant: Cobble D (cm): 5.00 Braid ☐

Channel Pattern: Irregular, Wandering Islands: None
Coupling: Partially Coupled
Confinement: Frequently Confined
Morphology: CP Cascade Pool

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover: None
LWD: None
LWD Dist: Not Applicable

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	N	N	N	N	N	N	N
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: V - shape Texture: Fines ☑ Gravel ☑ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure
Left Bank: Shape: V - shape Texture: Fines ☑ Gravel ☑ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ 1-20%
Right Bank: Rip.Veg: Shrubs Stage: Not Applicable
Left Bank: Rip.Veg: Stage: Not Applicable Instream Veg: None ☑ Algae ☐ Moss ☐ Vascular ☐

Roll# 8, Frame# 5, CD# 2, Image#151, Direction: Upstream, Scale/Comment:cam bag
Roll# 8, Frame# 6, CD# 2, Image#152, Direction: Downstream, Scale/Comment:cam bag
site = UTM. Other - No fish habitat - seasonal, dry already, tiny channel, no access d/t frequent subflow in 15% gradient section, frequently vegetated channel with no perennial habitat

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.060	60748

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.060 **ILP #:** 60748

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.686833.6051668 **Sample Type:** Biased
Length (km): .18 **Coupling:** **Magnitude:** **BGC Zone:**
Gradient (%): 3.9 **Confinement:** Occasionally Con **Order:** 1 **Open water:**
US Elev (m): 1262 **Islands:** **Riparian Vegetation:**
Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 97 Field UTM 9.687043.6051660 Agency: C016 Crew: MJ/SR Date: 2002/07/26
Site Length (m): 100 GIS UTM 10.299270.6052245 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐
Dewatered: ☐ Tribs.: ☐
Stage: Low ☐ Med ☑ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.68	0.200	1.100	6
Wetted Width (m):	0.68	0.200	1.100	6
Bankfull Depth (m):	0.20	0.2	0.2	3

	Avg	Min	Max	#
Gradient %:	1.25	0	3	4
Pool Depth (m):	0.18	0.140	0.230	3

Temp (C): 13 pH: 7.9 Conductivity: 50
Turbidity.: Turbid ☐ Low ☑ Moderate ☐ Clear ☐

MORPHOLOGY

Bed Material: Dominant: Fines D95 (cm): 8.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐
Subdominant: Gravels D (cm): 1.00
Channel Pattern: Irregular, Wandering Islands: None
Coupling: Coupled
Confinement: Frequently Confined
Morphology: RP Riffle Pool

DISTURBANCE INDICATORS: O1 ☐ B1 ☐ B2 ☐ B3 ☐ D1 ☐ D2 ☐ D3 ☐

C1 ☐ C2 ☐ C3 ☐ C4 ☐ C5 ☐ S1 ☐ S2 ☐ S3 ☐ S4 ☐ S5 ☐

COVER

Total Cover: Abundant
LWD: None
LWD Dist: Not Applicable

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	N	N	T	S	S	D
Location: P/S/O:	☑ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☑ ☐ ☐	☑ ☐ ☐	☑ ☐ ☐	☑ ☐ ☐

FSZ: ☐

Right Bank: Shape: Undercut Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure
Left Bank: Shape: Undercut Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ >90%
Right Bank: Rip.Veg: Shrubs Stage: Not Applicable
Left Bank: Rip.Veg: Stage: Not Applicable Instream Veg: None ☐ Algae ☑ Moss ☐ Vascular ☐

FEATURES

NID Map	NID	Type	Hgt	Method	Lg	Method	Photo				UTM (Z/E/N)	Method
093L.060	30971	C	2.5	AL	10	GE	R:	8	F:	11	9.687043.6051660	GIS

Comments: impassable to fish

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
97	EF	1	100	164 sec	600	NFC	0		

Roll# 8, Frame# 11, CD# 2, Image#157, Direction: Upstream, Scale/Comment:cam bag - cascade in features
Roll# 8, Frame# 12, CD# 2, Image#158, Direction: Downstream, Scale/Comment:boot
site = UTM = new reach above cascade. very slow flowing, filled with orange algae stream. water "thick". Rearing Habitat - none. Spawning Habitat - none. Overwintering Habitat - none. Other - habitat isolated above cascade anyway

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.060	60749

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.060 **ILP #:** 60749

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.686378.6051156 **Sample Type:** Biased

Length (km): .31 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 0.3 **Confinement:** Unconfined **Order:** 1 **Open water:**

US Elev (m): 1256 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 98 Field UTM 9.686551.6051296 Agency: C016 Crew: MJ/SR Date: 2002/07/26

Site Length (m): 100 GIS UTM10.298736.6051927 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

Temp (C): pH: Conductivity:

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: D (cm):

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Roll# 8, Frame# 13, CD# 2, Image#159, Direction: Across, Scale/Comment:no scale - visible W on left and embankement on right site = UTM. Other - No fish habitat - drains W above 25%/15m long embankment, no channel, no fluvium, not a stream

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.060	60751

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.060 **ILP #:** 60751

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.686909.6051149 **Sample Type:** Biased

Length (km): .66 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 1.4 **Confinement:** Occasionally Con **Order:** 1 **Open water:**

US Elev (m): 1259 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 99 Field UTM 9.687540.6051164 Agency: C016 Crew: MJ/SR Date: 2002/07/26

Site Length (m): 150 GIS UTM 10.299723.6051708 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Temp (C): pH: Conductivity:

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐

Subdominant: D (cm): Braid ☐

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS: O1 ☐ B1 ☐ B2 ☐ B3 ☐ D1 ☐ D2 ☐ D3 ☐

C1 ☐ C2 ☐ C3 ☐ C4 ☐ C5 ☐ S1 ☐ S2 ☐ S3 ☐ S4 ☐ S5 ☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Roll# 8, Frame# 1, CD# 2, Image#147, Direction: Upstream, Scale/Comment:MJ - channelized section
Roll# 8, Frame# 2, CD# 2, Image#148, Direction: Downstream, Scale/Comment:cam bag
site = UTM. Other - No fish habitat - discontinuous channel draining meadow, no fluvium, dry sections, accessible to fish for ~25m in parallel length to -66400, than percolates through

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.060	60752

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.060 **ILP #:** 60752

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.687399.6050548 **Sample Type:** Biased

Length (km): .24 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 8.3 **Confinement:** Frequently Confin **Order:** 1 **Open water:**

US Elev (m): 1276 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 100 Field UTM 9.687280.6050724 Agency: C016 Crew: MJ/SR Date: 2002/07/26

Site Length (m): 100 GIS UTM 10.299448.6051296 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	10.50	7	14	2
Pool Depth (m):	0.00	0	0	0

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

Temp (C): pH: Conductivity:

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: D (cm):

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Roll# 7, Frame# 23, CD# 2, Image#144, Direction: Upstream, Scale/Comment:cam bag
site = UTM. drains sloping meadow adjacent to right bank. of parent stream, discontinuous channel and fluvium. Other - No fish habitat

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.060	60753

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.060 **ILP #:** 60753

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.686748.6050573 **Sample Type:** Biased

Length (km): .10 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 1.0 **Confinement:** Unconfined **Order:** 1 **Open water:**

US Elev (m): 1261 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 101 Field UTM 9.686760.6050485 Agency: C016 Crew: MJ/SR Date: 2002/07/26

Site Length (m): 100 GIS UTM 10.298878.6051101 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	5.00	5	5	1
Pool Depth (m):	0.00	0	0	0

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

Temp (C): pH: Conductivity:

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: D (cm):

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

	C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Roll# 7, Frame# 22, CD# 2, Image#143, Direction: Downstream, Scale/Comment:SR
site =UTM. drains squishy meadow with some isolated and short channelized sections, disperses 20m u/s from lake, inaccessible to fish, lacks fluvium, continuity. Other - No fish habitat

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.060	60754

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.060 **ILP #:** 60754

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.686662.6049810 **Sample Type:** Biased

Length (km): .32 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 2.5 **Confinement:** Unconfined **Order:** 1 **Open water:**

US Elev (m): 1268 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 102 Field UTM 9.686655.6050154 Agency: C016 Crew: SR/MJ Date: 2002/07/25

Site Length (m): 150 GIS UTM 10.298766.6050777 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Temp (C): pH: Conductivity: Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: D (cm):

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Roll# 7, Frame# 15, CD# 2, Image#136, Direction: Upstream, Scale/Comment:cam bag
access blocked anyway at mouth - absorbed further into grassy wetland on lake shore. walked down from pond in upper reach, isolated water puddles on organics, no scour power, no defined continuous channel bed, fluvium. site = UTM = just up from mouth. no fish habitat - spawning (organics) or overwintering (dry). Other - none

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.060	60755

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.060 **ILP #:** 60755

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.686596.6049807 **Sample Type:** Biased
Length (km): .30 **Coupling:** **Magnitude:** **BGC Zone:**
Gradient (%): 2.7 **Confinement:** Unconfined **Order:** 1 **Open water:**
US Elev (m): 1268 **Islands:** **Riparian Vegetation:**
Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 103 Field UTM 9.686638.6050003 Agency: C016 Crew: SR/MJ Date: 2002/07/25
Site Length (m): 100 GIS UTM 10.298732.6050783 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐
Dewatered: ☐ Tribs.: ☐
Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐
Temp (C): pH: Conductivity:

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐
Subdominant: D (cm):
Channel Pattern: Islands:
Coupling:
Confinement:
Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:
LWD:
LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure
Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐
Right Bank: Rip.Veg: Stage:
Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

FEATURES

NID Map	NID	Type	Hgt	Method	Lg	Method	Photo				UTM (Z/E/N)	Method
093L.060	31031	BMA		AL		GE	R:		F:		9.686627.6050172	GIS

Comments: real stream actually enters ILP 60754 at site utm

site = "mouth". enters 60754 ~80m from mouth, but not an FPC stream, lacks channel bed and banks. Other - none

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
2.0	93L.060	60756

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.060 **ILP #:** 60756

REACH

Reach #: 2.0 **UTM(Zone/East/North):** 9.686272.6050695 **Sample Type:** Biased

Length (km): .26 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 1.2 **Confinement:** Unconfined **Order:** 1 **Open water:**

US Elev (m): 1270 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 104 Field UTM 9.686188.6050489 Agency: C016 Crew: MJ/SR Date: 2002/07/26

Site Length (m): 100 GIS UTM 10.298319.6051151 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☑ High ☐

	Avg	Min	Max	#
Channel Width (m):	1.85	0.400	3.700	6
Wetted Width (m):	1.83	0.400	3.6	6
Bankfull Depth (m):	0.27	0.1	0.4	3

	Avg	Min	Max	#
Gradient %:	0.25	0	1	4
Pool Depth (m):	0.66	0.47	0.920	3

Temp (C): 12 pH: 7.8 Conductivity: 70

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Fines D95 (cm): 4.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: Gravels D (cm): 0.50

Channel Pattern: Sinuous Islands: None

Coupling: Decoupled

Confinement: Unconfined

Morphology: RP Riffle Pool

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover: Moderate

LWD: None

LWD Dist: Not Applicable

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	N	N	N	T	D	T	S
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐

FSZ: ☐

Right Bank: Shape: Sloping (g Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Sloping (g Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ 1-20%

Right Bank: Rip.Veg: Wetland Stage: Not Applicable

Left Bank: Rip.Veg: Stage: Not Applicable Instream Veg: None ☐ Algae ☑ Moss ☐ Vascular ☑

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
104	EF	1	100	352 sec	500	CT	1	121	121

Roll# 7, Frame# 20, CD# 2, Image#141, Direction: Upstream, Scale/Comment:dog
Roll# 7, Frame# 21, CD# 2, Image#142, Direction: Downstream, Scale/Comment:cam bag
access impeded from lake d/s d/t low water level - stream disperses in seasonal meadow - otherwise easily accessible and usable CT habitat (observed channel in R.1 1.2-1.6m wide - S4). site = UTM. flows through W/subalpine meadow. Overwintering Habitat - fair - in some incised part of channel where water wouldn't freeze. Rearing Habitat - good in fairly deep channel with instream vegetation. Spawning Habitat - none in upper reach - all fines, fair in lower reach - some gravels present near lower reach boundary, but likely too much fines

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.060	60757

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.060 **ILP #:** 60757

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.685646.6049998 **Sample Type:** Biased

Length (km): .18 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 5.6 **Confinement:** Frequently Confin **Order:** 1 **Open water:**

US Elev (m): 1282 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 105 Field UTM 9.685821.6049987 Agency: C016 Crew: SR/MJ Date: 2002/07/25

Site Length (m): 100 GIS UTM 10.297897.6050677 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

Temp (C): pH: Conductivity:

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: D (cm):

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

no continuous channel bed (no sign of drainage) or fluvium, no fish habitat, no passage just a seepage. site = "mouth". Other - none

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.060	60758

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.060 **ILP #:** 60758

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.685832.6049686 **Sample Type:** Biased

Length (km): .15 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 2.7 **Confinement:** Occasionally Con **Order:** 2 **Open water:**

US Elev (m): 1280 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 106 Field UTM 9.685706.6049702 Agency: C016 Crew: SR/MJ Date: 2002/07/25

Site Length (m): 100 GIS UTM 10.297794.6050393 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

Temp (C): pH: Conductivity:

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: D (cm):

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Roll# 7, Frame# 19, CD# 2, Image#140, Direction: Upstream, Scale/Comment:no scale - squishy meadow reach u/s from site UTM rises out of meadow and lacks continuous channel bed or fluvium and contains no accessible habitat, reach below (in meadow) is inferred CT, broken into R. 0.1. site = UTM = middle of reach. FPC of R. 0.1 = (S4). Other - none

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.060	60800

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.060 **ILP #:** 60800

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.698820.6054590 **Sample Type:** Biased

Length (km): .18 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 7.8 **Confinement:** Frequently Confin **Order:** 1 **Open water:**

US Elev (m): 1242 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 107 Field UTM 9.690747.6054376 Agency: C016 Crew: SR/MJ Date: 2002/07/23

Site Length (m): 100 GIS UTM 10.303212.6054581 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☑ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.62	0.5	0.800	6
Wetted Width (m):	0.45	0.200	0.800	6
Bankfull Depth (m):	0.10	0.1	0.1	3

	Avg	Min	Max	#
Gradient %:	12.50	10	14	4
Pool Depth (m):	0.04	0.03	0.06	4

Temp (C): 9 pH: 8.4 Conductivity: 30

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Fines D95 (cm): 15.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: Cobble D (cm): 1.00

Channel Pattern: Sinuous Islands: None

Coupling: Coupled

Confinement: Frequently Confined

Morphology: CP Cascade Pool

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover: Trace

LWD: Few

LWD Dist: Evenly Distributed

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	T	N	T	D	S	N
Location: P/S/O:	☑☐☐	☑☐☐	☐☐☐	☑☐☐	☑☐☐	☑☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: V - shape Texture: Fines ☑ Gravel ☐ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: V - shape Texture: Fines ☑ Gravel ☐ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ 41-70%

Right Bank: Rip.Veg: Coniferous Stage: Mature forest

Left Bank: Rip.Veg: Stage: Mature forest Instream Veg: None ☐ Algae ☐ Moss ☑ Vascular ☐

FEATURES

NID Map	NID	Type	Hgt	Method	Lg	Method	Photo	UTM (Z/E/N)	Method
093L.060	31071	BMA		AL		GE	R: F:	9.690765.6054252	GIS

Comments: mouth mapped wrong - site utm = real location (~60m u/s from mapped)

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
107	EF	1	100	109 sec	700	NFC	0		

Roll# 5, Frame# 15, CD# 1, Image#86, Direction: Upstream, Scale/Comment:cam bag - note subflow
Roll# 5, Frame# 16, CD# 1, Image#87, Direction: Downstream, Scale/Comment:cam bag - note organic steps
site = 60m u/s from mapped mouth. note: Pierre C. still >5m channel here (barely) - still S2. Spawning Habitat - none - no gravels, too steep. Overwintering Habitat - none - (obvious - too shallow). Other - stream flows more to west than mapped - steep and shallow with no usable fish habitat anyway, maybe accessible near mouth, but S6 from here. Rearing Habitat - none - steep valley wall trickle with frequent long stretches of subflow

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.070	70718

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.070 **ILP #:** 70718

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.689482.6054005 **Sample Type:** Biased

Length (km): .74 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 6.4 **Confinement:** Frequently Confin **Order:** 1 **Open water:**

US Elev (m): 1282 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 108 Field UTM 9.690127.6054297 Agency: C016 Crew: SR/MJ Date: 2002/07/23

Site Length (m): 100 GIS UTM 10.302568.6054609 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Temp (C): pH: Conductivity: Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: D (cm):

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS: O1 ☐ B1 ☐ B2 ☐ B3 ☐ D1 ☐ D2 ☐ D3 ☐

C1 ☐ C2 ☐ C3 ☐ C4 ☐ C5 ☐ S1 ☐ S2 ☐ S3 ☐ S4 ☐ S5 ☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Roll# 5, Frame# 19, CD# 1, Image#90, Direction: Upstream, Scale/Comment:MJ
site = 40m from mouth. stream is seasonally moist, seepage with no continuous channel bed, no flow, no water, no habitat. Other - none

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.070	70719

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.070 **ILP #:** 70719

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.689961.6055081 **Sample Type:** Biased
Length (km): .58 **Coupling:** **Magnitude:** **BGC Zone:**
Gradient (%): 9.7 **Confinement:** Occasionally Con **Order:** 1 **Open water:**
US Elev (m): 1305 **Islands:** **Riparian Vegetation:**
Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 109 Field UTM 9.689839.6054409 Agency: C016 Crew: SR/MJ Date: 2002/07/23
Site Length (m): 300 GIS UTM 10.302179.6054926 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☑
Dewatered: ☐ Tribs.: ☐
Stage: Low ☑ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.85	0.600	1.100	6
Wetted Width (m):	0.35	0	0.800	6
Bankfull Depth (m):	0.13	0.1	0.2	3

	Avg	Min	Max	#
Gradient %:	3.25	3	4	4
Pool Depth (m):	0.07	0.06	0.08	2

Temp (C): 9 pH: 8.3 Conductivity: 30
Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Fines D95 (cm): 1.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐
Subdominant: Not Applicable D (cm): 0.05
Channel Pattern: Sinuous Islands: None
Coupling: Decoupled
Confinement: Unconfined
Morphology: RP Riffle Pool

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover: Trace
LWD: None
LWD Dist: Not Applicable

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	N	N	N	T	D	N
Location: P/S/O:	☑☐☐	☐☐☐	☐☐☐	☐☐☐	☑☐☐	☑☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Sloping (g Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure
Left Bank: Shape: Sloping (g Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ 41-70%
Right Bank: Rip.Veg: Shrubs Stage: Not Applicable
Left Bank: Rip.Veg: Stage: Not Applicable Instream Veg: None ☐ Algae ☐ Moss ☑ Vascular ☐

FEATURES

NID Map	NID	Type	Hgt	Method	Lg	Method	Photo		UTM (Z/E/N)	Method
093L.070	31091	BMA		AL		GE	R:	F:	9.689707.6054564	GIS

Comments: mouth mapped wrong - site utm real mouth

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
109	EF	1	300	88 sec	700	NFC	0		

Roll# 5, Frame# 20, CD# 1, Image#91, Direction: Downstream, Scale/Comment:SR - channel at mouth
Roll# 5, Frame# 21, CD# 1, Image#92, Direction: Upstream, Scale/Comment:cam bag - NCDish section
site = UTM = mouth. stream flows parallel to Pierre for 100m before finally entering. no habitat for 60m at mouth - all dry, then almost NCD (crap over organics, shrubs), crap creek from mouth. Rearing Habitat - none - dry and inaccessible at mouth, then all organic substrate. Overwintering Habitat - none - dry. Spawning Habitat - none - all fines. Other - when water appears, frequent intermittent, percolating - no flow, no habitat

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L_070	70720

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L_070 **ILP #:** 70720

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.688961.6055157 **Sample Type:** Biased

Length (km): .62 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 6.5 **Confinement:** Occasionally Con **Order:** 1 **Open water:**

US Elev (m): 1302 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 110 Field UTM 9.689200.6054710 Agency: C016 Crew: SR/MJ Date: 2002/07/23

Site Length (m): 200 GIS UTM 10.301675.6055121 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Temp (C): pH: Conductivity:

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: D (cm):

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

site = UTM = mapped mouth. walked 200m radius from mapped mouth, found a couple wet spots that ma have been the mapped stream, but no channel bed or fluvium present

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach # ILP Map # ILP #

Watershed Code: 480-802100-79900-00000-0000-0000-000-000-000-000-000-000 5.0

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 480-802100-79900-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** **ILP #:**

REACH

Reach #: 5.0 **UTM(Zone/East/North):** 9.687107.6054182 **Sample Type:** Biased

Length (km): .14 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 4.3 **Confinement:** Frequently Confin **Order:** 2 **Open water:**

US Elev (m): 1316 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 111 Field UTM 9.687246.6054245 Agency: C016 Crew: SR/MJ Date: 2002/07/29

Site Length (m): 140 GIS UTM 10.299689.6054758 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☑ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	1.43	0.800	1.9	6
Wetted Width (m):	1.15	0.800	1.9	6
Bankfull Depth (m):	0.23	0.2	0.3	3

	Avg	Min	Max	#
Gradient %:	3.00	2	5	4
Pool Depth (m):	0.24	0.230	0.26	2

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

Temp (C): 11 pH: 8.6 Conductivity: 40

MORPHOLOGY

Bed Material: Dominant: Cobble D95 (cm): 35.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: Fines D (cm): 6.00

Channel Pattern: Sinuous Islands: None

Coupling: Decoupled

Confinement: Occasionally Confine

Morphology: CP Cascade Pool

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

	C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover: Moderate

LWD: Few

LWD Dist: Evenly Distributed

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	T	S	N	D	S	N
Location: P/S/O:	☑☐☐	☑☐☐	☑☐☐	☐☐☐	☑☐☐	☑☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: V - shape Texture: Fines ☑ Gravel ☐ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Sloping (g Texture: Fines ☑ Gravel ☐ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ 41-70%

Right Bank: Rip.Veg: Shrubs Stage: Not Applicable

Left Bank: Rip.Veg: Stage: Mature forest Instream Veg: None ☑ Algae ☐ Moss ☐ Vascular ☐

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
111	EF	1	140	168 sec	700	NFC	0		

Roll# 9, Frame# 24, CD# 2, Image#195, Direction: Upstream, Scale/Comment:cam bag
Roll# 9, Frame# 25, CD# 2, Image#196, Direction: Downstream, Scale/Comment:cam bag
FPC may change to S3 if wider u/s. more incised, confined channel than u/s wetland reaches, narrower channel width. flatter, more fines, wider in u/s section of reach. but CT caught u/s?. NFC - S4 - deferred to u/s channel width - S3. site = UTM. Spawning Habitat - none - lacks substrate (all cobble/fines). Rearing Habitat - F-M - pretty shallow cascade pools over cobbles. Overwintering Habitat - poor - to shallow - more likely in u/s wetland reaches

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach # ILP Map # ILP #

Watershed Code: 480-802100-79900-00000-0000-0000-000-000-000-000-000-000 7.0

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 480-802100-79900-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** **ILP #:**

REACH

Reach #: 7.0 **UTM(Zone/East/North):** 9.686487.6054464 **Sample Type:** Biased

Length (km): .55 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 0.4 **Confinement:** Unconfined **Order:** 2 **Open water:**

US Elev (m): 1321 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 112 Field UTM 9.686702.6054393 Agency: C016 Crew: SR/MJ Date: 2002/07/29

Site Length (m): 300 GIS UTM 10.299169.6055007 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☑ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	1.60	1.200	1.9	6
Wetted Width (m):	1.60	1.200	1.9	6
Bankfull Depth (m):	0.50	0.4	0.6	3

	Avg	Min	Max	#
Gradient %:	0.50	0.5	0.5	2
Pool Depth (m):	0.24	0.21	0.270	2

Temp (C): 11 pH: 8.6 Conductivity: 40

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Fines D95 (cm): 14.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: Cobble D (cm): 0.01

Channel Pattern: Irregular Meanders Islands: Occasiona

Coupling: Decoupled

Confinement: Unconfined

Morphology: RP Riffle Pool

DISTURBANCE INDICATORS

O1	B1	B2	B3	D1	D2	D3
☑	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover: Abundant

LWD: None

LWD Dist: Not Applicable

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	N	N	N	S	D	S	S
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐

FSZ: ☐

Right Bank: Shape: V - shape Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Undercut Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ 1-20%

Right Bank: Rip.Veg: Grass Stage: Not Applicable

Left Bank: Rip.Veg: Stage: Not Applicable Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☑

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
112	EF	1	300	387 sec	700	NFC	0		

Roll# 10, Frame# 3, CD# 2, Image#199, Direction: Upstream, Scale/Comment:MJ
Roll# 10, Frame# 4, CD# 2, Image#200, Direction: Downstream, Scale/Comment:cam bag
site = UTM. CT presence from 1999 survey (observation) may be erroneous, should have captured one by now - Electrofished extensively in v. nice CT habitat throughout reach 5, 6 (no card) and 7, will investigate d/s to determine what's going on. walked d/s to R.1 - no barrier. old BD starts reach (disturbance?). Spawning Habitat - poor - no gravels - cobbles/fines. Rearing Habitat - good to excellent for CT in deep meandering run type habitat, especially in cutbanks and overstream vegetation. Overwintering Habitat - good - deep channel, ponds d/s near start of reach

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach # ILP Map # ILP #

Watershed Code: 480-802100-79900-00000-0000-0000-000-000-000-000-000-000 8.0

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 480-802100-79900-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** **ILP #:**

REACH

Reach #: 8.0 **UTM(Zone/East/North):** 9.686336.6054493 **Sample Type:** Biased

Length (km): .12 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 11.7 **Confinement:** Frequently Confin **Order:** 1 **Open water:**

US Elev (m): 1337 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 113 Field UTM 9.686469.6054464 Agency: C016 Crew: MJ/SR Date: 2002/07/30

Site Length (m): 150 GIS UTM 10.298931.6055069 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☑ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.95	0.400	1.5	6
Wetted Width (m):	0.62	0.300	1	6
Bankfull Depth (m):	0.23	0.1	0.4	3

	Avg	Min	Max	#
Gradient %:	4.67	1	9	3
Pool Depth (m):	0.20	0.12	0.280	4

Temp (C): 6 pH: 8.6 Conductivity: 40

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Cobble D95 (cm): 25.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: Not Applicable D (cm): 0.10

Channel Pattern: Sinuous Islands: None

Coupling: Coupled

Confinement: Confined

Morphology: CP Cascade Pool

DISTURBANCE INDICATORS: O1 ☐ B1 ☐ B2 ☐ B3 ☐ D1 ☐ D2 ☐ D3 ☐

C1 ☐ C2 ☐ C3 ☐ C4 ☐ C5 ☐ S1 ☐ S2 ☐ S3 ☐ S4 ☐ S5 ☐

COVER

Total Cover: Trace

LWD: Few

LWD Dist: Evenly Distributed

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	T	S	T	D	T	T
Location: P/S/O:	☑ ☐ ☐	☑ ☐ ☐	☑ ☐ ☐	☑ ☐ ☐	☑ ☐ ☐	☑ ☐ ☐	☑ ☐ ☐

FSZ: ☐

Right Bank: Shape: Sloping (g Texture: Fines ☑ Gravel ☐ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: V - shape Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ 21-40%

Right Bank: Rip.Veg: Coniferous Stage: Mature forest

Left Bank: Rip.Veg: Stage: Mature forest Instream Veg: None ☐ Algae ☐ Moss ☑ Vascular ☐

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
113	EF	1	150	223 sec	700	NFC	0		

Roll# 10, Frame# 17, CD# 3, Image#213, Direction: Upstream, Scale/Comment:SR
Roll# 10, Frame# 18, CD# 3, Image#214, Direction: Downstream, Scale/Comment:cam bag
creek flows through small gully, than small W, gully again and originates in meadow ~150m u/s from start of reach. Actually creek is a continuation of -79900. site = UTM. Overwintering Habitat - no. Spawning Habitat - no. Other - overall poor habitat, stream flows between cobbles, easily accessible to its HW from lower reaches. Rearing Habitat - fair in few shallow pools and amongst cobbles

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach # ILP Map # ILP #

Watershed Code: 480-802100-79900-00000-0000-0000-000-000-000-000-000-000 9.0

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 480-802100-79900-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** **ILP #:**

REACH

Reach #: 9.0 **UTM(Zone/East/North):** 9.686152.6054636 **Sample Type:** Biased

Length (km): .30 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 1.7 **Confinement:** Unconfined **Order:** 1 **Open water:**

US Elev (m): 1342 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 114 Field UTM 9.686336.6054479 Agency: C016 Crew: MJ/SR Date: 2002/07/30

Site Length (m): 100 GIS UTM 10.298812.6055116 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

Temp (C): pH: Conductivity:

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: D (cm):

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Roll# 10, Frame# 19, CD# 3, Image#215, Direction: Upstream, Scale/Comment:MJ
site = UTM = HW meadow. squishy meadow where creek originates, no channel (continuous), no fluvium. channel discontinuous in HW meadow, no connection to reach d/s. Other - No fish habitat

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L_070	70721

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L_070 **ILP #:** 70721

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.686477.6054274 **Sample Type:** Biased

Length (km): .44 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 0.9 **Confinement:** Unconfined **Order:** 1 **Open water:**

US Elev (m): 1324 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 115 Field UTM 9.686754.6054295 Agency: C016 Crew: SR/MJ Date: 2002/07/29

Site Length (m): 100 GIS UTM 10.299209.6054889 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Temp (C): pH: Conductivity: Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: D (cm):

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS: O1 ☐ B1 ☐ B2 ☐ B3 ☐ D1 ☐ D2 ☐ D3 ☐

C1 ☐ C2 ☐ C3 ☐ C4 ☐ C5 ☐ S1 ☐ S2 ☐ S3 ☐ S4 ☐ S5 ☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:							

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Roll# 10, Frame# 1, CD# 2, Image#197, Direction: Downstream, Scale/Comment:cam bag - 10m from "mouth" facing parent pond drainage not FPC stream - any water from u/s absorbed into wetland water table, no connection and no channel present, no fish habitat. site = UTM = edge of wetland. Other - none

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
2.0	93L.070	70722

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.070 **ILP #:** 70722

REACH

Reach #: 2.0 **UTM(Zone/East/North):** 9.686578.6054990 **Sample Type:** Biased

Length (km): .54 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 6.5 **Confinement:** Occasionally Con **Order:** 1 **Open water:**

US Elev (m): 1360 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 116 Field UTM 9.686788.6054545 Agency: C016 Crew: SR/MJ Date: 2002/07/29

Site Length (m): 100 GIS UTM 10.299273.6055138 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Temp (C): pH: Conductivity: Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: D (cm):

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Roll# 10, Frame# 5, CD# 3, Image#201, Direction: Upstream, Scale/Comment:cam bag
flow = 100ml/min. R.1 W was called S3 is actually just a wetland, back channel from parent stream. site = UTM. "stream" lacks continuous channel bed = discontinuous mud channel, no fish habitat or passage. Other - none

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L070	70723

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L070 **ILP #:** 70723

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.686269.6054965 **Sample Type:** Biased

Length (km): .69 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 7.5 **Confinement:** Frequently Confin **Order:** 1 **Open water:**

US Elev (m): 1373 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 117 Field UTM 9.686575.6054503 Agency: C016 Crew: SR/MJ Date: 2002/07/29

Site Length (m): 100 GIS UTM 10.299062.6055111 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

Temp (C): pH: Conductivity:

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: D (cm):

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	Q1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Roll# 10, Frame# 2, CD# 2, Image#198, Direction: Downstream, Scale/Comment:MJ - parent stream in background
not an FPC stream - no channel present, only moist ground, any water soaked into ground, no fish habitat, no passage, no possible use. site = UTM = "mouth". Other - none

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.070	70725

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.070 **ILP #:** 70725

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.687416.6055186 **Sample Type:** Biased

Length (km): .17 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 5.3 **Confinement:** Unconfined **Order:** 1 **Open water:**

US Elev (m): 1311 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 118 Field UTM 9.687399.6055060 Agency: C016 Crew: SR/MJ Date: 2002/07/29

Site Length (m): 120 GIS UTM 10.299949.6055585 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☑

Dewatered: ☐ Tribs.: ☐

Stage: Low ☑ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	1.20	0.800	1.4	6
Wetted Width (m):	0.20	0	0.7	6
Bankfull Depth (m):	0.37	0.3	0.4	3

	Avg	Min	Max	#
Gradient %:	2.75	2	3	4
Pool Depth (m):	0.18	0.170	0.19	2

Temp (C): 10 pH: 8.4 Conductivity: 40

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Fines D95 (cm): 8.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: Gravels D (cm): 2.00

Channel Pattern: Sinuous Islands: None

Coupling: Decoupled

Confinement: Unconfined

Morphology: RP Riffle Pool

DISTURBANCE INDICATORS: O1 ☐ B1 ☐ B2 ☐ B3 ☐ D1 ☐ D2 ☐ D3 ☐

C1 ☐ C2 ☐ C3 ☐ C4 ☐ C5 ☐ S1 ☐ S2 ☐ S3 ☐ S4 ☐ S5 ☐

COVER

Total Cover: Trace

LWD: None

LWD Dist: Not Applicable

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	N	N	S	D	S	N
Location: P/S/O:	☑ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☑ ☐ ☐	☑ ☐ ☐	☑ ☐ ☐	☐ ☐ ☐

FSZ: ☐

Right Bank: Shape: V - shape Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Undercut Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ 21-40%

Right Bank: Rip.Veg: Shrubs Stage: Not Applicable

Left Bank: Rip.Veg: Stage: Not Applicable Instream Veg: None ☑ Algae ☐ Moss ☐ Vascular ☐

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
118	EF	1	120	88 sec	700	CT	1	88	88

Roll# 10, Frame# 6, CD# 3, Image#202, Direction: Upstream, Scale/Comment:cam bag - note stranded, dead CT beside cam bag
Roll# 10, Frame# 7, CD# 3, Image#203, Direction: Downstream, Scale/Comment:cam bag
site = UTM = 20m from mouth. channel is almost entirely dry, cover refers to those wet areas. Rearing Habitat - poor - soon 100% dry, but CT making use of available habitat (isolated pools). Spawning Habitat - fair - some good gravels present in pool crests, otherwise all fines, organics, likely dry before emergence. Overwintering Habitat - poor or none, dry

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
2.0	93L.070	70725

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.070 **ILP #:** 70725

REACH

Reach #: 2.0 **UTM(Zone/East/North):** 9.687704.6055429 **Sample Type:** Biased
Length (km): .39 **Coupling:** **Magnitude:** **BGC Zone:**
Gradient (%): 6.7 **Confinement:** Occasionally Con **Order:** 1 **Open water:**
US Elev (m): 1337 **Islands:** **Riparian Vegetation:**
Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 119 Field UTM 9.687530.6055302 Agency: C016 Crew: SR/MJ Date: 2002/07/29
Site Length (m): 100 GIS UTM 10.300068.6055821 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☑
Dewatered: ☐ Tribs.: ☐
Stage: Low ☑ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	1.32	1	1.600	6
Wetted Width (m):	0.40	0	1.100	6
Bankfull Depth (m):	0.33	0.3	0.4	3

	Avg	Min	Max	#
Gradient %:	8.00	5	14	4
Pool Depth (m):	0.14	0.090	0.21	3

Temp (C): 10 pH: 8.4 Conductivity: 40
Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Cobble D95 (cm): 35.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐
Subdominant: Fines D (cm): 4.00
Channel Pattern: Irregular, Wandering Islands: None
Coupling: Decoupled
Confinement: Occasionally Confine
Morphology: CP Cascade Pool

DISTURBANCE INDICATORS: O1 ☐ B1 ☐ B2 ☐ B3 ☐ D1 ☐ D2 ☐ D3 ☐

C1 ☐ C2 ☐ C3 ☐ C4 ☐ C5 ☐ S1 ☐ S2 ☐ S3 ☐ S4 ☐ S5 ☐

COVER

Total Cover: Trace
LWD: Few
LWD Dist: Evenly Distributed

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	T	T	T	D	S	N
Location: P/S/O:	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Undercut Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure
Left Bank: Shape: Sloping (g Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ 21-40%
Right Bank: Rip.Veg: Shrubs Stage: Not Applicable
Left Bank: Rip.Veg: Stage: Not Applicable Instream Veg: None ☑ Algae ☐ Moss ☐ Vascular ☐

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
119	EF	1	100	264 sec	700	NFC	0		

Roll# 10, Frame# 8, CD# 3, Image#204, Direction: Upstream, Scale/Comment:cam bag
Roll# 10, Frame# 9, CD# 3, Image#205, Direction: Downstream, Scale/Comment:cam bag
frequent jailed shrubs. reach has more water than R.1, but is shallow trickle among cobbles and slightly steeper gradient. site = UTM, but walked all reach. trickle through cobble, frequently dry sections, CT use limited to section near mouth, proximal to Pierre, would have got them here. Spawning Habitat - none - all large cobble mixed with fines/organics. Overwintering Habitat - none. Rearing Habitat - poor - very shallow and seasonal, lacks deep pool habitat, too far from Pierre

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.070	70726

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.070 **ILP #:** 70726

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.687209.6054993 **Sample Type:** Biased

Length (km): .17 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 8.8 **Confinement:** Frequently Confin **Order:** 1 **Open water:**

US Elev (m): 1320 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 120 Field UTM 9.687303.6055087 Agency: C016 Crew: SR/MJ Date: 2002/07/29

Site Length (m): 100 GIS UTM 10.299822.6055637 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

Temp (C): pH: Conductivity:

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: D (cm):

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Roll# 10, Frame# 10, CD# 3, Image#206, Direction: Upstream, Scale/Comment:no scale
site = UTM = mouth. channelized at mouth, but only d/t Pierre C. s/c flow, channel water disappears/percolates immediately u/s from s/c, no fish habitat or potential. Other - none - except in side channel of Pierre

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.070	70727

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.070 **ILP #:** 70727

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.686681.6055077 **Sample Type:** Biased

Length (km): .66 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 7.6 **Confinement:** Confined **Order:** 1 **Open water:**

US Elev (m): 1358 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 121 Field UTM 9.687252.6055195 Agency: C016 Crew: SR/MJ Date: 2002/07/29

Site Length (m): 150 GIS UTM 10.299793.6055733 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

Temp (C): pH: Conductivity:

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐

Subdominant: D (cm): Braid ☐

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Roll# 10, Frame# 11, CD# 3, Image#207, Direction: Downstream, Scale/Comment:cam bag - showing NCD'ish nature
Roll# 10, Frame# 12, CD# 3, Image#208, Direction: Upstream, Scale/Comment:cam bag - showing channelized section
"creek" also enter a small Pierre C. s/c and is occasionally channelized but discontinuous and inaccessible to CT, contains no usable fish habitat anyway, channelized sections - 1cm deep and 0.3m wide. site = UTM. Other - none

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.070	70728

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.070 **ILP #:** 70728

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.687348.6056084 **Sample Type:** Biased

Length (km): .88 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 12.5 **Confinement:** Confined **Order:** 1 **Open water:**

US Elev (m): 1435 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 122 Field UTM 9.686860.6055528 Agency: C016 Crew: SR/MJ Date: 2002/07/29

Site Length (m): 100 GIS UTM 10.299384.6056121 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	31.00	31	31	1
Pool Depth (m):	0.00	0	0	0

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

Temp (C): pH: Conductivity:

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: D (cm):

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Roll# 10, Frame# 13, CD# 3, Image#209, Direction: Upstream, Scale/Comment:cam bag
drainage is just a steep gully seepage/trickle down Pierre C. valley wall with no fish habitat/passage or potential, not an FPC stream, no overwinter u/s. site = UTM = 10m from mouth. Other - none

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.070	70729

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.070 **ILP #:** 70729

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.686387.6055391 **Sample Type:** Biased

Length (km): .39 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 14.1 **Confinement:** Confined **Order:** 1 **Open water:**

US Elev (m): 1384 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 123 Field UTM 9.686717.6055590 Agency: C016 Crew: SR/MJ Date: 2002/07/29

Site Length (m): 100 GIS UTM 10.299274.6056157 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Temp (C): pH: Conductivity: Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: D (cm):

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS: O1 ☐ B1 ☐ B2 ☐ B3 ☐ D1 ☐ D2 ☐ D3 ☐

C1 ☐ C2 ☐ C3 ☐ C4 ☐ C5 ☐ S1 ☐ S2 ☐ S3 ☐ S4 ☐ S5 ☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

no drainage (FPC) present, one NCD observed d/s on Pierre, but it was also NCD with no fish habitat or potential - nothing to photograph. site = UTM = "mouth". Other - none

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L_070	70730

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L_070 **ILP #:** 70730

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.686857.6056128 **Sample Type:** Biased

Length (km): .41 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 10.5 **Confinement:** Confined **Order:** 2 **Open water:**

US Elev (m): 1385 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 124 Field UTM 9.686662.6055814 Agency: C016 Crew: SR/MJ Date: 2002/07/29

Site Length (m): 150 GIS UTM 10.299245.6056416 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☑

Dewatered: ☐ Tribs.: ☐

Stage: Low ☑ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	1.25	0.9	1.600	6
Wetted Width (m):	0.70	0	1.3	6
Bankfull Depth (m):	0.33	0.3	0.4	3

	Avg	Min	Max	#
Gradient %:	14.00	10	18	4
Pool Depth (m):	0.09	0.06	0.12	3

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

Temp (C): 8 pH: 8.5 Conductivity: 30

MORPHOLOGY

Bed Material: Dominant: Cobble D95 (cm): 35.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: Gravels D (cm): 4.00

Channel Pattern: Sinuous Islands: None

Coupling: Coupled

Confinement: Frequently Confined

Morphology: CP Cascade Pool

DISTURBANCE INDICATORS: O1 ☐ B1 ☐ B2 ☐ B3 ☐ D1 ☐ D2 ☐ D3 ☐

C1 ☐ C2 ☐ C3 ☐ C4 ☐ C5 ☐ S1 ☐ S2 ☐ S3 ☐ S4 ☐ S5 ☐

COVER

Total Cover: Trace

LWD: None

LWD Dist: Not Applicable

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	N	N	S	T	D	T	N
Location: P/S/O:	☐☐☐	☐☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: V - shape Texture: Fines ☑ Gravel ☑ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Undercut Texture: Fines ☑ Gravel ☑ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ 21-40%

Right Bank: Rip.Veg: Coniferous Stage: Mature forest

Left Bank: Rip.Veg: Stage: Mature forest Instream Veg: None ☐ Algae ☐ Moss ☑ Vascular ☐

FEATURES

NID Map	NID	Type	Hgt	Method	Lg	Method	Photo				UTM (Z/E/N)	Method
093L.070	31241	C	4.0	AL	14	GE	R:	10	F:	14	9.686662.6055814	GIS

Comments: steep gradient commencing with bedrock chute, contains frequent steps with no pools, impassable

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
124	EF	1	150	364 sec	700	NFC	0		

Roll# 10, Frame# 14, CD# 3, Image#210, Direction: Upstream, Scale/Comment:MJ - cascade/chute in features
Roll# 10, Frame# 15, CD# 3, Image#211, Direction: Upstream, Scale/Comment:dog
Roll# 10, Frame# 16, CD# 3, Image#212, Direction: Downstream, Scale/Comment:cam bag
infer use (CT) to C, then S6. seasonal creek with no permanent habitat, no overwinter u/s to support isolated population. reach below C is 0.1, above is 1.0. NFC below as well. site = UTM = start of new reach. Other - all isolated. Overwintering Habitat - none - shallow. Spawning Habitat - none - no uniform gravels. Rearing Habitat - fair - occasional pools deep enough but within pretty steep gradient, shallow cobble cascades

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.070	70732

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.070 **ILP #:** 70732

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.686259.6055747 **Sample Type:** Biased

Length (km): .07 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 12.9 **Confinement:** Confined **Order:** 2 **Open water:**

US Elev (m): 1371 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 126 Field UTM 9.686323.6055729 Agency: C016 Crew: MJ/SR Date: 2002/07/30

Site Length (m): 200 GIS UTM 10.298900.6056371 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☑

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	15.00	15	15	1
Pool Depth (m):	0.00	0	0	0

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

Temp (C): pH: Conductivity:

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: D (cm):

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS: O1 ☐ B1 ☐ B2 ☐ B3 ☐ D1 ☐ D2 ☐ D3 ☐

C1 ☐ C2 ☐ C3 ☐ C4 ☐ C5 ☐ S1 ☐ S2 ☐ S3 ☐ S4 ☐ S5 ☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

FEATURES

NID Map	NID	Type	Hgt	Method	Lg	Method	Photo	UTM (Z/E/N)	Method
093L.070	31261	TRB		AL		GE	R: F:	9.686323.6055729	GIS

Comments: unmapped RB tributary, flows at BRG 050 on 25% slope

Roll# 10, Frame# 20, CD# 3, Image#216, Direction: Upstream, Scale/Comment:cam bag
site = UTM = ~60m d/s from meadow. discontinuous channel and vegetated for 60m on 15% slope d/s from meadow, some scoured sections, but in 80% entirely vegetated by shrubs and saplings, snowmelt runoff. Other - No fish habitat

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
.1	93L_070	70732

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L_070 **ILP #:** 70732

REACH

Reach #: .1 **UTM(Zone/East/North):** 9.686337.6055740 **Sample Type:** Biased

Length (km): .19 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 11.6 **Confinement:** Confined **Order:** 2 **Open water:**

US Elev (m): 1362 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 125 Field UTM 9.686476.6055828 Agency: C016 Crew: MJ/SR Date: 2002/07/30

Site Length (m): 150 GIS UTM 10.299061.6056446 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☑ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.87	0.600	1.100	6
Wetted Width (m):	0.62	0.400	0.9	6
Bankfull Depth (m):	0.20	0.2	0.2	3

	Avg	Min	Max	#
Gradient %:	11.00	6	15	4
Pool Depth (m):	0.18	0.13	0.230	4

Temp (C): 5 pH: 8.3 Conductivity: 30

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Cobble D95 (cm): 50.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: Gravels D (cm): 6.00

Channel Pattern: Sinuous Islands: None

Coupling: Coupled

Confinement: Confined

Morphology: CP Cascade Pool

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover: Trace

LWD: Few

LWD Dist: Evenly Distributed

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	T	D	T	S	T	T
Location: P/S/O:	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐

FSZ: ☐

Right Bank: Shape: V - shape Texture: Fines ☑ Gravel ☐ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: V - shape Texture: Fines ☑ Gravel ☐ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ 21-40%

Right Bank: Rip.Veg: Shrubs Stage: Not Applicable

Left Bank: Rip.Veg: Stage: Not Applicable Instream Veg: None ☐ Algae ☐ Moss ☑ Vascular ☐

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
125	EF	1	150	173 sec	700	NFC	0		

Roll# 10, Frame# 21, CD# 3, Image#217, Direction: Upstream, Scale/Comment:book
Roll# 10, Frame# 22, CD# 3, Image#218, Direction: Downstream, Scale/Comment:cam bag
flows through narrow gully with frequent small (0.5m) falls and cascades. site = UTM = mouth. Overwintering Habitat - none - too shallow and short pools. Other - creek accessible from Pierre. Rearing Habitat - fair at low/moderate flow, mainly among cobble/boulder and shallow pools. Spawning Habitat - none - substrate too large and mixed, lacks holding areas and fast flow in spring

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.070	70735

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.070 **ILP #:** 70735

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.686871.6057469 **Sample Type:** Biased

Length (km): .77 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 8.8 **Confinement:** Frequently Confin **Order:** 1 **Open water:**

US Elev (m): 1486 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 127 Field UTM 9.686421.6056900 Agency: C016 Crew: MJ/SR Date: 2002/07/30

Site Length (m): 100 GIS UTM 10.299102.6057511 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☑

Dewatered: ☐ Tribs.: ☐

Stage: Low ☑ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.88	0.600	1.200	6
Wetted Width (m):	0.00	0	0	6
Bankfull Depth (m):	0.13	0.1	0.2	3

	Avg	Min	Max	#
Gradient %:	7.25	7	8	4
Pool Depth (m):	0.00	0	0	6

Temp (C): pH: Conductivity:

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

MORPHOLOGY

Bed Material: Dominant: Cobble D95 (cm): 15.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: Gravels D (cm): 4.00

Channel Pattern: Sinuous Islands:

Coupling: Partially Coupled

Confinement: Frequently Confined

Morphology: CP Cascade Pool

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover: None

LWD: Few

LWD Dist: Evenly Distributed

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	N	N	N	N	N	N	N
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Sloping (g Texture: Fines ☑ Gravel ☑ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Sloping (g Texture: Fines ☑ Gravel ☑ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ 41-70%

Right Bank: Rip.Veg: Coniferous Stage: Mature forest

Left Bank: Rip.Veg: Stage: Mature forest Instream Veg: None ☑ Algae ☐ Moss ☐ Vascular ☐

Roll# 10, Frame# 23, CD# 3, Image#219, Direction: Upstream, Scale/Comment:cam bag
Roll# 10, Frame# 24, CD# 3, Image#220, Direction: Downstream, Scale/Comment:cam bag
flows through forested gully. site = UTM = end of meadow. inferred (S4) in R. 0.1. Other - No fish habitat - seasonal and moderately steep stream with no instream cover when flowing during snowmelt runoff. Overwintering Habitat - none. Rearing Habitat - none. Spawning Habitat - none

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.070	70736

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.070 **ILP #:** 70736

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.685856.6057082 **Sample Type:** Biased

Length (km): .28 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 8.6 **Confinement:** Occasionally Con **Order:** 1 **Open water:**

US Elev (m): 1440 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 128 Field UTM 9.686080.6057181 Agency: C016 Crew: MJ/SR Date: 2002/07/30

Site Length (m): 100 GIS UTM 10.298782.6057828 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	4.00	4	4	1
Pool Depth (m):	0.00	0	0	0

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

Temp (C): pH: Conductivity:

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: D (cm):

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Roll# 10, Frame# 25, CD# 3, Image#221, Direction: Upstream, Scale/Comment:cam bag
drains subalpine meadow, some short channelized sections within steeper (4%) gradient, otherwise seepage throughout. site = UTM. Other - No fish habitat

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L_070	70737

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L_070 **ILP #:** 70737

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.685655.6057174 **Sample Type:** Biased

Length (km): .44 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 6.1 **Confinement:** Unconfined **Order:** 1 **Open water:**

US Elev (m): 1445 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 129 Field UTM 9.686032.6057280 Agency: C016 Crew: MJ/SR Date: 2002/07/30

Site Length (m): 100 GIS UTM 10.298765.6057906 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

Temp (C): pH: Conductivity:

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: D (cm):

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Roll# 11, Frame# 1, CD# 3, Image#222, Direction: Downstream, Scale/Comment:MJ - overview
site = UTM. seepage through subalpine meadow, no fluvium, no continuity. Other - No fish habitat

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.070	70738

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.070 **ILP #:** 70738

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.686309.6057374 **Sample Type:** Biased

Length (km): .23 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 8.7 **Confinement:** Occasionally Con **Order:** 1 **Open water:**

US Elev (m): 1439 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 130 Field UTM 9.686119.6057274 Agency: C016 Crew: MJ/SR Date: 2002/07/30

Site Length (m): 100 GIS UTM 10.298816.6057941 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☑

Dewatered: ☐ Tribs.: ☐

Stage: Low ☑ Med ☐ High ☐

Temp (C): 5 pH: 8.5 Conductivity: 30

	Avg	Min	Max	#
Channel Width (m):	0.82	0.600	1.200	6
Wetted Width (m):	0.10	0	0.300	6
Bankfull Depth (m):	0.10	0.1	0.1	3

	Avg	Min	Max	#
Gradient %:	4.25	2	6	4
Pool Depth (m):	0.05	0.050	0.06	2

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Cobble D95 (cm): 10.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: Fines D (cm): 1.00

Channel Pattern: Sinuous Islands: None

Coupling: Decoupled

Confinement: Unconfined

Morphology: RP Riffle Pool

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☑	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover: None

LWD: Few

LWD Dist: Evenly Distributed

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	N	N	N	N	N	N	N
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Sloping (g Texture: Fines ☑ Gravel ☑ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Sloping (g Texture: Fines ☑ Gravel ☑ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ 21-40%

Right Bank: Rip.Veg: Shrubs Stage: Not Applicable

Left Bank: Rip.Veg: Stage: Not Applicable Instream Veg: None ☐ Algae ☐ Moss ☑ Vascular ☐

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
130	EF	1	2	23 sec	700	NFC	0		

Roll# 11, Frame# 2, CD# 3, Image#223, Direction: Upstream, Scale/Comment:cam bag
Roll# 11, Frame# 3, CD# 3, Image#224, Direction: Downstream, Scale/Comment:cam bag
site = UTM. Other - No fish habitat - small, almost dry stream, no instream cover when flowing, channel exposed, lacks R, S and O habitat

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.070	70739

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.070 **ILP #:** 70739

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.685676.6057389 **Sample Type:** Biased

Length (km): .36 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 7.8 **Confinement:** Frequently Confin **Order:** 1 **Open water:**

US Elev (m): 1450 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 131 Field UTM 9.686014.6057413 Agency: C016 Crew: MJ/SR Date: 2002/07/30

Site Length (m): 100 GIS UTM 10.298735.6058057 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Temp (C): pH: Conductivity:

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐

Subdominant: D (cm): Braid ☐

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Roll# 11, Frame# 4, CD# 3, Image#225, Direction: Downstream, Scale/Comment:MJ
site = UTM. discontinuous channel, drains W u/s, steep (22%) drop to parent stream, inaccessible anyway, no fluvium, not a stream. Other - No fish habitat

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.070	70740

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.070 **ILP #:** 70740

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.685849.6057657 **Sample Type:** Biased

Length (km): .19 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 5.3 **Confinement:** Unconfined **Order:** 1 **Open water:**

US Elev (m): 1441 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 132 Field UTM 9.685931.6057586 Agency: C016 Crew: MJ/SR Date: 2002/07/30

Site Length (m): 100 GIS UTM 10.298666.6058255 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Temp (C): pH: Conductivity:

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: D (cm):

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS: Q1 ☐ B1 ☐ B2 ☐ B3 ☐ D1 ☐ D2 ☐ D3 ☐

C1 ☐ C2 ☐ C3 ☐ C4 ☐ C5 ☐ S1 ☐ S2 ☐ S3 ☐ S4 ☐ S5 ☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

FEATURES

NID Map	NID	Type	Hgt	Method	Lg	Method	Photo		UTM (Z/E/N)	Method
093L.070	31321	FSZ		AL	50	GE	R:	F:	9.686001.6057581	GIS

Comments: usable habitat from mouth for 50m

Roll# 11, Frame# 5, CD# 3, Image#226, Direction: Upstream, Scale/Comment:dog seepage, drains subalpine meadow, with discontinuous channel, no fluvium. site = UTM. Other - drainage accessible and usable for R for 50m from mouth than NCD from UTM

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L_070	70741

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L_070 **ILP #:** 70741

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.686080.6057714 **Sample Type:** Biased

Length (km): .11 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 6.4 **Confinement:** Unconfined **Order:** 1 **Open water:**

US Elev (m): 1440 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 133 Field UTM 9.686028.6057695 Agency: C016 Crew: MJ/SR Date: 2002/07/30

Site Length (m): 100 GIS UTM 10.298769.6058358 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Temp (C): pH: Conductivity:

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: D (cm):

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Roll# 11, Frame# 6, CD# 3, Image#227, Direction: Upstream, Scale/Comment:mj
site = UTM. just squishy meadow. Other - No fish habitat

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
2.0	93L.070	70742

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.070 **ILP #:** 70742

REACH

Reach #: 2.0 **UTM(Zone/East/North):** 9.686654.6058077 **Sample Type:** Biased

Length (km): .33 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 8.2 **Confinement:** Occasionally Con **Order:** 2 **Open water:**

US Elev (m): 1489 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 134 Field UTM 9.686306.6058100 Agency: C016 Crew: MJ/SR Date: 2002/07/30

Site Length (m): 150 GIS UTM 10.299085.6058714 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☑

Dewatered: ☐ Tribs.: ☐

Stage: Low ☑ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	1.08	0.9	1.3	6
Wetted Width (m):	0.07	0	0.200	6
Bankfull Depth (m):	0.10	0.1	0.1	3

	Avg	Min	Max	#
Gradient %:	4.67	4	5	3
Pool Depth (m):	0.00	0	0	3

Temp (C): 5 pH: 8.4 Conductivity: 30

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Cobble D95 (cm): 10.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: Gravels D (cm): 2.00

Channel Pattern: Sinuous Islands: None

Coupling: Partially Coupled

Confinement: Occasionally Confine

Morphology: RP Riffle Pool

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☑	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover: None

LWD: None

LWD Dist: Not Applicable

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	N	N	N	N	N	N	N
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Sloping (g Texture: Fines ☑ Gravel ☐ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Sloping (g Texture: Fines ☑ Gravel ☐ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ 41-70%

Right Bank: Rip.Veg: Shrubs Stage: Not Applicable

Left Bank: Rip.Veg: Stage: Not Applicable Instream Veg: None ☐ Algae ☐ Moss ☑ Vascular ☐

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
134	EF	1	150	48 sec	700	NFC	0		

Roll# 11, Frame# 7, CD# 3, Image#228, Direction: Upstream, Scale/Comment:cam bag
Roll# 11, Frame# 8, CD# 3, Image#229, Direction: Downstream, Scale/Comment:MJ
site = UTM. flows through shrubby corridor. usable habitat in R d/s (R 1.1 - (S4)). Other - No fish habitat - shallow and intermittent stream, lacking good instream cover when watered, no R, S, O. Cover - no pools observed, just trickle between cobbles

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.070	70743

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.070 **ILP #:** 70743

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.686283.6057972 **Sample Type:** Biased

Length (km): .12 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 9.2 **Confinement:** Occasionally Con **Order:** 1 **Open water:**

US Elev (m): 1463 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 135 Field UTM 9.686179.6058033 Agency: C016 Crew: MJ/SR Date: 2002/07/30

Site Length (m): 200 GIS UTM 10.298969.6058665 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

Temp (C): pH: Conductivity:

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: D (cm):

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS: O1 ☐ B1 ☐ B2 ☐ B3 ☐ D1 ☐ D2 ☐ D3 ☐

C1 ☐ C2 ☐ C3 ☐ C4 ☐ C5 ☐ S1 ☐ S2 ☐ S3 ☐ S4 ☐ S5 ☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

FEATURES

NID Map	NID	Type	Hgt	Method	Lg	Method	Photo		UTM (Z/E/N)	Method
093L.070	31351	BMA		AL		GE	R:	F:	9.686182.6058039	GIS

Comments: no drainage present

no any kind of drainage present at mapped location or 100m vicinity. site = UTM

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.070	70746

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.070 **ILP #:** 70746

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.685708.6056085 **Sample Type:** Biased

Length (km): .35 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 5.7 **Confinement:** Frequently Confin **Order:** 2 **Open water:**

US Elev (m): 1390 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 136 Field UTM 9.685909.6056232 Agency: C016 Crew: SR/MJ Date: 2002/07/31

Site Length (m): 100 GIS UTM 10.298543.6056888 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☑ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	1.67	1.4	1.9	6
Wetted Width (m):	1.50	1	1.9	6
Bankfull Depth (m):	0.33	0.3	0.4	3

	Avg	Min	Max	#
Gradient %:	6.50	5	8	4
Pool Depth (m):	0.31	0.270	0.360	3

Temp (C): 7 pH: 8.6 Conductivity: 40

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Cobble D95 (cm): 40.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐

Subdominant: Boulders D (cm): 6.00 Braid ☐

Channel Pattern: Sinuous Islands: None

Coupling: Partially Coupled

Confinement: Frequently Confined

Morphology: CP Cascade Pool

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover: Abundant

LWD: None

LWD Dist: Not Applicable

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	N	N	T	S	S	D	N
Location: P/S/O:	☐☐☐	☐☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Undercut Texture: Fines ☑ Gravel ☐ Cobble ☑ Boulder ☑ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: V - shape Texture: Fines ☑ Gravel ☐ Cobble ☑ Boulder ☑ Rock ☐ Manmade ☐ 1-20%

Right Bank: Rip.Veg: Shrubs Stage: Not Applicable

Left Bank: Rip.Veg: Stage: Not Applicable Instream Veg: None ☐ Algae ☐ Moss ☑ Vascular ☐

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
136	EF	1	100	204 sec	700	CT	3	57	146

Roll# 11, Frame# 16, CD# 3, Image#237, Direction: Upstream, Scale/Comment:cam bag
Roll# 11, Frame# 17, CD# 3, Image#238, Direction: Downstream, Scale/Comment:cam bag
site = UTM = ~80m u/s from mouth. reach is fairly strait, confined section draining meadow reach 2, moderately steep and v. shrubby gully. Spawning Habitat - poor/fair - substrate too large, no gravels present - small uniform gravels in low gradient sections. Overwintering Habitat - good - likely permanent flow/deep pools. Rearing Habitat - good - exc. - abundant step/cascade pools covered by overstream vegetation, boulders, some cutbanks

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
2.0	93L_070	70746

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L_070 **ILP #:** 70746

REACH

Reach #: 2.0 **UTM(Zone/East/North):** 9.685093.6055665 **Sample Type:** Biased

Length (km): .82 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 1.0 **Confinement:** Unconfined **Order:** 2 **Open water:**

US Elev (m): 1398 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 137 Field UTM 9.685085.6055708 Agency: C016 Crew: SR/MJ Date: 2002/07/31

Site Length (m): 100 GIS UTM 10.297680.6056431 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☑ High ☐

	Avg	Min	Max	#
Channel Width (m):	1.58	1.4	1.8	6
Wetted Width (m):	1.58	1.4	1.8	6
Bankfull Depth (m):	0.60	0.4	0.8	3

	Avg	Min	Max	#
Gradient %:	0.50	0.5	0.5	2
Pool Depth (m):	0.62	0.48	0.71	5

Temp (C): 7 pH: 8.6 Conductivity: 50

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Gravels D95 (cm): 12.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐

Subdominant: Fines D (cm): 2.00 Braid ☐

Channel Pattern: Irregular Meanders Islands: Occasiona

Coupling: Decoupled

Confinement: Unconfined

Morphology: RP Riffle Pool

DISTURBANCE INDICATORS: O1 ☐ B1 ☐ B2 ☐ B3 ☐ D1 ☐ D2 ☐ D3 ☐

C1 ☐ C2 ☐ C3 ☐ C4 ☐ C5 ☐ S1 ☐ S2 ☐ S3 ☐ S4 ☐ S5 ☐

COVER

Total Cover: Abundant

LWD: None

LWD Dist: Not Applicable

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	N	N	N	T	D	S	T
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐

FSZ: ☐

Right Bank: Shape: Undercut Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: V - shape Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ 1-20%

Right Bank: Rip.Veg: Shrubs Stage: Not Applicable

Left Bank: Rip.Veg: Stage: Not Applicable Instream Veg: None ☐ Algae ☑ Moss ☐ Vascular ☑

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
137	EF	1	400	487 sec	700	CT	1	162	162

Roll# 11, Frame# 21, CD# 3, Image#242, Direction: Upstream, Scale/Comment:cam bag
Roll# 11, Frame# 22, CD# 3, Image#243, Direction: Downstream, Scale/Comment:cam bag
site in upper reach, but walked and shocked entire, only 1 CT caught!. Overwintering Habitat - good-excellent - plenty of water, abundant very deep sections (0.8-1.0m). Spawning Habitat - mod - frequent gravels suitable at pool crests. Rearing Habitat - excellent for CT, frequent long/deep run sections, extensive instream vegetation in form of willow shrub

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
3.0	93L.070	70746

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.070 **ILP #:** 70746

REACH

Reach #: 3.0 **UTM(Zone/East/North):** 9.684477.6055440 **Sample Type:** Biased

Length (km): .51 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 8.2 **Confinement:** Occasionally Con **Order:** 2 **Open water:**

US Elev (m): 1440 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 138 Field UTM 9.684980.6055600 Agency: C016 Crew: SR/MJ Date: 2002/07/31

Site Length (m): 100 GIS UTM 10.297551.6056357 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

Temp (C): pH: Conductivity:

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: D (cm):

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Roll# 11, Frame# 24, CD# 3, Image#245, Direction: Upstream, Scale/Comment:SR
"channel" is marginally accessible to site UTM (= R. 2.1), only 1 CT in reach below (R.2). at site, channel disperses in willow jail, occasional reappearing, but totally dry; no continuity, no CT habitat anyway; when appearing, channel is cobbles/fines, organics, dry and moss covered. site = UTM. Other - none

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.070	70747

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.070 **ILP #:** 70747

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.685228.6055881 **Sample Type:** Biased
Length (km): .17 **Coupling:** **Magnitude:** **BGC Zone:**
Gradient (%): 2.4 **Confinement:** Unconfined **Order:** 1 **Open water:**
US Elev (m): 1399 **Islands:** **Riparian Vegetation:**
Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 139 Field UTM 9.685364.6055863 Agency: C016 Crew: SR/MJ Date: 2002/07/31
Site Length (m): 100 GIS UTM 10.297953.6056565 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐
Dewatered: ☐ Tribs.: ☐
Stage: Low ☑ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.37	0.300	0.5	6
Wetted Width (m):	0.28	0.200	0.400	6
Bankfull Depth (m):	0.23	0.2	0.3	3

	Avg	Min	Max	#
Gradient %:	1.17	0.5	2	3
Pool Depth (m):	0.11	0.06	0.21	4

Temp (C): 6 pH: 8.6 Conductivity: 30
Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Fines D95 (cm): 0.10 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐
Subdominant: Not Applicable D (cm): 0.01

Channel Pattern: Irregular, Wandering Islands: None
Coupling: Decoupled
Confinement: Unconfined
Morphology: LC Large Channel

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover: Trace
LWD: None
LWD Dist: Not Applicable

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	N	N	N	S	T	D	T
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☑☐☐	☑☐☐	☑☐☐	☑☐☐

FSZ: ☐

Right Bank: Shape: Undercut Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure
Left Bank: Shape: V - shape Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ 1-20%
Right Bank: Rip.Veg: Grass Stage: Not Applicable
Left Bank: Rip.Veg: Stage: Not Applicable Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☑

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
139	EF	1	100	188 sec	700	NFC	0		

Roll# 11, Frame# 18, CD# 3, Image#239, Direction: Upstream, Scale/Comment:cam bag - note narrow, shallow organic channel
Roll# 11, Frame# 19, CD# 3, Image#240, Direction: Downstream, Scale/Comment:cam bag
site = UTM. fines = organic/detritus. solid red, as FPC won't change, and usable, but unlikely. Overwintering Habitat - couple deep pools near POD, usable, 0.58m deep. Rearing Habitat - poor-fair - low gradient, accessible and channelized meadow reach, but tiny, shallow with low fisheries values. Spawning Habitat - none

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
2.0	93L.070	70747

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.070 **ILP #:** 70747

REACH

Reach #: 2.0 **UTM(Zone/East/North):** 9.685019.6056026 **Sample Type:** Biased

Length (km): .25 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 8.0 **Confinement:** Confined **Order:** 1 **Open water:**

US Elev (m): 1419 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 140 Field UTM 9.685265.6055882 Agency: C016 Crew: SR/MJ Date: 2002/07/31

Site Length (m): 100 GIS UTM 10.297859.6056603 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Temp (C): pH: Conductivity:

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: D (cm):

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Roll# 11, Frame# 20, CD# 3, Image#241, Direction: Upstream, Scale/Comment:dog channel, drainage ends at edge of meadow - no channel/water present u/s from site, no fish habitat, passage or potential. site = UTM = start of reach. Other - none

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.070	70748

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.070 **ILP #:** 70748

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.684842.6055119 **Sample Type:** Biased

Length (km): .60 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 8.0 **Confinement:** Occasionally Con **Order:** 1 **Open water:**

US Elev (m): 1455 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 141 Field UTM 9.685091.6055562 Agency: C016 Crew: SR/MJ Date: 2002/07/31

Site Length (m): 100 GIS UTM 10.297642.6056300 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

Temp (C): pH: Conductivity:

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: D (cm):

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Roll# 11, Frame# 23, CD# 3, Image#244, Direction: Upstream, Scale/Comment:SR
to here will be R.0.1. site = UTM. "channel" is marginally accessible to site UTM (v. shallow crap) and only 1 CT inR.2 of parent. at site channel disperses in willow jail and loses continuity, no fish habitat, passage or potential. Other - none

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
3.0	93L.070	70750

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.070 **ILP #:** 70750

REACH

Reach #: 3.0 **UTM(Zone/East/North):** 9.685022.6057491 **Sample Type:** Biased

Length (km): .29 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 9.3 **Confinement:** Occasionally Con **Order:** 1 **Open water:**

US Elev (m): 1464 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 142 Field UTM 9.685196.6057298 Agency: C016 Crew: MJ/SR Date: 2002/07/30

Site Length (m): 150 GIS UTM 10.297927.6058027 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	6.00	6	6	1
Pool Depth (m):	0.00	0	0	0

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

Temp (C): pH: Conductivity:

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: D (cm):

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Roll# 11, Frame# 11, CD# 3, Image#232, Direction: Upstream, Scale/Comment:cam bag
site = UTM =start of reach. creek from R.4 through cobble rubble, mostly underground, entire reach vegetated and no continuous channel present, only some isolated channelized sections. percolates through cobbles on willow vegetated slope. Other - No fish habitat

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
2.0	93L.070	70751

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.070 **ILP #:** 70751

REACH

Reach #: 2.0 **UTM(Zone/East/North):** 9.685322.6057445 **Sample Type:** Biased
Length (km): .15 **Coupling:** **Magnitude:** **BGC Zone:**
Gradient (%): 10.0 **Confinement:** Confined **Order:** 1 **Open water:**
US Elev (m): 1453 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 143 Field UTM 9.685332.6057310 Agency: C016 Crew: MJ/SR Date: 2002/07/30
Site Length (m): 100 GIS UTM 10.298058.6058017 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☑
Dewatered: ☐ Tribs.: ☐
Stage: Low ☑ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.55	0.300	0.800	6
Wetted Width (m):	0.15	0	0.600	6
Bankfull Depth (m):	0.13	0.1	0.2	3

	Avg	Min	Max	#
Gradient %:	12.75	10	16	4
Pool Depth (m):	0.00	0	0	1

Temp (C): 6 pH: 8.4 Conductivity: 30
Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Cobble D95 (cm): 15.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐
Subdominant: Fines D (cm): 0.01 Braid ☐

Channel Pattern: Sinuous Islands: None
Coupling: Coupled
Confinement: Confined
Morphology: CP Cascade Pool

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover: None
LWD: Few
LWD Dist: Evenly Distributed

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	N	N	N	N	N	N	N
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: V - shape Texture: Fines ☑ Gravel ☐ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure
Left Bank: Shape: V - shape Texture: Fines ☑ Gravel ☐ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ 21-40%
Right Bank: Rip.Veg: Coniferous Stage: Mature forest
Left Bank: Rip.Veg: Stage: Mature forest Instream Veg: None ☐ Algae ☐ Moss ☑ Vascular ☐

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
143	EF	1	100	18 sec	700	NFC	0		

Roll# 11, Frame# 9, CD# 3, Image#230, Direction: Upstream, Scale/Comment:cam bag
Roll# 11, Frame# 10, CD# 3, Image#231, Direction: Downstream, Scale/Comment:cambag
site = UTM. flows on forested slope with some subflow sections. Other - No fish habitat - steep, no instream cover when watered, at present percolates through cobbles where is flowing; no R, S, O

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.070	70753

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.070 **ILP #:** 70753

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.684765.6056525 **Sample Type:** Biased
Length (km): .26 **Coupling:** **Magnitude:** **BGC Zone:**
Gradient (%): 1.2 **Confinement:** Unconfined **Order:** 1 **Open water:**
US Elev (m): 1426 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 144 Field UTM 9.684585.6056567 Agency: C016 Crew: SR/MJ Date: 2002/07/31
Site Length (m): 100 GIS UTM 10.297222.6057368 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐
Dewatered: ☐ Tribs.: ☐
Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

Temp (C): pH: Conductivity:

MORPHOLOGY

Bed Material: Dominant: D95 (cm): **Bars:** Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐
Subdominant: D (cm):

Channel Pattern: Islands:
Coupling:
Confinement:
Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:
LWD:
LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure
Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐
Right Bank: Rip.Veg: Stage:
Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Roll# 12, Frame# 1, CD# 3, Image#247, Direction: Upstream, Scale/Comment:cam bag - shows morphology?
stream is only a willow shrub corridor with no channel present, no water, no fish habitat. site = UTM = ~40m from mouth. Other - none

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.070	70754

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.070 **ILP #:** 70754

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.684997.6056387 **Sample Type:** Biased
Length (km): .35 **Coupling:** **Magnitude:** **BGC Zone:**
Gradient (%): 1.4 **Confinement:** Occasionally Con **Order:** 1 **Open water:**
US Elev (m): 1432 **Islands:** **Riparian Vegetation:**
Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 145 Field UTM 9.684688.6056366 Agency: C016 Crew: SR/MJ Date: 2002/07/31
Site Length (m): 100 GIS UTM 10.297325.6057124 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐
Dewatered: ☐ Tribs.: ☐
Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Temp (C): pH: Conductivity: Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐
Subdominant: D (cm):
Channel Pattern: Islands:
Coupling:
Confinement:
Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:
LWD:
LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure
Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐
Right Bank: Rip.Veg: Stage:
Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Roll# 11, Frame# 25, CD# 3, Image#246, Direction: Upstream, Scale/Comment:dog - cobble collection - note lack of channel in background
drainage is just very local bank runoff, no fluvium, no water, no channel bed present; no fish habitat, passage, or potential; enters shrub jail. site = UTM = near "mouth". Other - none

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.070	70756

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.070 **ILP #:** 70756

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.684123.6056765 **Sample Type:** Biased
Length (km): .12 **Coupling:** **Magnitude:** **BGC Zone:**
Gradient (%): 0.8 **Confinement:** Unconfined **Order:** 1 **Open water:**
US Elev (m): 1423 **Islands:** **Riparian Vegetation:**
Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 146 Field UTM 9.684224.6056740 Agency: C016 Crew: SR/MJ Date: 2002/07/31
Site Length (m): 100 GIS UTM 10.296899.6057583 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐
Dewatered: ☐ Tribs.: ☐
Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

Temp (C): pH: Conductivity:

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐
Subdominant: D (cm):
Channel Pattern: Islands:
Coupling:
Confinement:
Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:
LWD:
LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure
Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐
Right Bank: Rip.Veg: Stage:
Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Roll# 12, Frame# 2, CD# 3, Image#248, Direction: Upstream, Scale/Comment:probe = start of reach 1 = EFU = NOD site = UTM. reach 1 from UTM is dispersed with no fluvium or continuous channel bed and is not an FPC stream; no fish habitat or potential. 1st 100m of mapped "stream" is actually a lake back channel; from 100m to site UTM (R0.1), channel is dry mossy cobbles through meadow and has potentially and accessible, although marginal, habitat at higher flow. Other - none from site u/s

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.070	70757

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.070 **ILP #:** 70757

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.684323.6057248 **Sample Type:** Biased

Length (km): .38 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 3.2 **Confinement:** Occasionally Con **Order:** 1 **Open water:**

US Elev (m): 1433 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 147 Field UTM 9.684252.6056961 Agency: C016 Crew: MJ/SR Date: 2002/07/30

Site Length (m): 100 GIS UTM 10.296955.6057767 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

Temp (C): pH: Conductivity:

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: D (cm):

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

FEATURES

NID Map	NID	Type	Hgt	Method	Lg	Method	Photo	UTM (Z/E/N)	Method
093L.070	31471	BMA		AL		GE	R: F:	9.684252.6056961	GIS

Comments: no drainage present

Roll# 11, Frame# 12, CD# 3, Image#233, Direction: Upstream, Scale/Comment:SR
site = UTM = "mouth". no drainage present at mapped location or 100m radius

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.070	70758

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.070 **ILP #:** 70758

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.683862.6056730 **Sample Type:** Biased
Length (km): .22 **Coupling:** **Magnitude:** **BGC Zone:**
Gradient (%): 3.2 **Confinement:** Unconfined **Order:** 2 **Open water:**
US Elev (m): 1428 **Islands:** **Riparian Vegetation:**
Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 148 Field UTM 9.683883.6056876 Agency: C016 Crew: SR/MJ Date: 2002/07/31
Site Length (m): 120 GIS UTM 10.296566.6057711 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐
Dewatered: ☐ Tribs.: ☐
Stage: Low ☐ Med ☑ High ☐

	Avg	Min	Max	#
Channel Width (m):	1.62	1.200	2	6
Wetted Width (m):	1.52	1.200	2	6
Bankfull Depth (m):	0.33	0.3	0.4	3

	Avg	Min	Max	#
Gradient %:	2.25	1	3	4
Pool Depth (m):	0.22	0.12	0.310	4

Temp (C): 7 pH: 8.6 Conductivity: 40
Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Fines D95 (cm): 20.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐
Subdominant: Cobble D (cm): 1.00
Channel Pattern: Irregular Meanders Islands: None
Coupling: Decoupled
Confinement: Unconfined
Morphology: RP Riffle Pool

DISTURBANCE INDICATORS: O1 ☐ B1 ☐ B2 ☐ B3 ☐ D1 ☐ D2 ☐ D3 ☐

C1 ☐ C2 ☐ C3 ☐ C4 ☐ C5 ☐ S1 ☐ S2 ☐ S3 ☐ S4 ☐ S5 ☐

COVER

Total Cover: Abundant
LWD: None
LWD Dist: Not Applicable

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	N	N	N	S	T	D	N
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☑☐☐	☑☐☐	☑☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Undercut Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure
Left Bank: Shape: Undercut Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ 1-20%
Right Bank: Rip.Veg: Shrubs Stage: Not Applicable
Left Bank: Rip.Veg: Stage: Not Applicable Instream Veg: None ☐ Algae ☐ Moss ☑ Vascular ☐

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
148	EF	1	120	261 sec	700	CT	1	61	61

Roll# 12, Frame# 3, CD# 3, Image#249, Direction: Upstream, Scale/Comment:cam bag
Roll# 12, Frame# 4, CD# 3, Image#250, Direction: Downstream, Scale/Comment:cam bag
shocked R.2 right to 70759 with NFC. stream mapped draining lake into R.1 of this creek (not ILP'd) is not a creek; no drainage present, lake is isolated unless flows other way. reach is, again, willow corridor over fines and cobbles, some gravels present. found ribbon at EFU in R.2 " T72 left fork stream". site = UTM = ~40m u/s from lake. Overwintering Habitat - fair - not many v. deep pools, likely move to lake d/s. Rearing Habitat - moderate in occasional deep pool sections, abundant overstream vegetation cover - nice CT habitat. Spawning Habitat - poor-fair - some uniform gravel pockets, but no significant areas

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
2.0	93L_070	70758

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L_070 **ILP #:** 70758

REACH

Reach #: 2.0 **UTM(Zone/East/North):** 9.683150.6056498 **Sample Type:** Biased

Length (km): .43 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 9.5 **Confinement:** Frequently Confin **Order:** 1 **Open water:**

US Elev (m): 1480 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 149 Field UTM 9.683614.6056503 Agency: C016 Crew: SR/MJ Date: 2002/07/31

Site Length (m): 100 GIS UTM 10.296282.6057357 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	0.00	0	0	0
Pool Depth (m):	0.00	0	0	0

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

Temp (C): pH: Conductivity:

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: D (cm):

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Roll# 12, Frame# 6, CD# 3, Image#252, Direction: Upstream, Scale/Comment:MJ
at site channel becomes discontinuous with no fish habitat or potential, no passage u/s. ribbon "1+230 North,1+125 E". site = UTM = junction with 70759. note - shocked to here, NFC but infer CT present as habitat suitable and accessible to site UTM (= R.1.1). NCD from here, (S3) to here. Other - none

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.070	70759

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.070 **ILP #:** 70759

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.683204.6056637 **Sample Type:** Biased

Length (km): .47 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 6.8 **Confinement:** Frequently Confin **Order:** 1 **Open water:**

US Elev (m): 1480 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 150 Field UTM 9.683614.6056503 Agency: C016 Crew: SR/MJ Date: 2002/07/31

Site Length (m): 100 GIS UTM 10.296282.6057357 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☑ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☐ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.00	0	0	0
Wetted Width (m):	0.00	0	0	0
Bankfull Depth (m):	0.00	0	0	0

	Avg	Min	Max	#
Gradient %:	19.50	19.5	19.5	1
Pool Depth (m):	0.00	0	0	0

Temp (C): pH: Conductivity:

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: D (cm):

Channel Pattern: Islands:

Coupling:

Confinement:

Morphology:

DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3
	☐	☐	☐	☐	☐	☐	☐

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

COVER

Total Cover:

LWD:

LWD Dist:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg: Stage:

Left Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Roll# 12, Frame# 5, CD# 3, Image#251, Direction: Upstream, Scale/Comment:cam bag ribbon - "T = 1+300N, 1+155E, stream at 155E". stream lacks continuity - channel occasionally present but not continuous, not passable, no fish habitat anyway (dry). site = UTM = "mouth". 20% at mouth too. Other - none

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
.1	93L.070	70760

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.070 **ILP #:** 70760

REACH

Reach #: .1 **UTM(Zone/East/North):** 9.683286.6057539 **Sample Type:** Biased

Length (km): .72 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 3.6 **Confinement:** Frequently Confin **Order:** 1 **Open water:**

US Elev (m): 1447 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 151 Field UTM 9.683882.6057157 Agency: C016 Crew: MJ/SR Date: 2002/07/30

Site Length (m): 150 GIS UTM 10.296573.6057984 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☑ High ☐

	Avg	Min	Max	#
Channel Width (m):	1.55	1.4	1.8	6
Wetted Width (m):	1.12	0.800	1.4	6
Bankfull Depth (m):	0.20	0.2	0.2	3

	Avg	Min	Max	#
Gradient %:	1.50	1	2	4
Pool Depth (m):	0.26	0.230	0.280	2

Temp (C): 7 pH: 8.4 Conductivity: 40

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Cobble D95 (cm): 15.00 Bars: Non ☐ Side ☑ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: Gravels D (cm): 1.00

Channel Pattern: Irregular, Wandering Islands: None

Coupling: Decoupled

Confinement: Occasionally Confine

Morphology: RP Riffle Pool

DISTURBANCE INDICATORS: O1 ☐ B1 ☐ B2 ☐ B3 ☐ D1 ☐ D2 ☐ D3 ☐

C1 ☐ C2 ☐ C3 ☐ C4 ☐ C5 ☐ S1 ☐ S2 ☐ S3 ☐ S4 ☐ S5 ☐

COVER

Total Cover: Abundant

LWD: None

LWD Dist: Not Applicable

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	N	S	S	D	T	T
Location: P/S/O:	☑ ☐ ☐	☐ ☐ ☐	☑ ☐ ☐	☑ ☐ ☐	☑ ☐ ☐	☑ ☐ ☐	☑ ☐ ☐

FSZ: ☐

Right Bank: Shape: Undercut Texture: Fines ☑ Gravel ☐ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: Undercut Texture: Fines ☑ Gravel ☐ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ 1-20%

Right Bank: Rip.Veg: Shrubs Stage: Not Applicable

Left Bank: Rip.Veg: Stage: Not Applicable Instream Veg: None ☐ Algae ☑ Moss ☐ Vascular ☐

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
151	EF	1	150	207 sec	700	CT	6	69	84

Roll# 11, Frame# 14, CD# 3, Image#235, Direction: Upstream, Scale/Comment:SR
Roll# 11, Frame# 15, CD# 3, Image#236, Direction: Downstream, Scale/Comment:cam bag
site = UTM = mouth. Spawning Habitat - poor - not much of uniform gravels observed, some present near mouth. Rearing Habitat - excellent in abundant cover, many deep pools and cutbanks. Overwintering Habitat - poor - pools likely too shallow - move to Pierre L.

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach #	ILP Map #	ILP #
1.0	93L.070	70760

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** 93L.070 **ILP #:** 70760

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 9.683229.6057586 **Sample Type:** Biased
Length (km): .06 **Coupling:** **Magnitude:** **BGC Zone:**
Gradient (%): 48.3 **Confinement:** Frequently Confin **Order:** 1 **Open water:**
US Elev (m): 1450 **Islands:** **Riparian Vegetation:**
Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 152 Field UTM 9.683283.6057547 Agency: C016 Crew: SR/MJ Date: 2002/07/31
Site Length (m): 100 GIS UTM 10.296023.6058426 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐
Dewatered: ☐ Tribs.: ☐
Stage: Low ☐ Med ☑ High ☐

	Avg	Min	Max	#
Channel Width (m):	0.80	0.5	1.200	6
Wetted Width (m):	0.62	0.200	1	6
Bankfull Depth (m):	0.17	0.1	0.2	3

	Avg	Min	Max	#
Gradient %:	4.00	3	5	4
Pool Depth (m):	0.21	0.090	0.64	5

Temp (C): 9 pH: 8.4 Conductivity: 40
Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Cobble D95 (cm): 25.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐
Subdominant: Gravels D (cm): 1.00
Channel Pattern: Sinuous Islands: None
Coupling: Coupled
Confinement: Confined
Morphology: RP Riffle Pool

DISTURBANCE INDICATORS: O1 ☐ B1 ☐ B2 ☐ B3 ☐ D1 ☐ D2 ☐ D3 ☐

C1 ☐ C2 ☐ C3 ☐ C4 ☐ C5 ☐ S1 ☐ S2 ☐ S3 ☐ S4 ☐ S5 ☐

COVER

Total Cover: Moderate
LWD: None
LWD Dist: Not Applicable

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	N	N	N	S	T	D	N
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☑☐☐	☑☐☐	☑☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: V - shape Texture: Fines ☑ Gravel ☑ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure
Left Bank: Shape: Undercut Texture: Fines ☑ Gravel ☑ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ 1-20%
Right Bank: Rip.Veg: Shrubs Stage: Not Applicable
Left Bank: Rip.Veg: Stage: Not Applicable Instream Veg: None ☐ Algae ☐ Moss ☑ Vascular ☐

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
152	EF	1	100	267 sec	700	CT	6	64	153

Roll# 12, Frame# 7, CD# 3, Image#253, Direction: Downstream, Scale/Comment:MJ
Roll# 12, Frame# 8, CD# 3, Image#254, Direction: Upstream, Scale/Comment:cam bag
stream ends at HW bog/meadow at UTM 9.683215.6057600 = EFU - CT caught right there (150mm). reach - confined gully section. CT captured d/s in R.0.1 at UTM 9.683432.6.57443, and at EFU. reach is real mainstem of Pierre C. site = UTM = start of S4. Rearing Habitat - mod - pretty shallow, few pools/cutbanks, but CT present in them. Spawning Habitat - mod - occasional stretches of usable gravels. Overwintering Habitat - fair-mod - not great overall, but HW pool has good overwintering

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach # 2.1 | ILP Map # | ILP #

Watershed Code: 480-816400-06800-00000-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 480-816400-06800-00000-0000-0000-000-000-000-000-000-000 **ILP Map #:** **ILP #:**

REACH

Reach #: 2.1 **UTM(Zone/East/North):** 10.316929.6053663 **Sample Type:** Biased

Length (km): .28 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 17.1 **Confinement:** Entrenched **Order:** 2 **Open water:**

US Elev (m): 810 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 153 Field UTM 10.316961.6053957 Agency: C016 Crew: SR/MJ Date: 2002/07/04

Site Length (m): 200 GIS UTM 10.316977.6053955 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☑ High ☐

	Avg	Min	Max	#
Channel Width (m):	1.58	1.100	2.200	6
Wetted Width (m):	1.38	1	2	6
Bankfull Depth (m):	0.27	0.2	0.3	3

	Avg	Min	Max	#
Gradient %:	14.00	10	20	4
Pool Depth (m):	0.24	0.19	0.310	4

Temp (C): 9 pH: 8.5 Conductivity: 80

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Cobble D95 (cm): 400.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: Rock D (cm): 14.00

Channel Pattern: Sinuous Islands: None

Coupling: Coupled

Confinement: Frequently Confined

Morphology: CP Cascade Pool

DISTURBANCE INDICATORS: O1 ☐ B1 ☐ B2 ☐ B3 ☐ D1 ☐ D2 ☐ D3 ☐

C1 ☐ C2 ☐ C3 ☐ C4 ☐ C5 ☐ S1 ☐ S2 ☐ S3 ☐ S4 ☐ S5 ☐

COVER

Total Cover: Moderate

LWD: Few

LWD Dist: Evenly Distributed

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	T	S	T	D	S	N
Location: P/S/O:	☑ ☐ ☐	☑ ☐ ☐	☑ ☐ ☐	☑ ☐ ☐	☑ ☐ ☐	☑ ☐ ☐	☐ ☐ ☐

FSZ: ☐

Right Bank: Shape: V - shape Texture: Fines ☑ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure

Left Bank: Shape: V - shape Texture: Fines ☑ Gravel ☐ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐ 41-70%

Right Bank: Rip.Veg: Mixed C/D Stage: Mature forest

Left Bank: Rip.Veg: Stage: Mature forest Instream Veg: None ☐ Algae ☐ Moss ☑ Vascular ☐

FEATURES

NID Map	NID	Type	Hgt	Method	Lg	Method	Photo				UTM (Z/E/N)	Method
093K.051	31531	C	2.0	AL	8	GE	R:	1	F:	3	10.316974.6053955	GIS

Comments: 20% for 8m - documented (1999), but confirmed utm and fish absence u/s - no jump pool

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
153	EF	1	200	313 sec	600	NFC	0		

Roll# 1, Frame# 3, CD# 1, Image#3, Direction: Upstream, Scale/Comment:Mj - cascade/beginning of steep section in features
Roll# 1, Frame# 4, CD# 1, Image#4, Direction: Upstream, Scale/Comment:cam bag
Roll# 1, Frame# 5, CD# 1, Image#5, Direction: Downstream, Scale/Comment:probe
natural spring d/s from cascade contributes significant flow - rationale for RB there?. site = UTM = from cascade. follow-up to confirm fish absence. cascade marks start of ~60m long bedrock cascade at 14% - nice pools to shock - NFC. Other - all isolated. Rearing Habitat - good in frequent deep pool sections. Spawning Habitat - poor - lacks suitable gravels. Overwintering Habitat - none - seasonal flow, lacks depth

FDIS Reach/Site Summary

BFP FFHI 2002/03 - Pierre/Twain Resampling

Reach # 1.0 | ILP Map # | ILP #

Watershed Code: 480-816400-06800-04500-0000-0000-000-000-000-000-000-000

STREAM REFERENCING

Gazetted Name: **Local Name:**

Watershed Code: 480-816400-06800-04500-0000-0000-000-000-000-000-000-000 **ILP Map #:** **ILP #:**

REACH

Reach #: 1.0 **UTM(Zone/East/North):** 10.316270.6054145 **Sample Type:** Biased

Length (km): .74 **Coupling:** **Magnitude:** **BGC Zone:**

Gradient (%): 10.8 **Confinement:** Confined **Order:** 3 **Open water:**

US Elev (m): 821 **Islands:** **Riparian Vegetation:**

Bars: None ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ **Landuse:**

SITE

Site #: 154 Field UTM 10.317046.6054113 Agency: C016 Crew: SR/MJ Date: 2002/07/04

Site Length (m): 100 GIS UTM 10.317033.6054115 Agency Name: FINS Consulting Ltd.

CHANNEL

No Vis.Ch.: ☐ Intermittent: ☑

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐ Med ☑ High ☐

	Avg	Min	Max	#
Channel Width (m):	1.45	1.3	1.700	6
Wetted Width (m):	0.12	0	0.7	6
Bankfull Depth (m):	0.23	0.2	0.3	3

	Avg	Min	Max	#
Gradient %:	5.50	4	7	4
Pool Depth (m):	0.08	0.08	0.08	1

Temp (C): 8 pH: 9.1 Conductivity: 110

Turbidity.: Turbid ☐ Low ☐ Moderate ☐ Clear ☑

MORPHOLOGY

Bed Material: Dominant: Cobble D95 (cm): 20.00 Bars: Non ☑ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐

Subdominant: Gravels D (cm): 8.00

Channel Pattern: Sinuous Islands: Occasiona

Coupling: Coupled

Confinement: Frequently Confined

Morphology: RP Riffle Pool

DISTURBANCE INDICATORS: O1 ☐ B1 ☐ B2 ☐ B3 ☐ D1 ☐ D2 ☐ D3 ☐

C1 ☐ C2 ☐ C3 ☐ C4 ☑ C5 ☐ S1 ☐ S2 ☐ S3 ☐ S4 ☐ S5 ☐

COVER

Total Cover: Trace

LWD: Few

LWD Dist: Evenly Distributed

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	N	N	N	N	D	S	N
Location: P/S/O:	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☑☐☐	☑☐☐	☐☐☐

FSZ: ☐

Right Bank: Shape: Sloping (g Texture: Fines ☑ Gravel ☐ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐

Left Bank: Shape: V - shape Texture: Fines ☑ Gravel ☐ Cobble ☑ Boulder ☐ Rock ☐ Manmade ☐

Crown Closure 41-70%

Right Bank: Rip.Veg: Shrubs Stage: Not Applicable

Left Bank: Rip.Veg: Stage: Not Applicable

Instream Veg: None ☐ Algae ☑ Moss ☐ Vascular ☐

FEATURES

NID Map	NID	Type	Hgt	Method	Lg	Method	Photo	UTM (Z/E/N)	Method
093K.061	31541	SP		AL		GE	R: F:	10.317003.6053976	GIS

Comments: documented, but confirmed location

FISH

Site Number	Capture Method	Number of Events	Length fished (m)	Total Time	Voltage	Species	Total Fish	Minimum Length (mm)	Maximum Length (mm)
154	EF	1	100	39 sec	600	NFC	0		

Roll# 1, Frame# 1, CD# 1, Image#1, Direction: Upstream, Scale/Comment:cam bag
Roll# 1, Frame# 2, CD# 1, Image#2, Direction: Downstream, Scale/Comment:cam bag
seasonal creek, rages in spring with no apparent INSTREAM COVER to provide fish habitat. site = mouth =UTM. only in 1 shallow pool with no habitat, otherwise nice types of cover when flowing (right). sampled u/s in 1999. already dry now when others at mod-hi flow stage. Overwintering Habitat - none - already dry, no lakes u/s. Spawning Habitat - none - large gravels, cobbles - lacks sufficient flow. Rearing Habitat - poor - only 1 shallow pool, otherwise all dry (seasonal R for 2 wks?)

Reconnaissance (1:20,000) Fish and Fish Habitat Inventory

Resampling in the Pierre and Twain Sub-units 2002/03

Addendum to Pierre and Twain Sub-units Fish Inventory - 1999

• Appendix II: Photographs

Index of Photos Arranged by Roll and Frame
* See Reach/Site Summary for Site Photo Reference Information

Roll #	Frame #	Neg #	CD #	Image #	Site	Watershed Code	Gazetted Name	ILP Map	ILP	Reach	Dir	Owner	Focal Length	Date	Scale/Comments
1	1	1	1	1	154	480-816400-06800-04500				1	U	SITE	STD	2002-07-04	cam bag
1	2	2	1	2	154	480-816400-06800-04500				1	D	SITE	STD	2002-07-04	cam bag
1	3	3	1	3	153	480-816400-06800				2.1	U	SITE	STD	2002-07-04	MJ - cascade/beginning of steep section in features
1	4	4	1	4	153	480-816400-06800				2.1	U	SITE	STD	2002-07-04	cam bag
1	5	5	1	5	153	480-816400-06800				2.1	D	SITE	STD	2002-07-04	probe
1	14	14	1	6	14	480-802100-16400				1	U	SITE	STD	2002-07-06	MJ - note LWD clump
1	15	15	1	7	14	480-802100-16400				1	D	SITE	STD	2002-07-06	cam bag
1	16	16	1	8	15			93K.061	61731	1	U	SITE	STD	2002-07-06	cam bag
1	17	17	1	9	16			93K.061	61734	1	U	SITE	STD	2002-07-06	cam bags
1	18	18	1	10	17			93K.061	61735	1	U	SITE	STD	2002-07-06	MJ
1	19	19	1	11	17			93K.061	61735	1	D	SITE	STD	2002-07-06	cam bag
1	20	20	1	12	17			93K.061	61735	1	U	SITE	STD	2002-07-06	cam bag - BD in features
1	21	21	1	13	19			93K.061	61740	1	U	SITE	STD	2002-07-07	cam bag
1	22	22	1	14	19			93K.061	61740	1	D	SITE	STD	2002-07-07	MJ
2	1	1	1	15	21	480-802100-42400				1	U	SITE	STD	2002-07-07	SR
2	2	2	1	16	21	480-802100-42400				1	D	SITE	STD	2002-07-07	SR
2	3	3	1	17	26	480-802100-42400-09600				1	U	SITE	STD	2002-07-07	cam bag
2	4	4	1	18	26	480-802100-42400-09600				1	D	SITE	STD	2002-07-07	cam bag
2	5	5	1	19	27	480-802100-42400-09600				2	U	SITE	STD	2002-07-07	cam bag
2	6	6	1	20	27	480-802100-42400-09600				2	D	SITE	STD	2002-07-07	cam bag
2	7	7	1	21	22	480-802100-42400				4	BD	SITE	STD	2002-07-07	probe - excellent spawning substrate
2	8	8	1	22	22	480-802100-42400				4	D	SITE	STD	2002-07-07	cam bag
2	9	9	1	23	22	480-802100-42400				4	U	SITE	STD	2002-07-07	SR
2	10	10	1	24	40	480-802100-43000				1	U	SITE	STD	2002-07-07	cam bag
2	11	11	1	25	40	480-802100-43000				1	D	SITE	STD	2002-07-07	MJ
2	12	12	1	26	41			93K.061	61748	1	U	SITE	STD	2002-07-07	cam bag/book
2	13	13	1	27	41			93K.061	61748	1	D	SITE	STD	2002-07-07	cam bag
2	14	14	1	28	44			93K.061	61750	1	U	SITE	STD	2002-07-08	SR
2	15	15	1	29	44			93K.061	61750	1	D	SITE	STD	2002-07-08	cam bag
2	16	16	1	30	42			93K.061	61749	1	U	SITE	STD	2002-07-08	MJ
2	17	17	1	31	42			93K.061	61749	1	D	SITE	STD	2002-07-08	cam bag
2	18	18	1	32	43			93K.061	61749	2	U	SITE	STD	2002-07-08	SR
2	19	19	1	33	28	480-802100-42400-09600				4	U	SITE	STD	2002-07-08	cam bag
2	20	20	1	34	28	480-802100-42400-09600				4	D	SITE	STD	2002-07-08	cam bag
2	21	21	1	35	23	480-802100-42400				4.1	U	SITE	STD	2002-07-08	MJ
2	22	22	1	36	23	480-802100-42400				4.1	D	SITE	STD	2002-07-08	cam bag
2	23	23	1	37	24	480-802100-42400				5	U	SITE	STD	2002-07-08	cam bag
2	24	24	1	38	24	480-802100-42400				5	D	SITE	STD	2002-07-08	cam bag - end of roll
3	1	1	1	39	25	480-802100-42400				6	U	SITE	STD	2002-07-08	cam bag
3	2	2	1	40	25	480-802100-42400				6	D	SITE	STD	2002-07-08	cam bag
3	3	3	1	41	24	480-802100-42400				5	U	SITE	STD	2002-07-08	cam bag - cascade in features
3	5	5	1	42	30	480-802100-42400-54400				1	U	SITE	STD	2002-07-08	cam bag
3	6	6	1	43	30	480-802100-42400-54400				1	D	SITE	STD	2002-07-08	cam bag
3	7	7	1	44	31	480-802100-42400-54400				3	D	SITE	STD	2002-07-08	MJ - stacking photos of BD making pond in r. 3 of -54400
3	8	8	1	45	31	480-802100-42400-54400				3	D	SITE	STD	2002-07-08	none
3	9	9	1	46	34			93L.070	70704	0.1	U	SITE	STD	2002-07-08	MJ
3	10	10	1	47	34			93L.070	70704	0.1	D	SITE	STD	2002-07-08	cam bag - fish photo #3-11
3	11	11	1	48	34			93L.070	70704	0.1	BD	FISH	STD	2002-07-08	Fish Photo
3	12	12	1	49	31	480-802100-42400-54400				3	U	SITE	STD	2002-07-08	cam bag
3	13	13	1	50	31	480-802100-42400-54400				3	D	SITE	STD	2002-07-08	cam bag
3	15	15	1	51	66	480-802100-66400-29800				1	U	SITE	STD	2002-07-09	cam bag
3	16	16	1	52	66	480-802100-66400-29800				1	D	SITE	STD	2002-07-09	cam bag
3	17	17	1	53	65			93L.060	60730	1	U	SITE	STD	2002-07-09	cam bag

Index of Photos Arranged by Roll and Frame
* See Reach/Site Summary for Site Photo Reference Information

Roll #	Frame #	Neg #	CD #	Image #	Site	Watershed Code	Gazetted Name	ILP Map	ILP	Reach	Dir	Owner	Focal Length	Date	Scale/Comments
3	18	18	1	54	55			93L.060	60714	1	D	SITE	STD	2002-07-09	no scale
3	19	19	1	55	55			93L.060	60714	1	U	SITE	STD	2002-07-09	cam bag
3	20	20	1	56	9	480-802100	Pierre C.			16	D	SITE	STD	2002-07-09	SR
3	21	21	1	57	9	480-802100	Pierre C.			16	U	SITE	STD	2002-07-09	SR
3	22	22	1	58	51	480-802100-64500				1	U	SITE	STD	2002-07-09	tape - BD in features
3	23	23	1	59	51	480-802100-64500				1	X	SITE	STD	2002-07-09	no scale - 2nd BD in features
3	24	24	1	60	51	480-802100-64500				1	U	SITE	STD	2002-07-09	cam bag - channel in W/meadow
3	25	25	1	61	51	480-802100-64500				1	U	SITE	STD	2002-07-09	cam bag - channel near Pierre C.
4	1	1	1	62	47			93L.060	60710	1	U	SITE	STD	2002-07-09	cam bag
4	2	2	1	63	47			93L.060	60710	1	D	SITE	STD	2002-07-09	cam bag
4	3	3	1	64	47			93L.060	60710	1	U	SITE	STD	2002-07-09	cam bag - cascade in features
4	4	4	1	65	48			93L.060	60711	0.1	U	SITE	STD	2002-07-09	cam bag
4	5	5	1	66	48			93L.060	60711	0.1	D	SITE	STD	2002-07-09	cam bag
4	6	6	1	67	48			93L.060	60711	0.1	U	SITE	STD	2002-07-09	cam bag - FSB in features
4	7	7	1	68	49			93L.060	60711	1	U	SITE	STD	2002-07-09	cam bag
4	8	8	1	69	49			93L.060	60711	1	D	SITE	STD	2002-07-09	cam bag
4	9	9	1	70	46			93L.060	60709	1	U	SITE	STD	2002-07-09	cam bag
4	10	10	1	71	45			93L.060	60708	1	U	SITE	STD	2002-07-09	cam bag
5	1	1	1	72	36			93L.070	70705	1	U	SITE	STD	2002-07-23	boot
5	2	2	1	73	35			93L.070	70704	1	D	SITE	STD	2002-07-23	cam bag - no channel
5	3	3	1	74	35			93L.070	70704	1	U	SITE	STD	2002-07-23	cam bag - "pool"
5	4	4	1	75	37			93L.070	70706	0.1	U	SITE	STD	2002-07-23	cam bag
5	5	5	1	76	37			93L.070	70706	0.1	D	SITE	STD	2002-07-23	cam bag
5	6	6	1	77	37			93L.070	70706	0.1	U	SITE	STD	2002-07-23	cam bag - falls in features
5	7	7	1	78	38			93L.070	70706	1	U	SITE	STD	2002-07-23	cam bag - showing cobble channel area
5	8	8	1	79	38			93L.070	70706	1	D	SITE	STD	2002-07-23	cam bag - showing impounded water area
5	9	9	1	80	32	480-802100-42400-54400				3.1	U	SITE	STD	2002-07-23	probe - cobble channel section
5	10	10	1	81	32	480-802100-42400-54400				3.1	D	SITE	STD	2002-07-23	cam bag - cobble channel section
5	11	11	1	82	32	480-802100-42400-54400				3.1	U	SITE	STD	2002-07-23	lower gradient pooled water section = repeating sequence over fines/detritus
5	12	12	1	83	32	480-802100-42400-54400				3.1	U	SITE	STD	2002-07-23	SR - cascade in features = EFU
5	13	13	1	84	33	480-802100-42400-54400				4	U	SITE	STD	2002-07-23	cam bag
5	14	14	1	85	33	480-802100-42400-54400				4	D	SITE	STD	2002-07-23	cam bag
5	15	15	1	86	107			93L.060	60800	1	U	SITE	STD	2002-07-23	cam bag - note subflow
5	16	16	1	87	107			93L.060	60800	1	D	SITE	STD	2002-07-23	cam bag - note organic steps
5	17	17	1	88	10	480-802100	Pierre C.			17	U	SITE	STD	2002-07-23	SR
5	18	18	1	89	10	480-802100	Pierre C.			17	D	SITE	STD	2002-07-23	dog
5	19	19	1	90	108			93L.070	70718	1	U	SITE	STD	2002-07-23	MJ
5	20	20	1	91	109			93L.070	70719	1	D	SITE	STD	2002-07-23	SR - channel at mouth
5	21	21	1	92	109			93L.070	70719	1	U	SITE	STD	2002-07-23	cam bag - NCD'ish section
5	22	22	1	93	72			93L.060	60731	1	U	SITE	STD	2002-07-24	cam bag
5	23	23	1	94	72			93L.060	60731	1	D	SITE	STD	2002-07-24	cam bag
5	24	24	1	95	73			93L.060	60732	1	U	SITE	STD	2002-07-24	cam bag - shows lack of continuous channel
5	25	25	1	96	73			93L.060	60732	1	D	SITE	STD	2002-07-24	cam bag - channelized section
6	1	1	1	97	67	480-802100-66400-29800				2	U	SITE	STD	2002-07-24	cam bag - typical channel
6	2	2	1	98	67	480-802100-66400-29800				2	D	SITE	STD	2002-07-24	dog - typical pool
6	3	3	1	99	68	480-802100-66400-29800				3	U	SITE	STD	2002-07-24	cam bag
6	4	4	1	100	68	480-802100-66400-29800				3	D	SITE	STD	2002-07-24	cam bag
6	5	5	2	101	74			93L.060	60733	1	U	SITE	STD	2002-07-24	cam bag
6	6	6	2	102	77			93L.060	60734	1	U	SITE	STD	2002-07-24	cam bag
6	7	7	2	103	78			93L.060	60735	1	U	SITE	STD	2002-07-24	cam bag - dry "channel"
6	8	8	2	104	75	480-802100-66400-29800-6750				1	U	SITE	STD	2002-07-24	cam bag
6	9	9	2	105	75	480-802100-66400-29800-6750				1	D	SITE	STD	2002-07-24	cam bag

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Roll #	Frame #	Neg #	CD #	Image #	Site	Watershed Code	Gazetted Name	ILP Map	ILP	Reach	Dir	Owner	Focal Length	Date	Scale/Comments
6	10	10	2	106	76	480-802100-66400-29800-6750				2	U	SITE	STD	2002-07-24	dog - creek source - bog
6	11	11	2	107	76	480-802100-66400-29800-6750				2	D	SITE	STD	2002-07-24	cam bag
6	12	12	2	108	81			93L.060	60739	1	U	SITE	STD	2002-07-24	cam bag
6	13	13	2	109	71	480-802100-66400-29800				9	U	SITE	STD	2002-07-24	cam bag
6	14	14	2	110	71	480-802100-66400-29800				9	D	SITE	STD	2002-07-24	cam bag
6	15	15	2	111	70	480-802100-66400-29800				8	U	SITE	STD	2002-07-24	MJ
6	16	16	2	112	70	480-802100-66400-29800				8	D	SITE	STD	2002-07-24	cam bag
6	17	17	2	113	80			93L.060	60738	1	U	SITE	STD	2002-07-24	cam bag
6	18	18	2	114	69	480-802100-66400-29800				6	U	SITE	STD	2002-07-24	cam bag
6	19	19	2	115	69	480-802100-66400-29800				6	D	SITE	STD	2002-07-24	cam bag
6	20	20	2	116	79			93L.060	60736	2	U	SITE	STD	2002-07-24	cam bag
6	21	21	2	117	79			93L.060	60736	2	D	SITE	STD	2002-07-24	cam bag
6	22	22	2	118	82			93L.060	60741	1	U	SITE	STD	2002-07-25	vest
6	23	23	2	119	82			93L.060	60741	1	U	SITE	STD	2002-07-25	cam bag - almost channelized
6	24	24	2	120	87			93L.060	60743	1	U	SITE	STD	2002-07-25	view from "mouth", MJ standing at lake outlet
6	25	25	2	121	83			93L.060	60742	1	U	SITE	STD	2002-07-25	cam bag
7	1	1	2	122	83			93L.060	60742	1	D	SITE	STD	2002-07-25	cam bag
7	2	2	2	123	88			93L.060	60744	0.1	D	SITE	STD	2002-07-25	cam bag
7	3	3	2	124	88			93L.060	60744	0.1	U	SITE	STD	2002-07-25	no scale
7	4	4	2	125	89			93L.060	60744	1	D	SITE	STD	2002-07-25	cam bag
7	5	5	2	126	89			93L.060	60744	1	U	SITE	STD	2002-07-25	cam bag
7	6	6	2	127	90			93L.060	60745	1	U	SITE	STD	2002-07-25	cam bag
7	7	7	2	128	84			93L.060	60742	2	U	SITE	STD	2002-07-25	probe
7	8	8	2	129	84			93L.060	60742	2	D	SITE	STD	2002-07-25	cam bag
7	9	9	2	130	91			93L.060	60746	2	U	SITE	STD	2002-07-25	cam bag - no more photos necessary - can't see channel
7	10	10	2	131	91			93L.060	60746	2	U	SITE	STD	2002-07-25	cam bag - falls in features
7	11	11	2	132	85			93L.060	60742	5	U	SITE	STD	2002-07-25	cam bag
7	12	12	2	133	85			93L.060	60742	5	D	SITE	STD	2002-07-25	cam bag
7	13	13	2	134	86			93L.060	60742	6	D	SITE	STD	2002-07-25	SR
7	14	14	2	135	86			93L.060	60742	6	U	SITE	STD	2002-07-25	dog - lake in background
7	15	15	2	136	102			93L.060	60754	1	U	SITE	STD	2002-07-25	cam bag
7	16	16	2	137	53	480-802100-66400				10	U	SITE	STD	2002-07-25	cam bag - forested area
7	17	17	2	138	53	480-802100-66400				10	D	SITE	STD	2002-07-25	cam bag - shrubby area
7	18	18	2	139	54	480-802100-66400				12	X	SITE	STD	2002-07-25	cam bag
7	19	19	2	140	106			93L.060	60758	1	U	SITE	STD	2002-07-25	no scale - squishy meadow
7	20	20	2	141	104			93L.060	60756	2	U	SITE	STD	2002-07-26	dog
7	21	21	2	142	104			93L.060	60756	2	D	SITE	STD	2002-07-26	cam bag
7	22	22	2	143	101			93L.060	60753	1	D	SITE	STD	2002-07-26	SR
7	23	23	2	144	100			93L.060	60752	1	U	SITE	STD	2002-07-26	cam bag
7	24	24	2	145	52	480-802100-66400				8	U	SITE	STD	2002-07-26	MJ
7	25	25	2	146	52	480-802100-66400				8	D	SITE	STD	2002-07-26	dog
8	1	1	2	147	99			93L.060	60751	1	U	SITE	STD	2002-07-26	MJ - channelized section
8	2	2	2	148	99			93L.060	60751	1	D	SITE	STD	2002-07-26	cam bag
8	3	3	2	149	92	480-802100-66400-72600				1	U	SITE	STD	2002-07-26	SR
8	4	4	2	150	92	480-802100-66400-72600				1	D	SITE	STD	2002-07-26	MJ
8	5	5	2	151	96			93L.060	60747	2	U	SITE	STD	2002-07-26	cam bag
8	6	6	2	152	96			93L.060	60747	2	D	SITE	STD	2002-07-26	cam bag
8	7	7	2	153	95			93L.060	60747	1	U	SITE	STD	2002-07-26	cam bag
8	8	8	2	154	95			93L.060	60747	1	D	SITE	STD	2002-07-26	cam bag
8	9	9	2	155	93	480-802100-66400-72600				2	U	SITE	STD	2002-07-26	SR
8	10	10	2	156	93	480-802100-66400-72600				2	D	SITE	STD	2002-07-26	cam bag
8	11	11	2	157	97			93L.060	60748	1	U	SITE	STD	2002-07-26	cam bag - cascacle in features
8	12	12	2	158	97			93L.060	60748	1	D	SITE	STD	2002-07-26	boot

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Roll #	Frame #	Neg #	CD #	Image #	Site	Watershed Code	Gazetted Name	ILP Map	ILP	Reach	Dir	Owner	Focal Length	Date	Scale/Comments
8	13	13	2	159	98			93L.060	60749	1	X	SITE	STD	2002-07-26	no scale - visible W on left and embankment on right
8	14	14	2	160	94	480-802100-66400-72600				4	U	SITE	STD	2002-07-26	MJ
8	15	15	2	161	63			93L.060	60724	1	U	SITE	STD	2002-07-26	cam bag
8	16	16	2	162	57			93L.060	60715	7	U	SITE	STD	2002-07-26	cam bag
8	17	17	2	163	64			93L.060	60727	1	U	SITE	STD	2002-07-26	cam bag
8	18	18	2	164	64			93L.060	60727	1	D	SITE	STD	2002-07-26	cam bag
8	19	19	2	165	62			93L.060	60723	1	U	SITE	STD	2002-07-26	notebook
8	20	20	2	166	61			93L.060	60722	1	X	SITE	STD	2002-07-26	no scale
9	20	20	2	191	58			93L.060	60716	1	D	SITE	STD	2002-07-29	cam bag
9	21	21	2	192	58			93L.060	60716	1	U	SITE	STD	2002-07-29	cam bag
9	22	22	2	193	60			93L.060	60721	1	U	SITE	STD	2002-07-29	SR
9	23	23	2	194	59			93L.060	60718	1	D	SITE	STD	2002-07-29	SR
9	24	24	2	195	111	480-802100-79900				5	U	SITE	STD	2002-07-29	cam bag
9	25	25	2	196	111	480-802100-79900				5	D	SITE	STD	2002-07-29	cam bag
10	1	1	2	197	115			93L.070	70721	1	D	SITE	STD	2002-07-29	cam bag - 10m from "mouth" facing parent pond
10	2	2	2	198	117			93L.070	70723	1	D	SITE	STD	2002-07-29	MJ - parent stream in background
10	3	3	2	199	112	480-802100-79900				7	U	SITE	STD	2002-07-29	MJ
10	4	4	2	200	112	480-802100-79900				7	D	SITE	STD	2002-07-29	cam bag
10	5	5	3	201	116			93L.070	70722	2	U	SITE	STD	2002-07-29	cam bag
10	6	6	3	202	118			93L.070	70725	1	U	SITE	STD	2002-07-29	cam bag - note stranded, dead CT beside cam bag
10	7	7	3	203	118			93L.070	70725	1	D	SITE	STD	2002-07-29	cam bag
10	8	8	3	204	119			93L.070	70725	2	U	SITE	STD	2002-07-29	cam bag
10	9	9	3	205	119			93L.070	70725	2	D	SITE	STD	2002-07-29	cam bag
10	10	10	3	206	120			93L.070	70726	1	U	SITE	STD	2002-07-29	no scale
10	11	11	3	207	121			93L.070	70727	1	D	SITE	STD	2002-07-29	cam bag - showing NCD'ish nature
10	12	12	3	208	121			93L.070	70727	1	U	SITE	STD	2002-07-29	cam bag - showing channelized section
10	13	13	3	209	122			93L.070	70728	1	U	SITE	STD	2002-07-29	cam bag
10	14	14	3	210	124			93L.070	70730	1	U	SITE	STD	2002-07-29	MJ - cascade/chute in features
10	15	15	3	211	124			93L.070	70730	1	U	SITE	STD	2002-07-29	dog
10	16	16	3	212	124			93L.070	70730	1	D	SITE	STD	2002-07-29	cam bag
10	17	17	3	213	113	480-802100-79900				8	U	SITE	STD	2002-07-30	SR
10	18	18	3	214	113	480-802100-79900				8	D	SITE	STD	2002-07-30	cam bag
10	19	19	3	215	114	480-802100-79900				9	U	SITE	STD	2002-07-30	MJ
10	20	20	3	216	126			93L.070	70732	1	U	SITE	STD	2002-07-30	cam bag
10	21	21	3	217	125			93L.070	70732	0.1	U	SITE	STD	2002-07-30	book
10	22	22	3	218	125			93L.070	70732	0.1	D	SITE	STD	2002-07-30	cam bag
10	23	23	3	219	127			93L.070	70735	1	U	SITE	STD	2002-07-30	cam bag
10	24	24	3	220	127			93L.070	70735	1	D	SITE	STD	2002-07-30	cam bag
10	25	25	3	221	128			93L.070	70736	1	U	SITE	STD	2002-07-30	cam bag
11	1	1	3	222	129			93L.070	70737	1	D	SITE	STD	2002-07-30	MJ - overview
11	2	2	3	223	130			93L.070	70738	1	U	SITE	STD	2002-07-30	cam bag
11	3	3	3	224	130			93L.070	70738	1	D	SITE	STD	2002-07-30	cam bag
11	4	4	3	225	131			93L.070	70739	1	D	SITE	STD	2002-07-30	MJ
11	5	5	3	226	132			93L.070	70740	1	U	SITE	STD	2002-07-30	dog
11	6	6	3	227	133			93L.070	70741	1	U	SITE	STD	2002-07-30	MJ
11	7	7	3	228	134			93L.070	70742	2	U	SITE	STD	2002-07-30	cam bag
11	8	8	3	229	134			93L.070	70742	2	D	SITE	STD	2002-07-30	MJ
11	9	9	3	230	143			93L.070	70751	2	U	SITE	STD	2002-07-30	cam bag
11	10	10	3	231	143			93L.070	70751	2	D	SITE	STD	2002-07-30	cam bag
11	11	11	3	232	142			93L.070	70750	3	U	SITE	STD	2002-07-30	cam bag
11	12	12	3	233	147			93L.070	70757	1	U	SITE	STD	2002-07-30	SR
11	13	13	3	234	11	480-802100	Pierre C.			23	U	SITE	STD	2002-07-30	cam bag
11	14	14	3	235	151			93L.070	70760	0.1	U	SITE	STD	2002-07-30	SR

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Roll #	Frame #	Neg #	CD #	Image #	Site	Watershed Code	Gazetted Name	ILP Map	ILP	Reach	Dir	Owner	Focal Length	Date	Scale/Comments
11	15	15	3	236	151			93L.070	70760	0.1	D	SITE	STD	2002-07-30	cam bag
11	16	16	3	237	136			93L.070	70746	1	U	SITE	STD	2002-07-31	cam bag
11	17	17	3	238	136			93L.070	70746	1	D	SITE	STD	2002-07-31	cam bag
11	18	18	3	239	139			93L.070	70747	1	U	SITE	STD	2002-07-31	cam bag - note narrow, shallow organic channel
11	19	19	3	240	139			93L.070	70747	1	D	SITE	STD	2002-07-31	cam bag
11	20	20	3	241	140			93L.070	70747	2	U	SITE	STD	2002-07-31	dog
11	21	21	3	242	137			93L.070	70746	2	U	SITE	STD	2002-07-31	cam bag
11	22	22	3	243	137			93L.070	70746	2	D	SITE	STD	2002-07-31	cam bag
11	23	23	3	244	141			93L.070	70748	1	U	SITE	STD	2002-07-31	SR
11	24	24	3	245	138			93L.070	70746	3	U	SITE	STD	2002-07-31	SR
11	25	25	3	246	145			93L.070	70754	1	U	SITE	STD	2002-07-31	dog - cobble collection - note lack of channel in background
12	1	1	3	247	144			93L.070	70753	1	U	SITE	STD	2002-07-31	cam bag - shows morphology?
12	2	2	3	248	146			93L.070	70756	1	U	SITE	STD	2002-07-31	probe = start of reach 1 = EFU = NOD
12	3	3	3	249	148			93L.070	70758	1	U	SITE	STD	2002-07-31	cam bag
12	4	4	3	250	148			93L.070	70758	1	D	SITE	STD	2002-07-31	cam bag
12	5	5	3	251	150			93L.070	70759	1	U	SITE	STD	2002-07-31	cam bag
12	6	6	3	252	149			93L.070	70758	2	U	SITE	STD	2002-07-31	MJ
12	7	7	3	253	152			93L.070	70760	1	D	SITE	STD	2002-07-31	MJ
12	8	8	3	254	152			93L.070	70760	1	U	SITE	STD	2002-07-31	cam bag
15	3	3	4	325	1			93K.061	61702	1	U	SITE	STD	2002-08-15	cam bag
15	4	4	4	326	1			93K.061	61702	1	D	SITE	STD	2002-08-15	MJ
15	5	5	4	327	3			93K.061	61705	2	U	SITE	STD	2002-08-15	cam bag
15	6	6	4	328	3			93K.061	61705	2	D	SITE	STD	2002-08-15	cam bag
15	7	7	4	329	2			93K.061	61705	1	U	SITE	STD	2002-08-15	Cam bag
15	8	8	4	330	2			93K.061	61705	1	D	SITE	STD	2002-08-15	Cam bag
15	9	9	4	331	5	480-793000-13100-30021				1	U	SITE	STD	2002-08-15	boot
15	10	10	4	332	5	480-793000-13100-30021				1	D	SITE	STD	2002-08-15	cam bag
15	11	11	4	333	6			93K.061	61713	1	U	SITE	STD	2002-08-15	cam bag
15	12	12	4	334	6			93K.061	61713	1	D	SITE	STD	2002-08-15	boot
15	13	13	4	335	4	480-793000-13100				4	BD	SITE	STD	2002-08-15	cam bag
15	14	14	4	336	4	480-793000-13100				4	D	SITE	STD	2002-08-15	cam bag
15	15	15	4	337	12	480-802100-03500				2	U	SITE	STD	2002-08-16	cam bag
15	16	16	4	338	12	480-802100-03500				2	D	SITE	STD	2002-08-16	cam bag
15	17	17	4	339	12	480-802100-03500				2	D	SITE	STD	2002-08-16	fish photo - in Pierre C. at mouth


R1 F1 WSC 480-816400-06800-04500 Reach 1 Site 154 - u/s view

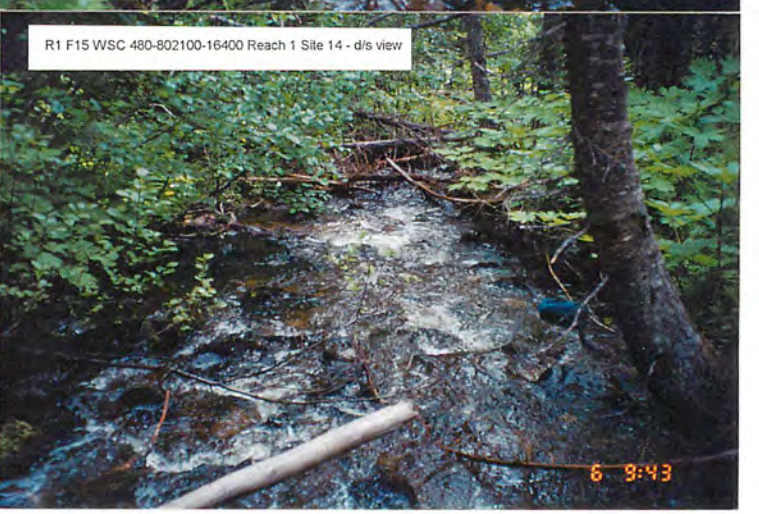

R1 F2 WSC 480-816400-06800-04500 Reach 1 Site 154 - d/s view


R1 F3 WSC 480-816400-06800 Reach 2.1 Site 153 - u/s view


R1 F4 WSC 480-816400-06800 Reach 2.1 Site 153 - u/s view


R1 F5 WSC 480-816400-06800 Reach 2.1 Site 153 - d/s view


R1 F14 WSC 480-802100-16400 Reach 1 Site 14 - u/s view


R1 F15 WSC 480-802100-16400 Reach 1 Site 14 - d/s view


R1 F16 ILP 61731 Reach 1 Site 15 - u/s view


R1 F17 ILP 61734 Reach 1 Site 16 - u/s view


R1 F18 ILP 61735 Reach 1 Site 17 - u/s view


R1 F19 ILP 61735 Reach 1 Site 17 - d/s view


R1 F20 ILP 61735 Reach 1 Site 17 - u/s view


R1 F21 ILP 61740 Reach 1 Site 19 - u/s view


R1 F22 ILP 61740 Reach 1 Site 19 - d/s view


R2 F1 WSC 480-802100-42400 Reach 1 Site 21 - u/s view


R2 F2 WSC 480-802100-42400 Reach 1 Site 21 - d/s view


R2 F3 WSC 480-802100-42400-09600 Reach 1 Site 26 - u/s view


R2 F4 WSC 480-802100-42400-09600 Reach 1 Site 26 - d/s view


R2 F5 WSC 480-802100-42400-09600 Reach 2 Site 27 - u/s view


R2 F6 WSC 480-802100-42400-09600 Reach 2 Site 27 - d/s view


R2 F7 WSC 480-802100-42400 Reach 4 Site 22 - bed view


R2 F8 WSC 480-802100-42400 Reach 4 Site 22 - d/s view


R2 F9 WSC 480-802100-42400 Reach 4 Site 22 - u/s view


R2 F10 WSC 480-802100-43000 Reach 1 Site 40 - u/s view


R2 F11 WSC 480-802100-43000 Reach 1 Site 40 - d/s view


R2 F12 ILP 61748 Reach 1 Site 41 - u/s view


R2 F13 ILP 61748 Reach 1 Site 41 - d/s view


R2 F14 ILP 61750 Reach 1 Site 44 - u/s view


R2 F15 ILP 61750 Reach 1 Site 44 - d/s view


R2 F16 ILP 61749 Reach 1 Site 42 - u/s view


R2 F17 ILP 61749 Reach 1 Site 42 - d/s view


R2 F18 ILP 61749 Reach 2 Site 43 - u/s view


R2 F19 WSC 480-802100-42400-09600 Reach 4 Site 28 - u/s view


R2 F20 WSC 480-802100-42400-09600 Reach 4 Site 28 - d/s view


R2 F21 WSC 480-802100-42400 Reach 4.1 Site 23 - u/s view


R2 F22 WSC 480-802100-42400 Reach 4.1 Site 23 - d/s view


R2 F23 WSC 480-802100-42400 Reach 5 Site 24 - u/s view


R2 F24 WSC 480-802100-42400 Reach 5 Site 24 - d/s view

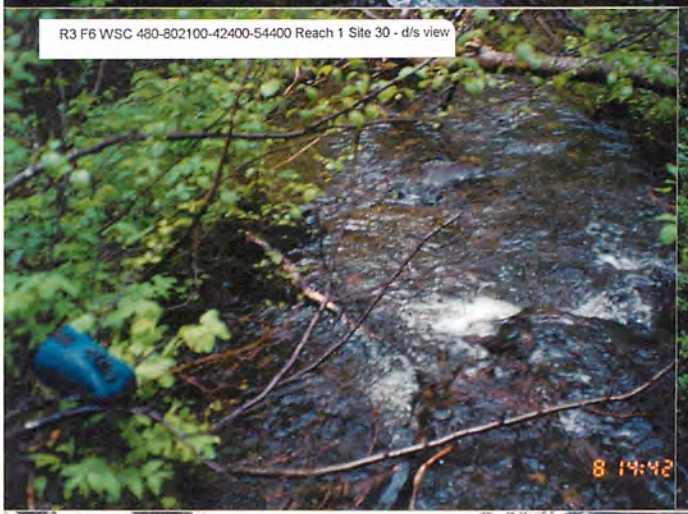

R3 F1 WSC 480-802100-42400 Reach 6 Site 25 - u/s view

R3 F2 WSC 480-802100-42400 Reach 6 Site 25 - d/s view

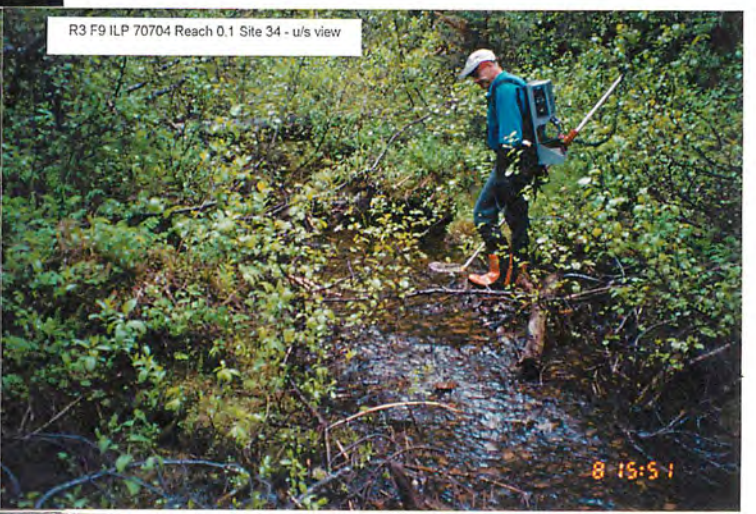
R3 F3 WSC 480-802100-42400 Reach 5 Site 24 - u/s view

R3 F5 WSC 480-802100-42400-54400 Reach 1 Site 30 - u/s view

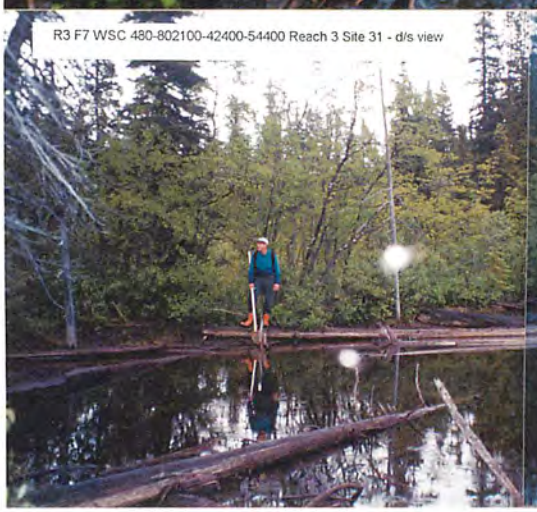
R3 F6 WSC 480-802100-42400-54400 Reach 1 Site 30 - d/s view



R3 F9 ILP 70704 Reach 0.1 Site 34 - u/s view



R3 F7 WSC 480-802100-42400-54400 Reach 3 Site 31 - d/s view

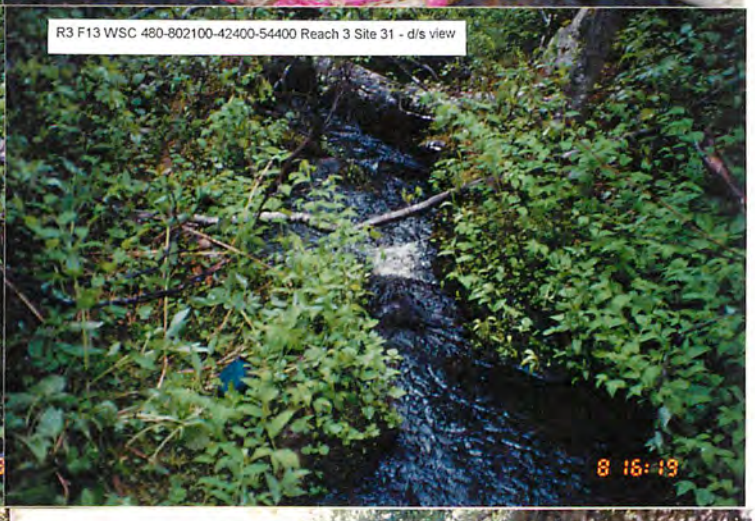


R3 F8 WSC 480-802100-42400-54400 Reach 3 Site 31 - d/s view


R3 F10 ILP 70704 Reach 0.1 Site 34 - d/s view


R3 F11 ILP 70704 Reach 0.1 Site 34 - Fish Photo

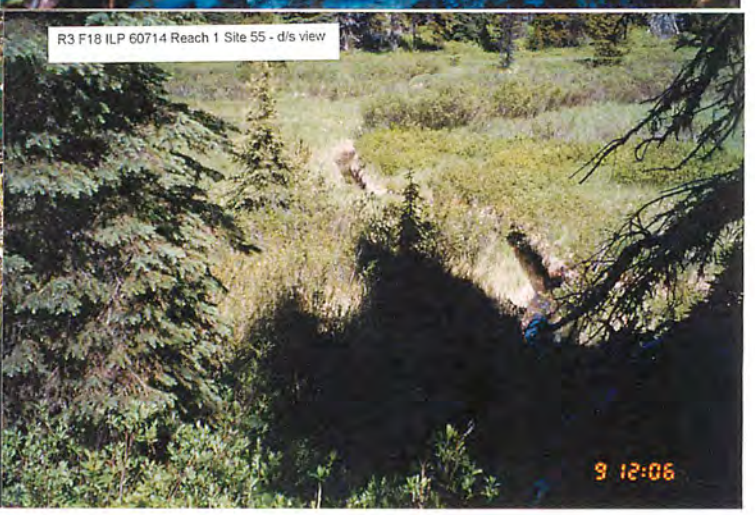

R3 F12 WSC 480-802100-42400-54400 Reach 3 Site 31 - u/s view


R3 F13 WSC 480-802100-42400-54400 Reach 3 Site 31 - d/s view


R3 F15 WSC 480-802100-66400-29800 Reach 1 Site 66 - u/s view

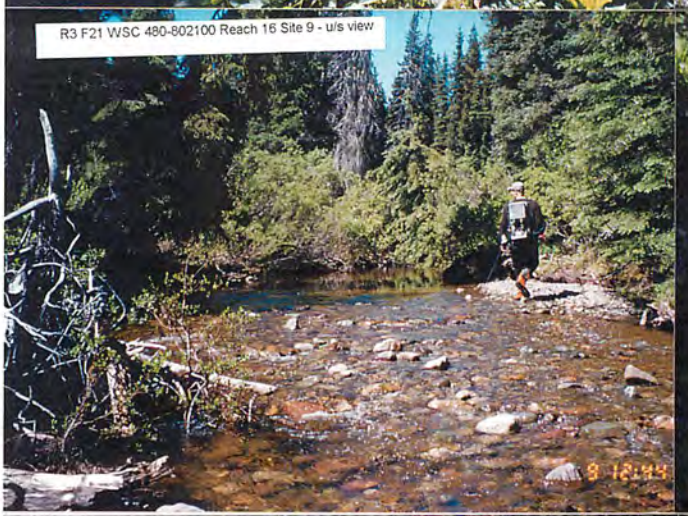

R3 F16 WSC 480-802100-66400-29800 Reach 1 Site 66 - d/s view

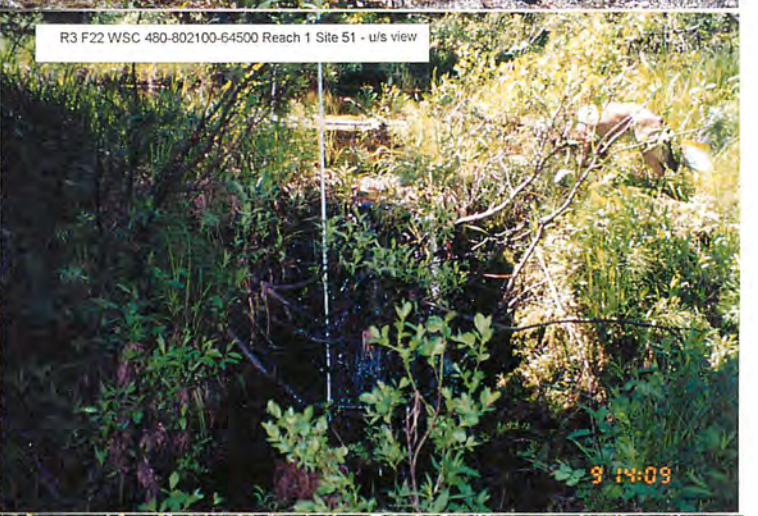

R3 F17 ILP 60730 Reach 1 Site 65 - u/s view


R3 F18 ILP 60714 Reach 1 Site 55 - d/s view


R3 F19 ILP 60714 Reach 1 Site 55 - u/s view


R3 F20 WSC 480-802100 Reach 16 Site 9 - d/s view


R3 F21 WSC 480-802100 Reach 16 Site 9 - u/s view


R3 F22 WSC 480-802100-64500 Reach 1 Site 51 - u/s view


R3 F23 WSC 480-802100-64500 Reach 1 Site 51 - across view


R3 F24 WSC 480-802100-64500 Reach 1 Site 51 - u/s view


R3 F25 WSC 480-802100-64500 Reach 1 Site 51 - u/s view


R4 F1 ILP 60710 Reach 1 Site 47 - u/s view


R4 F2 ILP 60710 Reach 1 Site 47 - d/s view


R4 F3 ILP 60710 Reach 1 Site 47 - u/s view


R4 F4 ILP 60711 Reach 0.1 Site 48 - u/s view


R4 F5 ILP 60711 Reach 0.1 Site 48 - d/s view

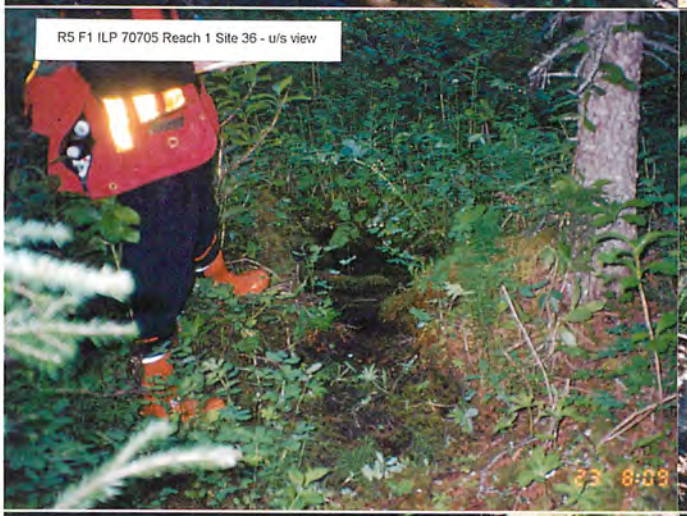

R4 F6 ILP 60711 Reach 0.1 Site 48 - u/s view


R4 F7 ILP 60711 Reach 1 Site 49 - u/s view


R4 F8 ILP 60711 Reach 1 Site 49 - d/s view


R4 F9 ILP 60709 Reach 1 Site 46 - u/s view
9 16:19


R4 F10 ILP 60708 Reach 1 Site 45 - u/s view
9 16:29

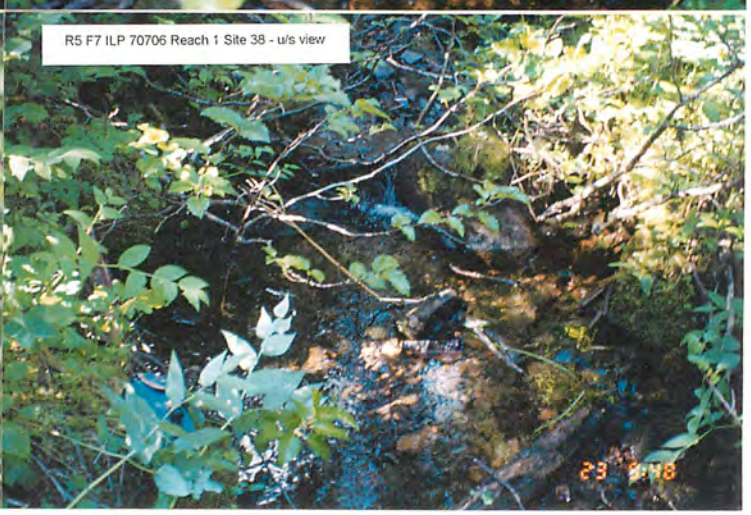

R5 F1 ILP 70705 Reach 1 Site 36 - u/s view
23 8:09


R5 F2 ILP 70704 Reach 1 Site 35 - d/s view


R5 F3 ILP 70704 Reach 1 Site 35 - u/s view
23 8:44


R5 F4 ILP 70706 Reach 0.1 Site 37 - u/s view
23 9:18

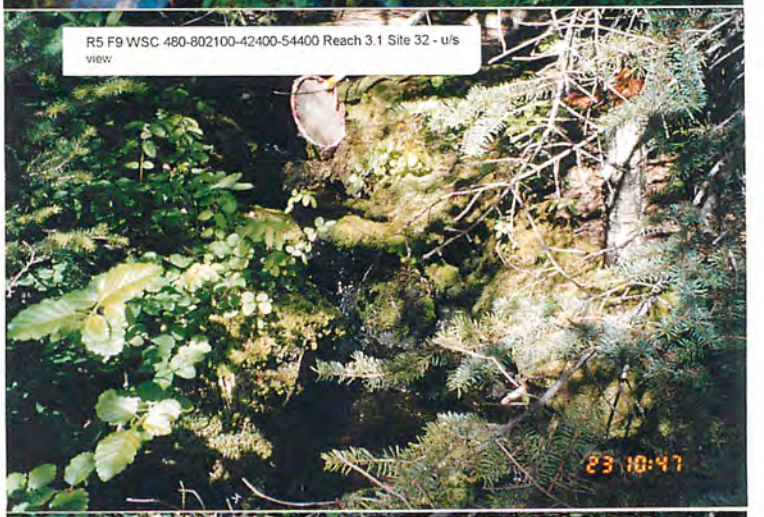

R5 F5 ILP 70706 Reach 0.1 Site 37 - d/s view


R5 F7 ILP 70706 Reach 1 Site 38 - u/s view

R5 F6 ILP 70706 Reach 0.1 Site 37 - u/s view

R5 F8 ILP 70706 Reach 1 Site 38 - d/s view

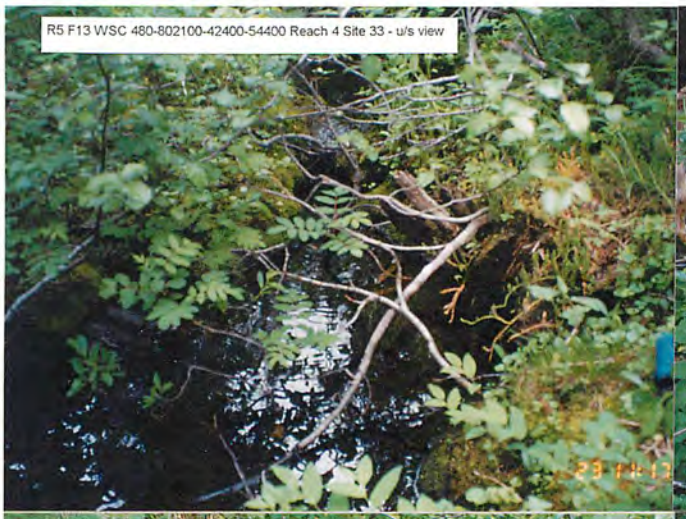
R5 F9 WSC 480-802100-42400-54400 Reach 3.1 Site 32 - u/s view



R5 F10 WSC 480-802100-42400-54400 Reach 3.1 Site 32 - d/s view

R5 F12 WSC 480-802100-42400-54400 Reach 3.1 Site 32 - u/s view

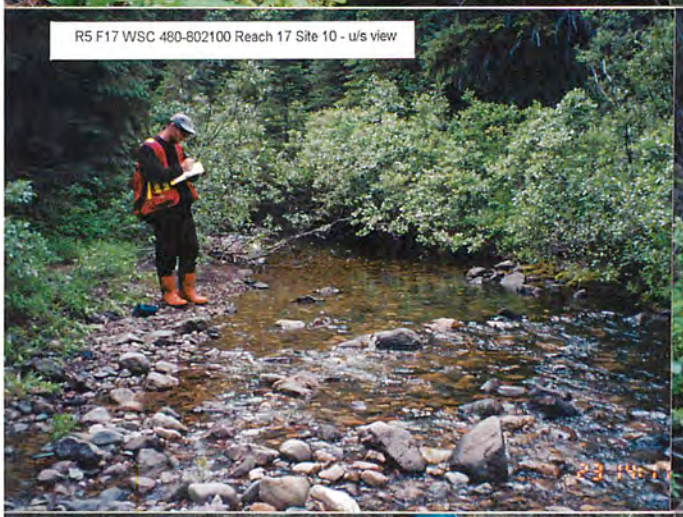
R5 F11 WSC 480-802100-42400-54400 Reach 3.1 Site 32 - u/s view


R5 F13 WSC 480-802100-42400-54400 Reach 4 Site 33 - u/s view


R5 F14 WSC 480-802100-42400-54400 Reach 4 Site 33 - d/s view


R5 F15 ILP 60800 Reach 1 Site 107 - u/s view


R5 F16 ILP 60800 Reach 1 Site 107 - d/s view


R5 F17 WSC 480-802100 Reach 17 Site 10 - u/s view

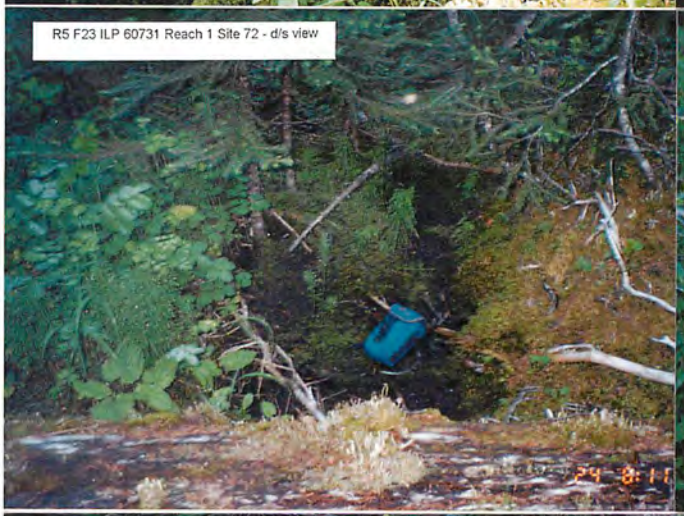

R5 F18 WSC 480-802100 Reach 17 Site 10 - d/s view


R5 F19 ILP 70718 Reach 1 Site 108 - u/s view


R5 F20 ILP 70719 Reach 1 Site 109 - d/s view


R5 F21 ILP 70719 Reach 1 Site 109 - u/s view


R5 F22 ILP 60731 Reach 1 Site 72 - u/s view


R5 F23 ILP 60731 Reach 1 Site 72 - d/s view


R5 F24 ILP 60732 Reach 1 Site 73 - u/s view


R5 F25 ILP 60732 Reach 1 Site 73 - d/s view


R6 F1 WSC 480-802100-66400-29800 Reach 2 Site 67 - u/s view


R6 F2 WSC 480-802100-66400-29800 Reach 2 Site 67 - d/s view

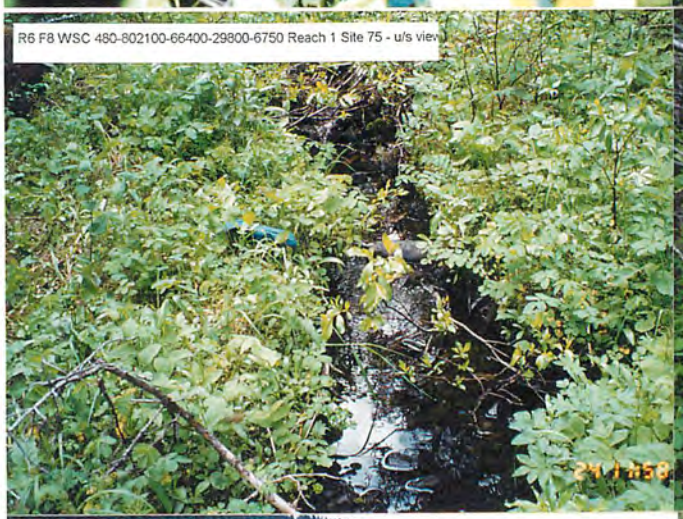

R6 F3 WSC 480-802100-66400-29800 Reach 3 Site 68 - u/s view

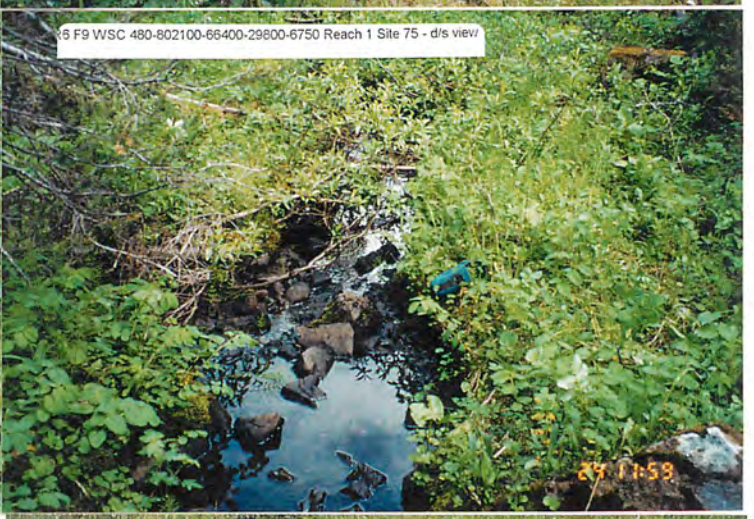

R6 F4 WSC 480-802100-66400-29800 Reach 3 Site 68 - d/s view


R6 F5 ILP 60733 Reach 1 Site 74 - u/s view


R6 F6 ILP 60734 Reach 1 Site 77 - u/s view


R6 F7 ILP 60735 Reach 1 Site 78 - u/s view


R6 F8 WSC 480-802100-66400-29800-6750 Reach 1 Site 75 - u/s view


R6 F9 WSC 480-802100-66400-29800-6750 Reach 1 Site 75 - d/s view


R6 F10 WSC 480-802100-66400-29800-6750 Reach 2 Site 76 - u/s view


R6 F11 WSC 480-802100-66400-29800-6750 Reach 2 Site 76 - d/s view


R6 F12 ILP 60739 Reach 1 Site 81 - u/s view


R6 F13 WSC 480-802100-66400-29800 Reach 9 Site 71 - u/s view


R6 F14 WSC 480-802100-66400-29800 Reach 9 Site 71 - d/s view


R6 F15 WSC 480-802100-66400-29800 Reach 8 Site 70 - u/s view


R6 F16 WSC 480-802100-66400-29800 Reach 8 Site 70 - d/s view


R6 F17 ILP 60738 Reach 1 Site 80 - u/s view


R6 F18 WSC 480-802100-66400-29800 Reach 6 Site 69 - u/s view


R6 F19 WSC 480-802100-66400-29800 Reach 6 Site 69 - d/s view


R6 F20 ILP 60736 Reach 2 Site 79 - u/s view

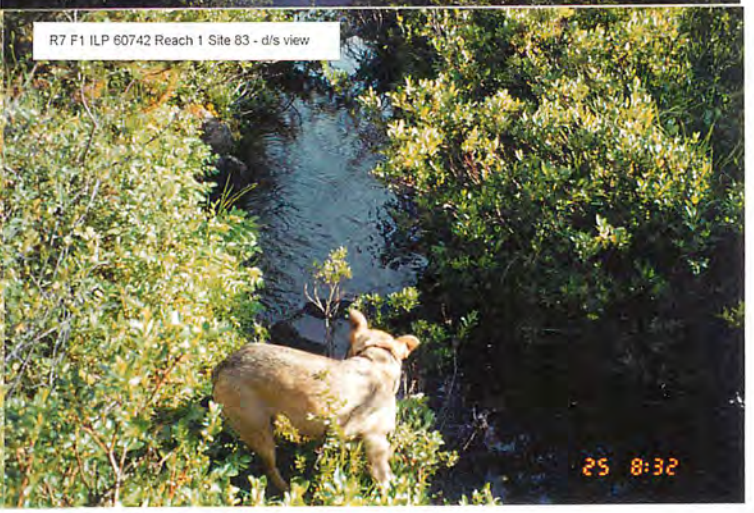

R6 F21 ILP 60736 Reach 2 Site 79 - d/s view


R6 F22 ILP 60741 Reach 1 Site 82 - u/s view


R6 F23 ILP 60741 Reach 1 Site 82 - u/s view


R6 F24 ILP 60743 Reach 1 Site 87 - u/s view


R6 F25 ILP 60742 Reach 1 Site 83 - u/s view


R7 F1 ILP 60742 Reach 1 Site 83 - d/s view


R7 F2 ILP 60744 Reach 0.1 Site 88 - d/s view


R7 F3 ILP 60744 Reach 0 1 Site 88 - u/s view


R7 F4 ILP 60744 Reach 1 Site 89 - d/s view


R7 F5 ILP 60744 Reach 1 Site 89 - u/s view


R7 F6 ILP 60745 Reach 1 Site 90 - u/s view


R7 F7 ILP 60742 Reach 2 Site 84 - u/s view


R7 F8 ILP 60742 Reach 2 Site 84 - d/s view


R7 F9 ILP 60746 Reach 2 Site 91 - u/s view


R7 F10 ILP 60746 Reach 2 Site 91 - u/s view


R7 F11 ILP 60742 Reach 5 Site 85 - u/s view


R7 F12 ILP 60742 Reach 5 Site 85 - d/s view


R7 F13 ILP 60742 Reach 6 Site 86 - d/s view


R7 F14 ILP 60742 Reach 6 Site 86 - u/s view


R7 F15 ILP 60754 Reach 1 Site 102 - u/s view

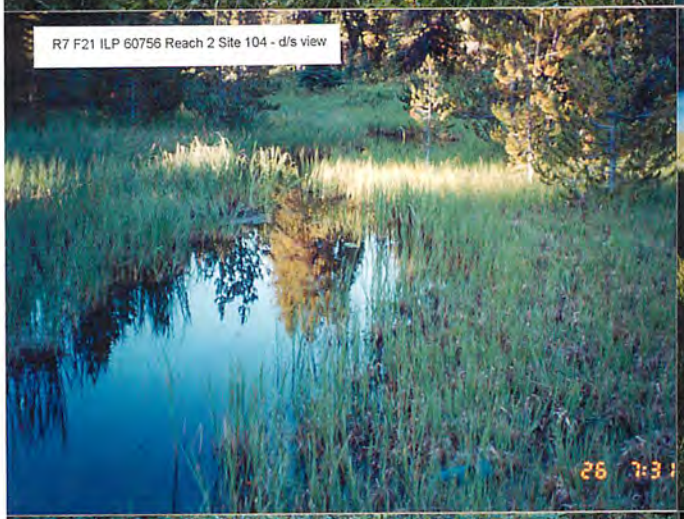

R7 F16 WSC 480-802100-66400 Reach 10 Site 53 - u/s view


R7 F17 WSC 480-802100-66400 Reach 10 Site 53 - d/s view
25 15:39


R7 F18 WSC 480-802100-66400 Reach 12 Site 54 - across view
25 16:28


R7 F19 ILP 60758 Reach 1 Site 106 - u/s view
25 16:35


R7 F20 ILP 60756 Reach 2 Site 104 - u/s view


R7 F21 ILP 60756 Reach 2 Site 104 - d/s view


R7 F22 ILP 60753 Reach 1 Site 101 - d/s view
26 8:04

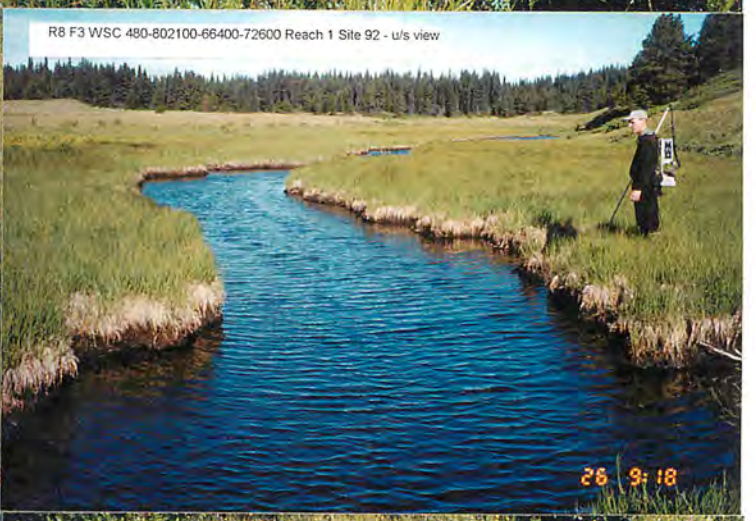

R7 F23 ILP 60752 Reach 1 Site 100 - u/s view


R7 F24 WSC 480-802100-66400 Reach 8 Site 52 - u/s view


R7 F25 WSC 480-802100-66400 Reach 8 Site 52 - d/s view


R8 F1 ILP 60751 Reach 1 Site 99 - u/s view

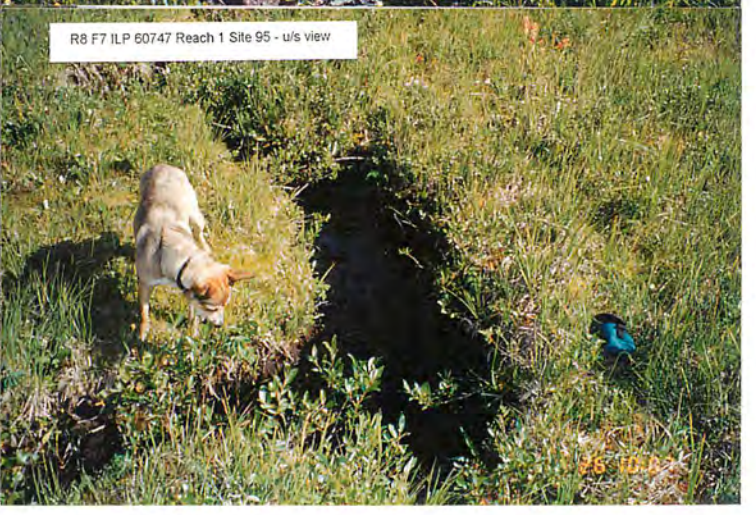

R8 F2 ILP 60751 Reach 1 Site 99 - d/s view


R8 F3 WSC 480-802100-66400-72600 Reach 1 Site 92 - u/s view


R8 F4 WSC 480-802100-66400-72600 Reach 1 Site 92 - d/s view


R8 F5 ILP 60747 Reach 2 Site 96 - u/s view


R8 F6 ILP 60747 Reach 2 Site 96 - d/s view


R8 F7 ILP 60747 Reach 1 Site 95 - u/s view


R8 F8 ILP 60747 Reach 1 Site 95 - d/s view


R8 F9 WSC 480-802100-66400-72600 Reach 2 Site 93 - u/s view


R8 F10 WSC 480-802100-66400-72600 Reach 2 Site 93 - d/s view


R8 F11 ILP 60748 Reach 1 Site 97 - u/s view


R8 F12 ILP 60748 Reach 1 Site 97 - d/s view


R8 F13 ILP 60749 Reach 1 Site 98 - across view


R8 F14 WSC 480-802100-66400-72600 Reach 4 Site 94 - u/s view

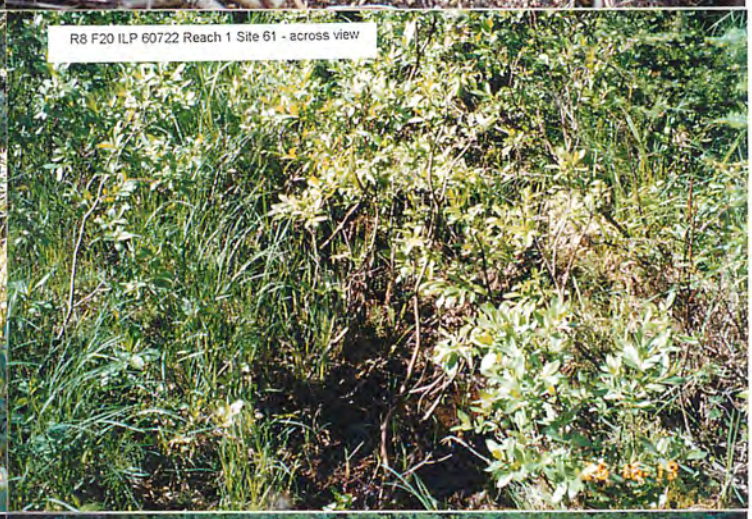

R8 F15 ILP 60724 Reach 1 Site 63 - u/s view


R8 F16 ILP 60715 Reach 7 Site 57 - u/s view


R8 F17 ILP 60727 Reach 1 Site 64 - u/s view


R8 F18 ILP 60727 Reach 1 Site 64 - d/s view

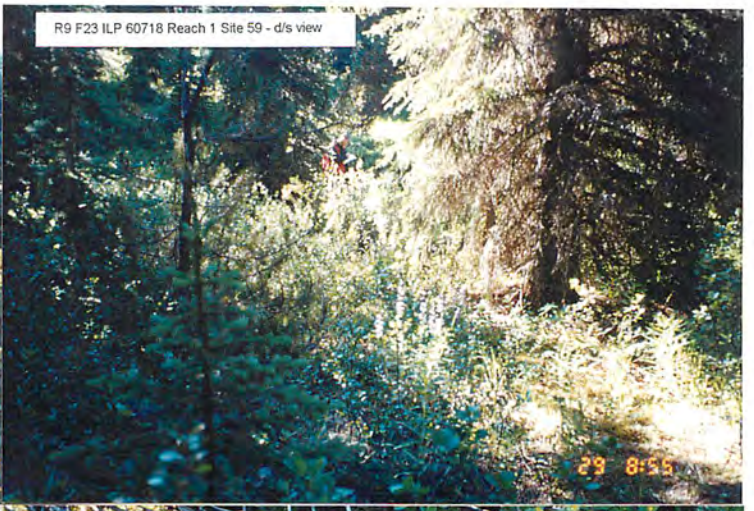

R8 F19 ILP 60723 Reach 1 Site 62 - u/s view


R8 F20 ILP 60722 Reach 1 Site 61 - across view


R9 F20 ILP 60716 Reach 1 Site 58 - d/s view

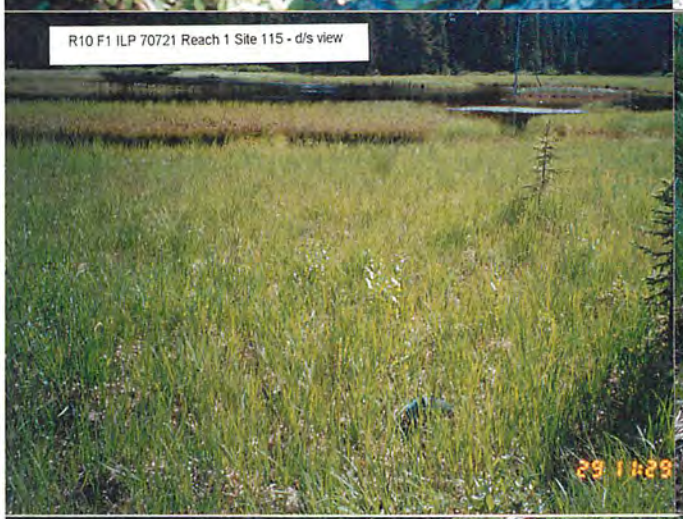

R9 F21 ILP 60716 Reach 1 Site 58 - u/s view

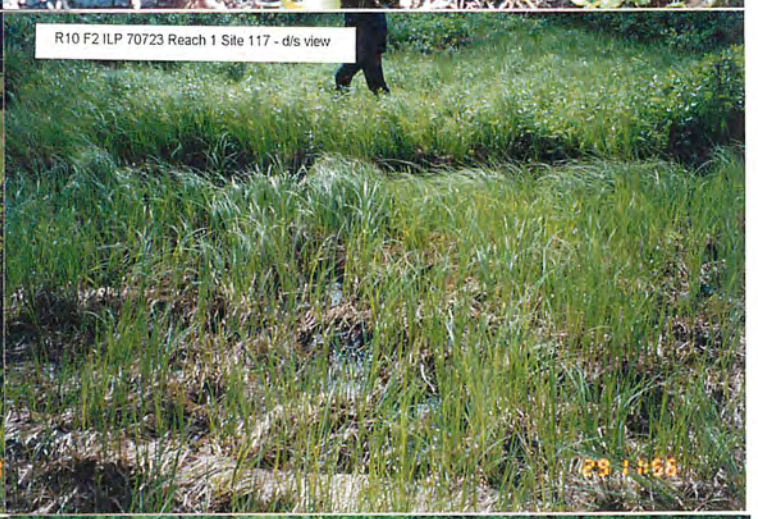

R9 F22 ILP 60721 Reach 1 Site 60 - u/s view


R9 F23 ILP 60718 Reach 1 Site 59 - d/s view


R9 F24 WSC 480-802100-79900 Reach 5 Site 111 - u/s view


R9 F25 WSC 480-802100-79900 Reach 5 Site 111 - d/s view


R10 F1 ILP 70721 Reach 1 Site 115 - d/s view


R10 F2 ILP 70723 Reach 1 Site 117 - d/s view


R10 F3 WSC 480-802100-79900 Reach 7 Site 112 - u/s view


R10 F4 WSC 480-802100-79900 Reach 7 Site 112 - d/s view

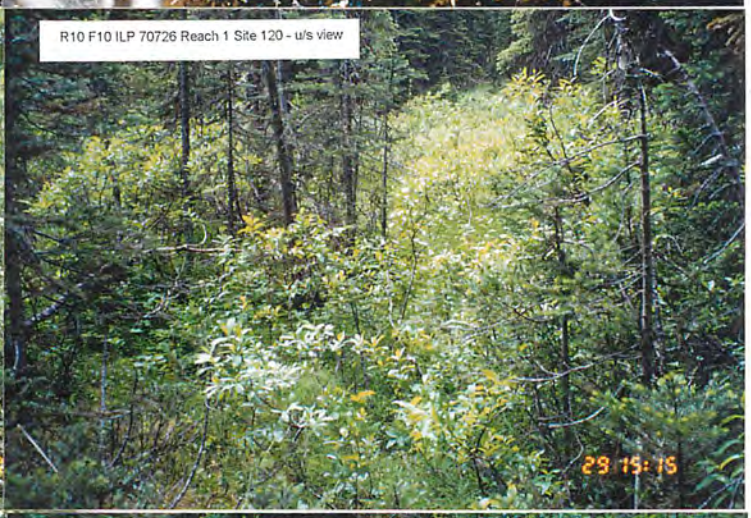

R10 F5 ILP 70722 Reach 2 Site 116 - u/s view


R10 F6 ILP 70725 Reach 1 Site 118 - u/s view
29 14:22


R10 F7 ILP 70725 Reach 1 Site 118 - d/s view


R10 F8 ILP 70725 Reach 2 Site 119 - u/s view
29 14:46

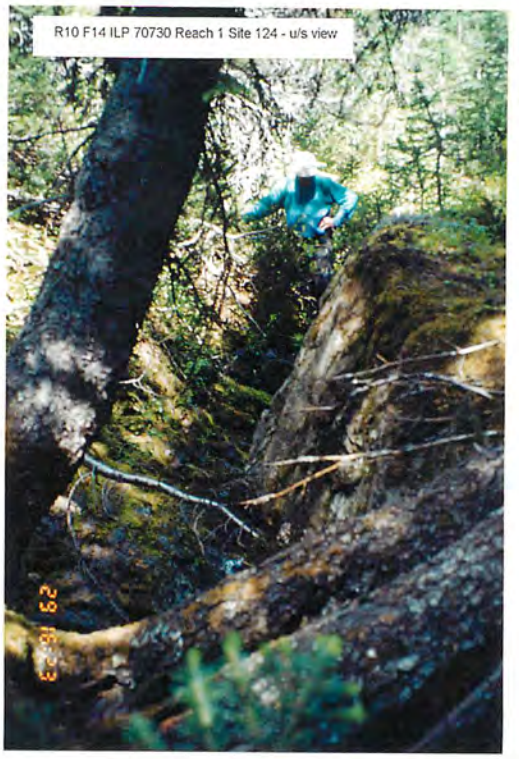

R10 F9 ILP 70725 Reach 2 Site 119 - d/s view

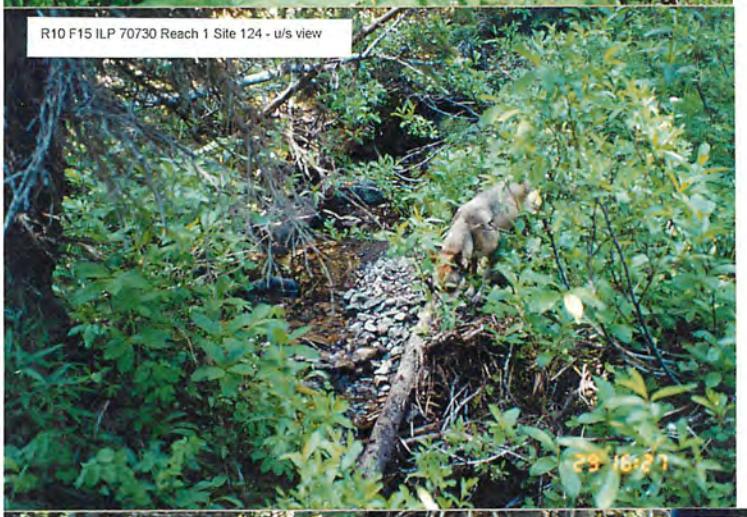

R10 F10 ILP 70726 Reach 1 Site 120 - u/s view
29 15:16


R10 F11 ILP 70727 Reach 1 Site 121 - d/s view


R10 F12 ILP 70727 Reach 1 Site 121 - u/s view
29 15:30


R10 F13 ILP 70728 Reach 1 Site 122 - u/s view


R10 F14 ILP 70730 Reach 1 Site 124 - u/s view


R10 F15 ILP 70730 Reach 1 Site 124 - u/s view


R10 F16 ILP 70730 Reach 1 Site 124 - d/s view


R10 F17 WSC 480-802100-79900 Reach 8 Site 113 - u/s view


R10 F18 WSC 480-802100-79900 Reach 8 Site 113 - d/s view


R10 F19 WSC 480-802100-79900 Reach 9 Site 114 - u/s view


R10 F20 ILP 70732 Reach 1 Site 126 - u/s view


R10 F21 ILP 70732 Reach 0.1 Site 125 - u/s view


R10 F22 ILP 70732 Reach 0.1 Site 125 - d/s view


R10 F23 ILP 70735 Reach 1 Site 127 - u/s view


R10 F24 ILP 70735 Reach 1 Site 127 - d/s view


R10 F25 ILP 70736 Reach 1 Site 128 - u/s view


R11 F1 ILP 70737 Reach 1 Site 129 - d/s view


R11 F2 ILP 70738 Reach 1 Site 130 - u/s view


R11 F3 ILP 70738 Reach 1 Site 130 - d/s view


R11 F4 ILP 70739 Reach 1 Site 131 - d/s view


R11 F5 ILP 70740 Reach 1 Site 132 - u/s view


R11 F6 ILP 70741 Reach 1 Site 133 - u/s view


R11 F7 ILP 70742 Reach 2 Site 134 - u/s view

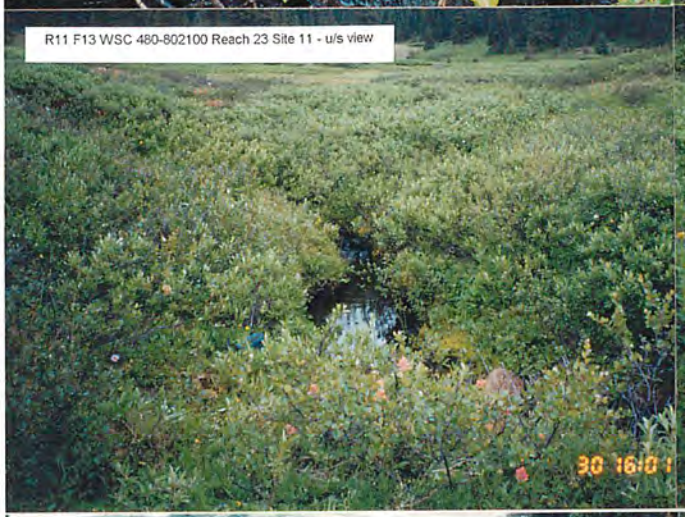

R11 F8 ILP 70742 Reach 2 Site 134 - d/s view


R11 F9 ILP 70751 Reach 2 Site 143 - u/s view


R11 F10 ILP 70751 Reach 2 Site 143 - d/s view


R11 F11 ILP 70750 Reach 3 Site 142 - u/s view


R11 F12 ILP 70757 Reach 1 Site 147 - u/s view
30 15:40


R11 F13 WSC 480-802100 Reach 23 Site 11 - u/s view
30 16:01


R11 F14 ILP 70760 Reach 0.1 Site 151 - u/s view
30 16:16


R11 F15 ILP 70760 Reach 0.1 Site 151 - d/s view
30 16:16


R11 F16 ILP 70746 Reach 1 Site 136 - u/s view


R11 F17 ILP 70746 Reach 1 Site 136 - d/s view


R11 F18 ILP 70747 Reach 1 Site 139 - u/s view


R11 F19 ILP 70747 Reach 1 Site 139 - d/s view


R11 F20 ILP 70747 Reach 2 Site 140 - u/s view


R11 F21 ILP 70746 Reach 2 Site 137 - u/s view


R11 F22 ILP 70746 Reach 2 Site 137 - d/s view

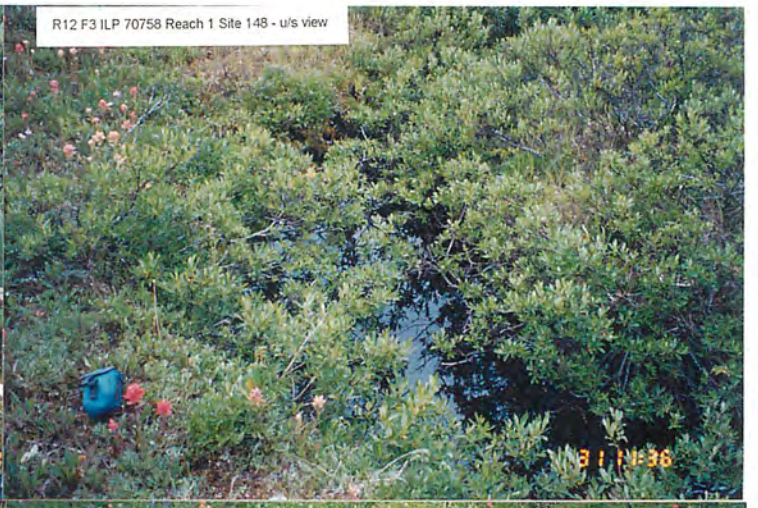

R11 F23 ILP 70748 Reach 1 Site 141 - u/s view


R11 F24 ILP 70746 Reach 3 Site 138 - u/s view


R11 F25 ILP 70754 Reach 1 Site 145 - u/s view


R12 F1 ILP 70753 Reach 1 Site 144 - u/s view


R12 F2 ILP 70756 Reach 1 Site 146 - u/s view


R12 F3 ILP 70758 Reach 1 Site 148 - u/s view


R12 F4 ILP 70758 Reach 1 Site 148 - d/s view


R12 F5 ILP 70759 Reach 1 Site 150 - u/s view


R12 F6 ILP 70758 Reach 2 Site 149 - u/s view


R12 F7 ILP 70760 Reach 1 Site 152 - d/s view


R12 F8 ILP 70760 Reach 1 Site 152 - u/s view


R15 F3 ILP 61702 Reach 1 Site 1 - u/s view


R15 F4 ILP 61702 Reach 1 Site 1 - d/s view


R15 F5 ILP 61705 Reach 2 Site 3 - u/s view


R15 F6 ILP 61705 Reach 2 Site 3 - d/s view


R15 F7 ILP 61705 Reach 1 Site 2 - u/s view


R15 F8 ILP 61705 Reach 1 Site 2 - d/s view


R15 F9 WSC 480-793000-13100-30021 Reach 1 Site 5 - u/s view


R15 F10 WSC 480-793000-13100-30021 Reach 1 Site 5 - d/s view


R15 F11 ILP 61713 Reach 1 Site 6 - u/s view


R15 F12 ILP 61713 Reach 1 Site 6 - d/s view


R15 F13 WSC 480-793000-13100 Reach 4 Site 4 - bed view


R15 F14 WSC 480-793000-13100 Reach 4 Site 4 - d/s view


R15 F15 WSC 480-802100-03500 Reach 2 Site 12 - u/s view


R15 F16 WSC 480-802100-03500 Reach 2 Site 12 - d/s view


R15 F17 WSC 480-802100-03500 Reach 2 Site 12 - d/s view

Reconnaissance (1:20,000) Fish and Fish Habitat Inventory

Resampling in the Pierre and Twain Sub-units 2002/03

Addendum to Pierre and Twain Sub-units Fish Inventory - 1999

• Appendix III: Hardcopy Maps