FCP: 610219H

2000 Operational Stream Inventory for FL A-16823

A Compilation of Data from Operational Fish Stream Identification and Follow-up Sampling for Various Streams in the Babine Lake (BABL), Bulkley River (BULK), Upper Trembleur Lake (UTRE) and Francois Lake (FRAN) High-Level Watershed Groups

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1. Introduction

1.1 Project Scope and Objectives

The purpose of this project was to compile and summarize all fisheries information collected in the Burns Lake area throughout the Babine Forest Products Company (BFP) operating area during operational fish inventories conducted during the 2000 field season. This information is supplemental to the information collected during Reconnaissance Inventories completed in this area and was generally gathered to provide BFP with site-specific fisheries information which was then 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 for watershed areas sampled during Reconnaissance Inventories, or to confirm Forest Practices Code (FPC) stream classifications proposed during these inventories. All results incorporate any previous field sampling that may have been conducted on the streams.

1.2 Location

All streams are located within the Lakes Forest District in the Babine Forest Products Company operating area. They are all within the Bulkley River (BULK), Francois Lake (FRAN), Babine Lake (BABL) and Upper Trembleur (UTRE) high level watershed groups. The location map (Figure 1) on the following page provides the general location of the study area.

1.2.1 Access

Access to all reaches sampled during these operational inventories was by vehicle from various logging roads and cutblock spur roads.

2. Historical Information

An abundance of fisheries information has been collected and presented under the scope of several reconnaissance and operational inventories completed over the past four years. Results from these inventories have not been summarized in the report. Rather, relevant information from these inventories has been applied in specific situations in this project to provide rationale for fish-bearing status and stream classification. Historical fish information is presented in this report within the stream summary table and hardcopy maps while sources for this information are listed in the bibliography.

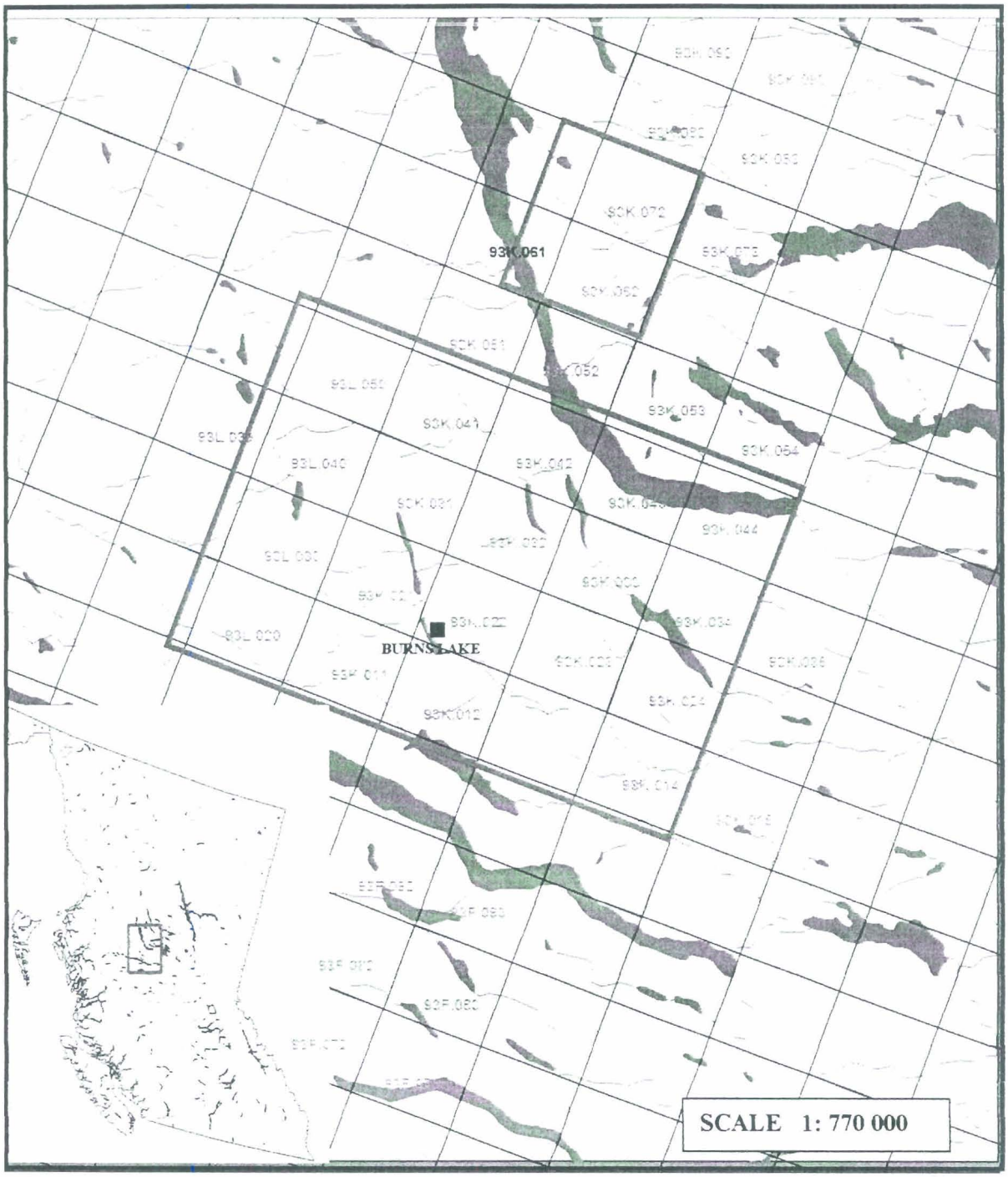

Figure 1: Location of Project Area. (Inset map shows the location within the province of British Columbia.)

3. Methods

Methodology used throughout this project was consistent with the standards and methods outlined in the following publications:

- Forest Practices Code (FPC) of British Columbia Act (1995)
- Fish-stream Identification Guidebook, Second Edition (FSID) (FPC, 1998)
- Riparian Management Area Guidebook (FPC, 1995)

3.1 Field Data Collection

Field data was collected on Site Cards, Fish Collection Forms and Individual Fish Data Cards. These field cards are the current accepted method of collecting data for fish sampling and stream classification. Supporting documentation regarding terminology and use of these field cards is available in "Reconnaissance (1:20,000) Fish and Fish Habitat Inventory: Standards and Procedures (MELP, 1998). Copies of all field cards, arranged by site number, are provided in Appendix I.

3.2 Fish Sampling

Electrofishing and visual observation were the primary methods used for fish sampling throughout the field portion of the project. These methods were 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).

3.3 Measurements

Stream channel and wetted widths were determined using a meter stick for smaller streams and a hip chain for streams with channel widths greater than 2.0m. 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 distance/gradient while 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 weekly using standardized solutions.

3.4 Mapping

Mapping convention for this project follows the standards as recommended in the FSID Guidebook, Second Edition (FPC, 1998). In all, 15 maps have been produced for this project.

All maps are adapted from 1:20 000 TRIM maps provided by BFP. All maps are on 8.5"x11" paper and range in scale from 1:24,631 to 1:45,900. Maps are arranged by map number (as identified in the key map) in Appendix III at the end of this report. A key map has also been included in this appendix, which depicts coverage of the individual maps in relation to the study area, as well as to individual TRIM mapsheet coverage. The maps depict the stream network, base coordinates from the UTM grid and mapping symbols, as recommended in the FSID Guidebook. It should be noted that the UTM grid on the L-series maps has been shifted by BFP so that the area is entirely within UTM zone 10, as opposed to zone 9. Field UTM coordinates collected on the data cards are based on zone 9 coverage. All new site data has been presented on the maps, in addition to any relevant historical data. The fish-bearing status of specific streams is represented on the maps using colour linework. Solid red lines indicate confirmed fish presence while dashed red lines indicate that fish presence has been inferred but is considered likely. Dashed blue lines indicate that fish presence has been inferred but that fish absence is suspected in that reach while solid blue lines indicate confirmed fish absence. Green lines indicate presence of non classified drainage reaches or lack of any kind of drainage at the surveyed site. These are discussed in further detail below in Section 3.7.

Maps have been generally numbered from north to south and from east to west moving south through the project area, as shown on the key map.

3.5 Site Numbering Convention

Site numbers for this project have been assigned in an upstream ascending order on each map for all sampled sites under the scope of this project. Historical sites have their relevant reach summary symbol on the map, but do not include any site numbering reference.

3.6 Stream Referencing

All sampled streams retained their original reference identifier as assigned during past inventories (i.e., gazetted name, watershed code, assigned name or interim locational point (ILP) number) for ease of referencing with prior projects. Streams without an historic reference were assigned a unique identifier.

3.7 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. The type of NVC reaches was noted in the comments on the site cards and in Table 1. NVC reaches received a "Non Classified Drainage" (NCD) FPC classification.

3.8 Photographs

Representative photographs and any significant features are presented in Appendix II, arranged by site number. They have been reduced in size so that multiple photos can be presented on one page. Each photo is labeled with site number, stream identifier and any relevant comments that aid in interpretation, so that each photo can be easily cross-referenced in the report.

3.9 Field Equipment

All sampling equipment specifications are listed below:

- 2 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)
- 2 Abney Levels, alcohol thermometers, Silva compasses
- 2 Pentax Zoom 90WR cameras
- 2 Garmin GPS 12
- assorted other equipment including tight chains, hip chains, dip nets, fishing rods, magnifying lenses, meter sticks
- 2 4X4 trucks equipped with Level 1 First Aid kits and 4 personal First Aid kits, as per WCB requirements
- Dissecting kit

4. Results and Discussion

4.1 Approach Used to Determine Fish-bearing Status

The following section summarizes the information collected and conclusions reached for each sample site within the project area. This has been based both on interpretations and conclusions from the synthesis of data collected during previous inventories and from new information collected as part of this project. Historical information was used only as further supporting evidence in determining fish-bearing status.

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, in applying a non fish-bearing status to a reach 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 historical sampling information, known fish distributions and behavior, barriers, gradients, invertebrate presence, habitat quality, and presence/absence of headwater lakes. An overview of the process used in determining fish-bearing status is presented in a flowchart in Figure 2 below.

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.

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. This is inherent in the process used to determine the non fish-bearing status.

4.2 Summary of Sampling Results

For the purposes of this report, all of the results for this project have been summarized into tabular format (Table 1). Each row summarizes the information collected at the sampling site and includes comments, which aid in the interpretation of the data. In the cases of resampling, reference to the results of the initial or original sampling is made in the comments to provide further rationale for the fish-bearing status of the stream in question. Detailed site-specific information is available in the field cards in Appendix I. The following defines the columns used in this table.

Sub-unit	Area as defined within BFP's operating area. Usually incorporates the name of a major watershed in the area.
Project Map #	The reference number for the maps included in Appendix III in this report
Site #	The reference number for the site assigned for this report.
Stream ID (Name, Alias, ILP, Assigned Name)	Stream identifier
Watershed Code	Hierarchal code to identify a stream, as defined in the Watershed Atlas.
Reach #	The reach in which the sample site is located.
Original Inventory	Auspices under which any original information was collected (1997 1:20k Reconnaissance, etc.)
Original Report	Report name from original inventory from which historical information was compiled.
Previously Sampled (Y/N)	Whether or not the specific stream reach was previously sampled. Prior sampling conducted in proximal reaches is mentioned in the comments, when applicable.
Survey Date	Date of sampling.
RMA Class (S1-S6, (S1)-(S6), NCD)	Assigned FPC classification, based on interpretation of all information. Parentheses indicate inferred and not confirmed classifications.
Average Gradient (%)	Average stream gradient over site length.
Average Channel Width (m)	Average channel width over site length
Fish presence (Y/N/Suspected Presence/Suspected Absence)	Conclusion of fish presence – Y = confirmed fish presence, N = confirmed fish absence, Suspected Presence = habitat present and accessible but fish use not confirmed, [illegible] = marginal habitat but fish use not impossible.
Fish Species Codes (inferred)	Fish species captured or inferred (expected) in reach
Fish Barrier Type	Description of barrier to fish (if present)
Fish Barrier Location	Location of barrier

Fish Habitat Value (H, M, L, N)	Subjective rating of habitat value, based on biological judgment. High, Moderate, Low or None.
Capture Method	Description of fish sampling methods. EF = electrofishing, MT = minnow traps
Minnow Traps	Sampling method
#MT/# of hours	Number of minnow traps set and time set (in hours)
EF Length (m)	Distance of stream electrofished in meters.
EF Time (s)	Time electrofished in seconds
EF Settings (V/Hz/μs)	Settings used for the electrofisher (Voltage (V), frequency (Hz), pulse width (microseconds)
Comments	Any further comments as they relate to the site. Usually provides rationale for fish-bearing status conclusions, a brief description of habitat and any other pertinent historical sampling information which supports conclusions.

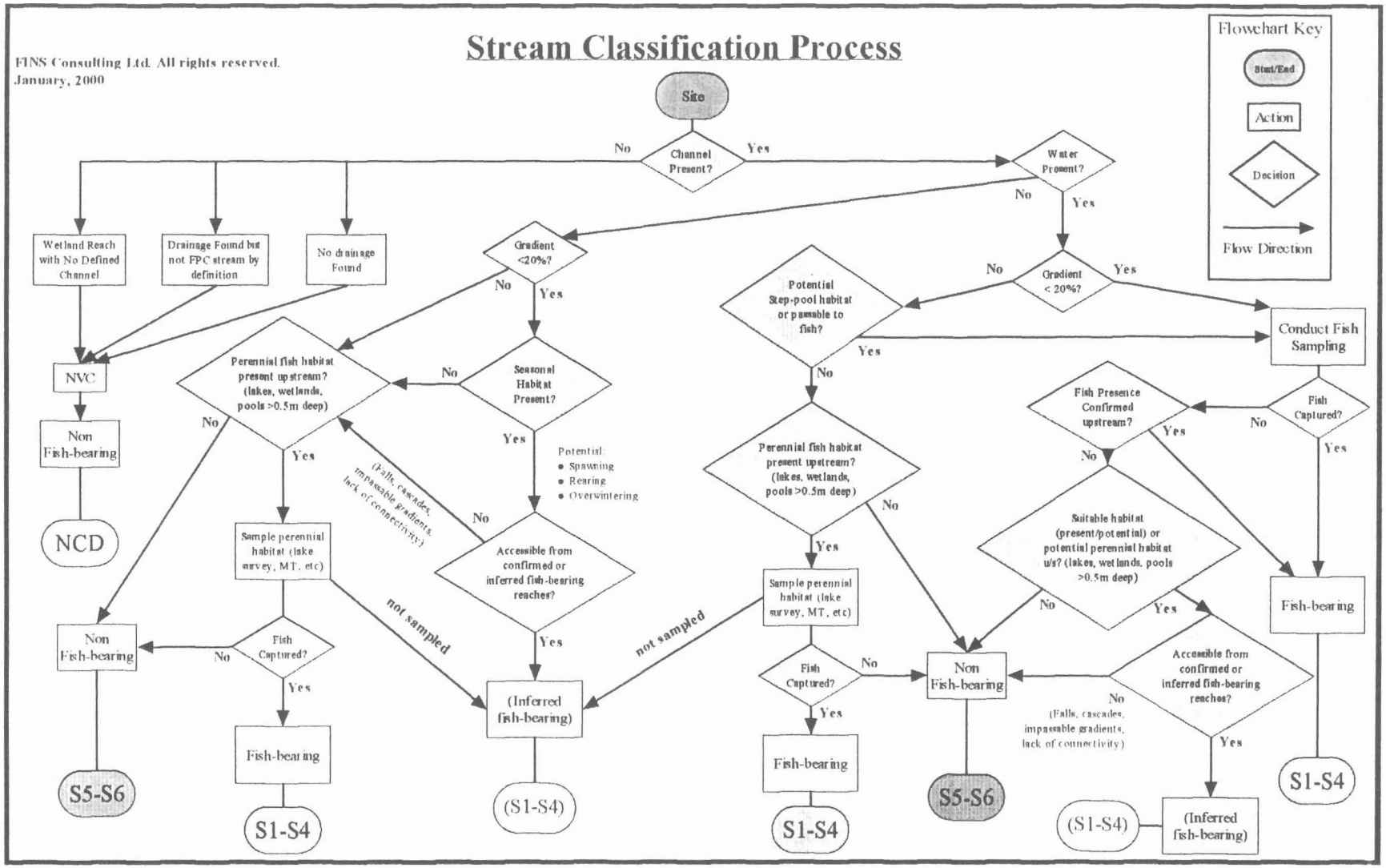

Figure 2: Flowchart of the stream classification process used in determining fish-bearing status of surveyed reaches

Table 1: Operational Stream Inventory Data, 2000.

Sub-unit	Project Map #	Site #	Stream ID (Name, Alias, ILP, Assigned Name)	Watershed Code	Reach #	Original Inventory	Original Report	Previously sampled? (Y/N)	Survey Date	RMA Class (S1-S6, (S1)-(S6), NCD)	Average Gradient (%)	Average Channel Width (m)	FPC Fish presence (Y/N/ [illegible])	Fish Species Codes (I=inferred	Fish Barrier Type	Fish Barrier Location	Fish Habitat Value (H, M, L, N)	Capture Method	MT/# of hours	EF length (m)	EF time (s)	EF settings (V/Hz/us)	Comments
Fleming	1	1	Fleming C	182-819600-95800	4	1996 1:20K Reconnaissance Inventory	"Fleming Area"	Y	10/17/00	S5	0.0	10.5	N	NFC (LKC LSU)	Extensive beaver dams and wetlands, not salmonid habitat	Throughout drainage	L	MT	MT1/19 MT2/19 MT3/19 MT4/19				Reach was previously sampled in 1996 with NFC - inferred fish bearing at that time but with further sampling recommended to confirm. Marshy reach with almost stagnant and smelly water; not suitable habitat for salmonids.
Fleming	1	2	Fleming C	182-819600-95800	5	1996 1:20K Reconnaissance Inventory	"Fleming Area"	Y	10/17/00	S5	0.0	7.7	N	LSU	Extensive beaver dams and wetlands, not salmonid habitat.	Throughout drainage.	L	MT	MT1/23 MT2/23 MT3/23 MT4/23				Reach was previously sampled in 1996 with NFC - inferred fish bearing at that time but with further sampling recommended to confirm. Marshy reach with almost stagnant and smelly water, not suitable habitat for salmonids.
Fleming	1	3	Fleming C	182-819600-95800	5	1996 1:20K Reconnaissance Inventory	"Fleming Area"	Y	10/17/00	S5	0.0	7.3	N	LSU	Extensive beaver dams and wetlands; not salmonid habitat	Throughout drainage.	L	MT	MT1/23 MT2/23 MT3/23 MT4/23				Reach was previously sampled in 1996 with NFC - inferred fish bearing at that time but with further sampling recommended to confirm. Marshy reach with almost stagnant and smelly water; not suitable habitat for salmonids
Fleming	2	4	FUHi	182-819600-95800-48400-1060	2	1996 1:20K Reconnaissance Inventory	"Fleming Area"	Y	10/17/00	(S3)	3.0	2.1	[illegible]	NFC (RB)	None	N/A	M	EF		250	496	500/80/6	Reach was previously sampled in 1996 with NFC and was inferred non fish-bearing. However, resampling confirmed presence of accessible habitat although no fish captured. Overall good RB habitat present, but access to fish from creek FUH likely impeded by the presence of numerous BD's and wetland d/s in reach 1.
Fleming	2	5	FUHi	182-819600-95800-48400-1060	3	1996 1:20K Reconnaissance Inventory	"Fleming Area"	Y	10/17/00	NCD			N	None	Lack of channel	Start of reach	N	NS					Not a stream by FPC definition. Some channelized sections but mainly a gully draw through devil's club. FUHi2 is real mainstem. No fish habitat or potential use.
Fleming	2	6	FUHiA	Not Coded	1	1996 1:20K Reconnaissance Inventory	"Fleming Area"	N	10/17/00	S6	6.8	1.3	N	NFC	Lack of habitat	From mouth	N	EF		100	69	600/80/6	Seasonal trickle over cobbles and fines. Lack of fish in parent stream (NFC in 1996 and 2000) and overall lack of perennial and seasonal habitat here indicates non-fish bearing status.
Fleming	2	7	FUHiB	182-819600-95800-48400-1060-2640	1	1996 1:20K Reconnaissance Inventory	"Fleming Area"	N	10/18/00	NCD	0.6		N	None	Lack of channel	At mouth	N	NS					Many discontinuous, mucky and shallow channels in brushy wetland with no suitable perennial or seasonal fish habitat
Fleming	2	8	FUHiC	Not Coded	1	1996 1:20K Reconnaissance Inventory	"Fleming Area"	N	10/18/00	NCD			N	None	Lack of channel	At mouth	N	NS					Seepage within a gully with no fish habitat available at any time of year
Fleming	2	9	FUHii (Fleming958)	182-819600-95800-48400-2030	2	1996 1:20K Reconnaissance Inventory	"Fleming Area"	Y	07/11/00	S3	2.8	2.4	Y	RB	None	N/A	M	EF		3	8	600/80/6	Permanent stream with some rearing habitat available. RB present up to the culvert
Fleming	2	10	FUHii (Fleming958)	182-819600-95800-48400-2030	2	1996 1:20K Reconnaissance Inventory	"Fleming Area"	Y	07/11/00	(S3)	3.5	2.2	[illegible]	NFC (RB)	2m high culvert drop	Fleming Rd crossing at 95.8km	M	EF		180	313	700/80/6	Permanent stream with some rearing and spawning habitat available. Abundant Gammaridae indicates fish absence, possibly d/t culvert obstruction at Fleming Rd. crossing. Ls.

Table 1: Operational Stream Inventory Data, 2000.

Sub-unit	Project Map #	Site #	Stream ID (Name, Alias, IL.P, Assigned Name)	Watershed Code	Reach #	Original Inventory	Original Report	Previously sampled? (Y/N)	Survey Date	RMA Class (S1-S6, (S1)-(S6), NCD)	Average Gradient (%)	Average Channel Width (m)	FPC Fish presence (Y/N/)	Fish Species Codes (I=inferred	Fish Barrier Type	Fish Barrier Location	Fish Habitat Value (H, M, L, N)	Capture Method	MT#/ # of hours	EF length (m)	EF time (s)	EF settings (V/Hz/us)	Comments
Fleming	2	11	FUHtiB	182-819600-95800-48400-2030-1300	1	1996 1:20K Reconnaissance Inventory	"Fleming Area"	N	10/17/00	S6	6.3	0.5	N	NFC	Lack of habitat	From site	N	EF		5	15	700/80/6	Tiny shallow trickle with only marginal channel present. No spawning or overwintering potential. Accessible based on gradient, but no habitat present to support fish. Also low RB use in parent stream.
Fleming	2	12	FUHtiA (Fleming96)	182-819600-95800-48400-2030-2100	2	1996 1:20K Reconnaissance Inventory	"Fleming Area"	Y	07/11/00	S3	2.6	2.3	Y	RB	None	N/A	M	EF		10	38	700/60/8	Reach was previously sampled in 1996 with NFC and was inferred non fish-bearing. However, resampling confirmed presence of RB above and below Fleming Rd. crossing. Moderate RB habitat with some spawning and rearing available with potential overwintering. (3 adult RB captured).
Fleming	2	13	FUHtiA1	Not Coded	1	1996 1:20K Reconnaissance Inventory	"Fleming Area"	N	10/17/00	S6	10.0	0.5	N	NFC	Lack of habitat	From mouth	N	EF		1	10	700/80/6	Moderately steep, tiny trickle with no instream cover at present or at high flow. No fish habitat.
Fleming	2	14	FUHtiC	Not Coded	1	1996 1:20K Reconnaissance Inventory	"Fleming Area"	N	10/17/00	NC D			N	None	Lack of channel	At mouth	N	NS					Drainage without fluvium, continuous banks and channel. No fish habitat.
Fleming	3	15	FUH3	182-819600-95800-48400-3520	1	1996 1:20K Reconnaissance Inventory	"Fleming Area"	N	10/17/00	NC D			N	None	Lack of channel	At mouth	N	NS					No stream or any kind of drainage present at mapped location or in the vicinity.
Fleming	3	16	FUH4	182-819600-95800-48400-4190	1	1996 1:20K Reconnaissance Inventory	"Fleming Area"	N	10/17/00	NC D			N	None	Lack of channel	At mouth	N	NS					Drainage without fluvium, continuous banks and channel. No fish habitat.
Fleming	3	17	FUH1	182-819600-95800-48400-4490	2	1996 1:20K Reconnaissance Inventory	"Fleming Area"	N	10/17/00	S6	4.8	1.0	N	NFC	Lack of channel	At mouth	L	EF		100	213	700/80/6	Small, shallow and marginal FPC stream. Inaccessible to fish from stream FUH d/t lack of channel in reach 1. Lacks suitable perennial habitat to support fish.
Fleming	3	18	FUH5	Not Coded	1	1996 1:20K Reconnaissance Inventory	"Fleming Area"	N	10/17/00	S6	22.0	0.9	N	NFC	80m long X 16m high cascade	At mouth	N	EF		80	170	700/80/6	Small stream and too steep for fish use.
Fleming	3	19	FUH5	Not Coded	2	1996 1:20K Reconnaissance Inventory	"Fleming Area"	N	10/17/00	S6	2.8	1.2	N	NFC	80m long X 16m high cascade	At mouth	L	EF		100	211	700/80/6	Small and shallow stream, inaccessible to fish from stream FUH d/t steep gradient in reach 1. Lacks suitable perennial habitat to support fish.
Fleming	3	20	FUHv	Not Coded	1	1996 1:20K Reconnaissance Inventory	"Fleming Area"	Y	10/17/00	S6	11.8	0.5	N	NFC	Lack of habitat	From mouth	N	EF		100	137	700/80/6	Stream previously sampled in 1996 with NFC but inferred fish presence. Tiny trickle over organic fines with 18% gradient at mouth and overall moderate gradient with no instream cover. Lacks perennial habitat.
Fleming	4	21	FUL1	182-819600-95800-64500	8	1996 1:20K Reconnaissance Inventory	"Fleming Area"	Y	10/17/00	S6	2.6	1.8	N	LSU	Lack of habitat	From lake d/s	L	EF		500	514	500/80/4	Reach was previously sampled in 1996 with NFC - inferred fish bearing at that time but with further sampling recommended to confirm. Shallow channel with no instream cover and no spawning habitat for RB. Stream lacks local RB population and is inaccessible to RB from stream FUL d/t 6km length of extensive wetlands d/s. No RB captured in 1996 or 2000. Only LSU and CSU documented in 1977 survey of Sargent Lake u/s.
Gullwing	5	22	BAB5	Not Coded	1	1996 1:20K Reconnaissance Inventory	"Gullwing Area"	Y	10/18/00	S6	2.8	1.4	N	None	Lack of habitat	From mouth	N	NS					Reach was previously sampled in 1996 with NFC. Ephemeral stream with lack of suitable seasonal habitat.

Table 1: Operational Stream Inventory Data, 2000.

Sub-unit	Project Map #	Site #	Stream ID (Name, Atlas, ILP, Assigned Name)	Watershed Code	Reach #	Original Inventory	Original Report	Previously sampled? (Y/N)	Survey Date	RMA Class (S1-S6, (S1)-(S6), NCD)	Average Gradient (%)	Average Channel Width (m)	FPC Fish presence (Y/N/	Fish Species Codes (I=Inferred	Fish Barrier Type	Fish Barrier Location	Fish Habitat Value (H, M, L, N)	Capture Method	MT#/ # of hours	EF length (m)	EF time (s)	EF settings (V/Hz/us)	Comments
Taltapin	6	23	ILP 43508	Not Coded	2	1998 1:20K Reconnaissance Inventory	"Subdrainages in the Babine Lake Watershed"	N	10/16/00	S6	5.3	0.6	N	NFC	Lack of habitat, discontinuous channel	1.45km from mouth	N	EF		500	149	300/80/4	Tiny stream with frequent subflow sections, shallow with lack of spawning or overwintering habitat, no fish in parent stream
Taltapin	6	24	ILP 43508	Not Coded	4	1998 1:20K Reconnaissance Inventory	"Subdrainages in the Babine Lake Watershed"	N	10/16/00	S6	2.5	1.1	N	None	See above	See above	N	NS					Seasonal trickle over fines with marginal stream characteristics. No fish habitat and isolated above obstruction in reach 2
Taltapin	6	25	ILP 43510	Not Coded	1	1998 1:20K Reconnaissance Inventory	"Subdrainages in the Babine Lake Watershed"	N	10/16/00	NCD			N	None	Lack of channel	At mouth	N	NS					No stream or any kind of drainage present at mapped location or in the vicinity - forested depression
Taltapin	7	26	Taltapin L Tributary/ ILP 34554	Not Coded	1	1998 1:20K Reconnaissance Inventory	"Subdrainages in the Babine Lake Watershed"	N	10/16/00	NCD	17.0		N	None	Lack of channel	At mouth	N	NS					No stream or any kind of drainage present at mapped location or in the vicinity - forested gully
Helene	8	27	Marlin C. trib	480-927700-23300-36300	1	1999 1:20K Reconnaissance Inventory	"Helene/Augier-Pinkut Sub-units Fish Inventory"	N	7/14/00	(S3)	8.3	1.7	[illegible]	NFC (RB)	None	N/A	L	EF		115	231	500/80/6	Surveyed reach 2 of this stream in 1999 with NFC. Moderately steep and fast flowing stream with moderate rearing habitat available to the falls obstruction.
Helene	8	28	Marlin C trib	480-927700-23300-36300	1.1	1999 1:20K Reconnaissance Inventory	"Helene/Augier-Pinkut Sub-units Fish Inventory"	N	7/14/00	S6	10.3	1.8	N	NFC	7m high falls	Start of reach, 0.73km from mouth	L	EF		110	304	500/80/6	Second sampling event above falls. Habitat isolated and no local RB population present in the system above falls obstruction d/s.
Augier-Pinkut	9	29	LMPIN4B	Not Coded	1	1996 1:20K Reconnaissance Inventory	"Pinkut Area"	N	07/31/00	S6	3.5	1.3	N	NFC	Lack of habitat	From mouth	N	EF		205	149	500/70/4	Unsuitable RB habitat d/t lack of instream cover, overwintering or spawning habitat. Channel filled with organics, deteriorates further 30m u/s from mouth
Augier-Pinkut	10	30	LORDS1	Not Coded	1	1996 1:20K Reconnaissance Inventory	"Pinkut Area"	N	07/12/00	S6	0.8	1.4	N	NFC	Lack of habitat	From site	N	EF		100	149	500/80/6	Unsuitable RB habitat - channel filled with instream veg tation over organic substrate, shallow, water slightly acidic, swampy stream.
Augier-Pinkut	10	31	LMPIN3C	Not Coded	1	1996 1:20K Reconnaissance Inventory	"Pinkut Area"	Y	7/14/00	S6	2.3	0.7	N	NFC	Lack of habitat	From mouth	L	EF		200	239	500/80/6	Sampled this stream in 1996 with NFC. Unsuitable RB habitat, tiny, multichannel trickle over organic substrate, shallow, swampy stream.
Upper Pinkut	11	32	PT1	Not Coded	1	None	None	N	10/18/00	(S6)	3.3	1.3	[illegible]	NFC	Marginal habitat	From site	L	EF		470	462	500/80/4	Small and shallow creek with some rearing habitat available. Access to fish from Pinkut C. impeded by numerous BD's 460m d/s from North Rd. crossing. However, habitable to unmapped tributary, which joins this stream 170m d/s from North Rd. Habitat deteriorates from this point u/s.
Upper Pinkut	11	33	PT1	Not Coded	2	None	None	N	10/18/00	S6	8.0	0.4	N	NFC	Lack of habitat	From site	N	EF		250	107	500/80/4	Tiny and moderately steep seasonal trickle with frequent subflow and unsuitable habitat for RB.
Upper Pinkut	11	34	PT	480-927700-69200	1	None	None	N	08/25/00	S3	1.5	1.5	Y	RB	None	N/A	M	EF		220	184	100/60/1	Stream with good rearing habitat among abundant deep pools/cutbank type cover. Many RB fry indicates possible spawning use.
Upper Pinkut	11	35	PT2	Not Coded	1	None	None	N	10/18/00	S6	9.8	0.7	N	NFC	Lack of habitat	From mouth	N	EF		160	198	700/80/6	Tiny and moderately steep stream with fast flow and no instream cover. Lacks any usable RB habitat at any flow.
Upper Pinkut	11	36	PT3	Not Coded	1	None	None	N	10/18/00	NCD	1.5		N	None	Lack of channel	From site	N	NS					Drainage without fluvium, continuous banks or channel bed. No fish habitat.

Table 1: Operational Stream Inventory Data, 2000.

Sub-unit	Project Map #	Site #	Stream ID (Name, Atlas, ILP, Assigned Name)	Watershed Code	Reach #	Original Inventory	Original Report	Previously sampled? (Y/N)	Survey Date	RMA Class (S1-S6, (S1)-(S6), NCD)	Average Gradient (%)	Average Channel Width (m)	FPC Fish presence (Y/N/[illegible])	Fish Species Codes (I=Inferred	Fish Barrier Type	Fish Barrier Location	Fish Habitat Value (H, M, L, N)	Capture Method	MT/# of boats	EF length (m)	EF time (s)	EF settings (V/Hz/ms)	Comments
Upper Pinkut	12	37	PT4	Not Coded	1	None	None	N	10/18/00	NCD			N	None	Lack of channel	At mouth	N	NS					Drainage without fluvium, continuous banks or channel bed. No fish habitat.
Upper Pinkut	12	38	PT4	Not Coded	2	None	None	N	10/18/00	S6	7.0	0.9	N	None	Lack of connectivity	From mouth	L	NS					Ephemeral, moderately steep and small stream with no connectivity to Pinkut C. (NVC in reach 1)
Upper Pinkut	12	39	PT4	Not Coded	3	None	None	N	08/25/00	NCD			N	None	Lack of channel	At mouth, site.	N						Not a stream by FPC definition. No fish habitat potential and also inaccessible to fish from Pinkut C. due to lack of channel in reach 1.
Upper Pinkut	12	40	PT5	480-927700-72600	1	None	None	N	10/18/00	(S4)	4.5	1.4	[illegible]	NFC (RB)	None	N/A	M	EF		150	204	700/80/6	Good RB rearing in cascade pool habitat. Fair to moderate spawning in occasional gravel pockets. Fair overwintering - good flow but lacks significant deep pools. Habitat present and easily accessible from Pinkut C.
Upper Pinkut	12	41	PT5	480-927700-72600	2	None	None	N	08/25/00	S6	1.0	0.7	N	NFC	Lack of habitat	From site	N	EF		130	48	400/60/1	Small, shallow and marginal FPC stream, frequently vegetated channel. Poor water quality. No usable fish habitat present.
Upper Pinkut	12	42	PT6	480-927700-76100	1	None	None	N	10/19/00	(S4)	7.0	1.0	[illegible]	NFC (RB)	None	N/A	M	EF		380	418	500/80/1	Small and moderately steep stream with good rearing and potential spawning habitat available, easily accessible from Pinkut C.
Upper Pinkut	12	43	PT6	480-927700-76100	2	None	None	N	10/19/00	S6	0.5	2.5	N	None	Lack of habitat	From site	N	NS					No suitable RB habitat - shallow, multichannels within wetland, lacks instream cover and likely dries out in summer.
Upper Pinkut	12	44	PT6	480-927700-76100	3	None	None	N	08/25/00	NCD			N	None	Lack of channel	From site	N	NS					Drainage without fluvium, continuous banks or channel bed. Wet depression in the forest. No fish habitat.
Upper Pinkut	12	45	PT7	Not Coded	1	None	None	N	08/25/00	(S4)	2.5	0.5	[illegible]	NS (RB)	Lack of habitat	47m u/s from road	L	NS					Small stream with some habitat, easily accessible from Pinkut C. up to 47m u/s from Lower Pinkut Rd. At this point, stream flows mostly underground and has no usable/accessible habitat.
Upper Pinkut	12	46	PT8	Not Coded	1	None	None	N	08/25/00	NCD			N	None	Lack of channel	From site	N	NS					23m long channel connecting 2 wetlands with no access from Pinkut C.
Palling	13	47	Forgie C.	180-374000-95200-01900-9100	7	1997 1:20K Reconnaissance Inventory	"Forgie Creek"	Y	8/24/00	S3	2.5	2.6	Y	RB	None	N/A	M	EF		745	187	500/60/1	Sampled this reach in 1997 with RB capture but recommended resampling to determine distribution limit for RB. Overall shallow stream with moderate to good rearing habitat present. Stream affected by dewatering in places. RB scarce.
Palling	13	48	Forgie C.	180-374000-95200-01900-9100	8	1997 1:20K Reconnaissance Inventory	"Forgie Creek"	N	8/24/00	S3	5.5	1.2	Y	RB	None	N/A	M	EF		3485	374	400/60/1	Stream affected by dewatering but deep pools more abundant, which provide better survival chance, good rearing habitat and also some spawning and overwintering habitat available. RB common.
Palling	13	49	Forgie C.	180-374000-95200-01900-9100	9	1997 1:20K Reconnaissance Inventory	"Forgie Creek"	N	8/24/00	(S3)	3.8	2.1	[illegible]	NFC (RB)	5m high X 15m long cascade	From upper end of site, 8.7km from mouth	L	EF		120	152	500/60/1	Poor habitat, lacks instream cover but accessible to cascade at higher flow.
Palling	13	50	Forgie C.	180-374000-95200-01900-9100	11	1997 1:20K Reconnaissance Inventory	"Forgie Creek"	Y	8/24/00	S6	1.8	0.9	N	NFC	See above	See above	L	EF		200	175	500/60/5	Sampled this reach in 1997 with NFC. Usable RB habitat but isolated above cascade d/s in reach 9.
Palling	13	51	ILP 31014	Not Coded	1	1997 1:20K Reconnaissance Inventory	"Forgie Creek"	Y	8/25/00	NCD	1.0	1.5	N	None	Lack of channel	At mouth	N	NS					Sampled upper section of this reach in 1997 with NFC. No channel present within first 500m - just brushy wetland. No fluvium, no banks, no fish habitat and no connection from Forgie C. to upper reaches.

Table 1: Operational Stream Inventory Data, 2000.

Sub-unit	Project Map #	Site #	Stream ID (Name, Atlas, ILP, Assigned Name)	Watershed Code	Reach #	Original Inventory	Original Report	Previously sampled? (Y/N)	Survey Date	RMA Class (S1-S6, (S1)-(S6), NCD)	Average Gradient (%)	Average Channel Width (m)	FPC Fish presence (Y/N/Potential)	Fish Species Codes (I=inferred	Fish Barrier Type	Fish Barrier Location	Fish Habitat Value (H, M, L, N)	Capture Method	MT#/ # of hours	EF length (m)	EF time (s)	EF settings (V/Hz/us)	Comments
Palling	13	52	ILP 31014	Not Coded	2	1997 1:20K Reconnaissance Inventory	"Forgie Creek"	N	8/25/00	S6	2.3	1.5	N	None	Lack of connectivity	From mouth	N	NS					Seasonal stream above wetland with no connection to Forgie C
Palling	13	53	ILP 31015	Not Coded	1	1997 1:20K Reconnaissance Inventory	"Forgie Creek"	Y	8/25/00	NCD			N	None	Lack of channel	From site	N	NS					Sampled this stream in 1997. Drainage without fluvium, continuous banks and channel. Wet depression in the forest. No fish habitat
Palling	13	54	ILP31016	Not Coded	2	1997 1:20K Reconnaissance Inventory	"Forgie Creek"	N	8/25/00	S6	3.9	0.9	N	None	Lack of connectivity	From mouth of ILP 31014	N	NS					Small stream with very little of seasonal habitat, but isolated from Forgie C d/t lack of channel in reach 1 of ILP 31014
Palling	13	55	ILP 31019	Not Coded	1	1997 1:20K Reconnaissance Inventory	"Forgie Creek"	Y	8/24/00	(S4)	2.3	0.8	[illegible]	NFC (RB)	Lack of channel/habitat in wetland	At end of site, 2.1km u/s from mouth	L	EF		180	172	600/60/4	Sampled reach 3 in 1997 with NFC. Small and seasonal stream with good rearing habitat at higher flow; easily accessible to fish from Forgie C. up to the wetland in reach 4
Palling	13	56	ILP 31021	Not Coded	1	1997 1:20K Reconnaissance Inventory	"Forgie Creek"	N	8/24/00	S6	2.5	0.3	N	None	Lack of habitat, isolated above barrier in Forgie C	See site 49	N	NS					Seasonal and tiny trickle, with no fish habitat, isolated above cascade barrier in Forgie C
Broman	14	57	TAM2	460-951600-53800	3	1996 1:20K Reconnaissance Inventory	"Endako Area"	N	07/11/00	S3	5.0	2.0	Y	RB	None	N/A	M	EF		60	74	700/80/6	Good RB rearing in cascade pool habitat. No significant spawning, but some gravel pockets present. Unlikely overwintering habitat.
Broman	14	58	TAM2	460-951600-53800	4	1996 1:20K Reconnaissance Inventory	"Endako Area"	N	07/11/00	S4	3.5	1.2	Y	RB	None	N/A	M	EF		80	104	800/80/6	Fair RB rearing but generally quite shallow. Good spawning substrate, likely used by RB. No overwintering habitat. RB not abundant.
Broman	14	59	TAM2 (Stream2)	460-951600-53800	5	1996 1:20K Reconnaissance Inventory	"Endako Area"	N	07/11/00	S6	6.3	0.5	N	NFC	Lack of habitat	From site	N	EF		80	196	700/80/6	Tiny, shallow incised trickle at moderate gradient, much of channel exposed in cutblock. No suitable RB habitat present
Broman	14	60	TAM2A	Not Coded	2	1996 1:20K Reconnaissance Inventory	"Endako Area"	Y	07/11/00	S6	3.5	0.6	N	NFC	Lack of habitat	From site	L	EF		200	178	700/80/6	Stream sampled in 1998 with NFC - no habitat at that time. At present, very poor RB habitat. Flow is very shallow over fines and organics, as well as gravels deposited d/s from road. Most flow from ditch collection water - historically much less flow than at present due to road construction/ ditch water input.
Broman	14	61	TAM2B (Stream1)	Not Coded	1	1996 1:20K Reconnaissance Inventory	"Endako Area"	N	07/11/00	(S6)	1.3	1.4	[illegible]	NFC	None, but only marginal habitat	From site	L	EF		174	238	700/80/6	Poor overall RB habitat - some deep pools but flows generally over fines. No spawning or overwintering habitat. Unlikely utilized by RB, but accessible from d/s reaches. Actual mainstem of TAM2.
Maxan	15	62		460-971300-90900	2	1998 1:20K Reconnaissance Inventory	"Subdrainages in the Bulkley River Watershed"	N	10/13/00	(S3)	4.8	1.7	[illegible]	NFC (RB)	None	N/A	L	EF		100	237	700/80/6	Sampled proximal reaches in 1997. Caught RB in reach 1 d/s, but NVC in reach 5. Channel totally dry, large cobble substrate. No significant RB habitat, but accessible from d/s reaches at higher flow. Unlikely fish use, but easily accessible when watered.
Allin Creek	15	63	32km	Not Coded		1998 1:20K Reconnaissance Inventory	"Subdrainages in the Nechako River Watershed"	N	10/13/00	NCD			N	None	Lack of channel	From site	N	NS					Drainage lacks fluvium, continuous banks and channel bed. Not a creek by FPC definition. No fish habitat present, no sediment deposit possible in d/s reaches due to lack of flow

Table 1: Operational Stream Inventory Data, 2000.

Sub-unit	Project Map #	Site #	Stream ID (Name, Alias, ILP, Assigned Name)	Watershed Code	Reach #	Original Inventory	Original Report	Previously sampled? (Y/N)	Survey Date	RMA Class (S1-S6, (S1)-(S6), NCD)	Average Gradient (%)	Average Channel Width (m)	FPC Fish presence (Y/N/[illegible])	Fish Species Codes ()=Inferred	Fish Barrier Type	Fish Barrier Location	Fish Habitat Value (H, M, L, N)	Capture Method	MT# # of hours	EF length (m)	EF time (s)	EF settings (V/Hz/us)	Comments
Allin Creek	15	64	36.9km	Not Coded		1998 1 20K Reconnaissance Inventory	"Subdrainages in the Nechako River Watershed"	N	10/13/00	S6	2.5	0.9	N	NFC	Lack of habitat	From site	N	EF		100	176	600/80/6	Tiny, shallow trickle over fines and organics, and some cobbles d/s from road Steep gradient at mouth with Allin Creek blocks fish access to this reach No suitable RB habitat present
Allin Creek	15	65	ILP 20063	180-374000-95200-66500-6150	2	1998 1 20K Reconnaissance Inventory	"Subdrainages in the Nechako River Watershed"	N	10/13/00	S6	3.3	1.7	N	NFC	18m high X 45m long cascade. documented in 1998 Inventory	87m u/s from mouth	L	EF		100	113	700/80/6	Reach 1 of this stream sampled in 1998 with NFC and cascade barrier documented Very poor habitat, isolated above cascade obstruction near mouth with Allin Creek No perennial habitat present, no fish use.

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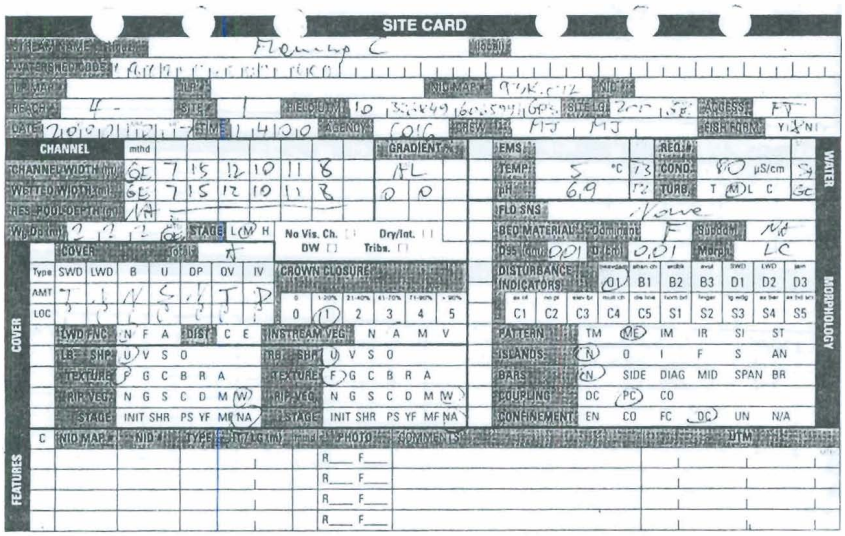
5. List of Appendices

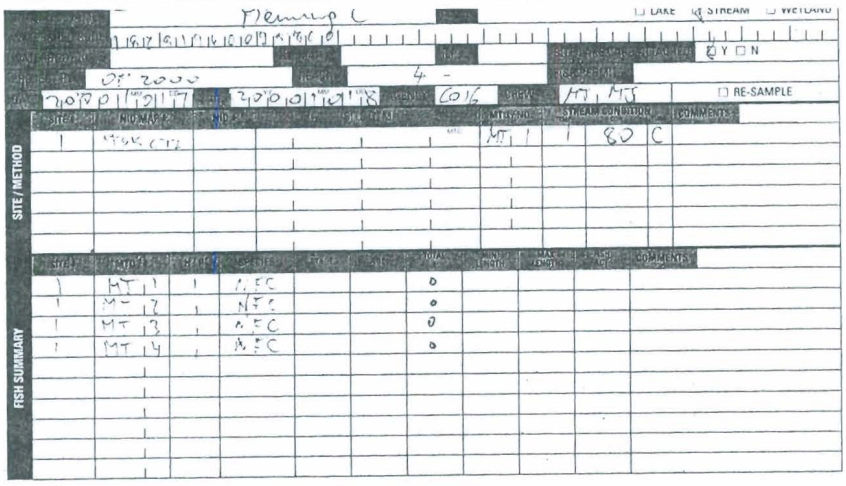
Appendix I: **Copies of Field Cards**

Appendix II: **Photographs**

Appendix III: **Hardcopy Maps**

Appendix I: Copies of Field Cards (Arranged by Site)


SITE CARD
Fleming C
CHANNEL
WATER
COVER
MORPHOLOGY
FEATURES


Fleming C
SITE / METHOD
FISH SUMMARY

NET / TRAP SPECIFICATIONS

GEAR SPECIFICATIONS

C													
	1	MT 1	1	10 17	1400	10 18	0900	MT		2.0			
	1	MT 2	1	10 17	1400	10 18	0900	MT		1.0			
	1	MT 3	1	10 17	1400	10 18	0900	MT		1.5			
	1	MT 4	1	10 17	1400	10 18	0900	MT		1.0			

ELECTROFISHER SPECIFICATIONS

COMMENTS

HABITAT QUALITY

See prev card

FSZ

PHOTO DOCUMENTATION

				COMMENTS
015	22	51	X	1200

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C

site ~ 3 km d/s from
site 2 = ~ 500 m u/s from
FUL mouth

C

Rev. Apr. 1998

FISH COLLECTION FORM

☐ LAKE ☒ STREAM ☐ WETLAND

LSU SU 1969 (?) 0 0 / 5 8 0 0 ...

☒ Y ☐ N

5 -

☐ RE-SAMPLE

FISH SUMMARY

SPECIES	STAGE	TOTAL #	MIN LENGTH	MAX LENGTH	FISH ACT
NFC	0	0			
LSU	J	13	51	127	R
LSU	J	5	65	68	R
LSU	J	1	64	64	R

SITE CARD

STREAM NAME (gaz): FLEMING C (local)

WATERSHED CODE:

NID MAP #: [illegible]

REACH #: [illegible] SITE #: 2 FIELD UTM: 10 [illegible] SITE LG: [illegible] ACCESS: [illegible]

DATE: [illegible] TIME: [illegible] AGENCY: C016 CREW: [illegible] FISH FORM: Y N

CHANNEL	mthd								GRADIENT %
CHANNEL WIDTH (m)									
WETTED WIDTH (m)									
RES. POOL DEPTH (m)									

W.Dp (m): STAGE L M H · No Vis. Ch. · Dry/Int. · DW · Tribs.

EMS: · REQ. #: · TEMP: °C · COND: µS/cm · pH: · TURB: T M L C

FLD SNS: · BED MATERIAL: Dominant · Subdom: · D95 (cm): · D (cm): · Morph:

COVER · Total

Type	SWD	LWD	B	U	DP	OV	IV
AMT							
LOC							

CROWN CLOSURE: 0 (0) · 1 (1-20%) · 2 (21-40%) · 3 (41-70%) · 4 (71-90%) · 5 (>90%)

DISTURBANCE INDICATORS: O1 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

LWD FNC: N F A · DIST: C E · INSTREAM VEG: N A M V

LB SHP: U V S O · RB SHP: U V S O

TEXTURE: F G C B R A · TEXTURE: F G C B R A

RIP VEG: N G S C D M W · RIP VEG: N G S C D M W

STAGE: INIT SHR PS YF MF NA · STAGE: INIT SHR PS YF MF NA

PATTERN: TM ME IM IR SI ST

ISLANDS: N O I F S AN

BARS: N SIDE DIAG MID SPAN BR

COUPLING: DC PC CO

CONFINEMENT: EN CO FC OC UN N/A

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R F		

SITE CARD

STREAM NAME (gaz): FLEMING C (local)

WATERSHED CODE: [illegible]

ILP MAP #: · ILP #: · NID MAP #: 93K.067 (?) · NID #:

REACH #: 5 - SITE #: 3 FIELD UTM: 10 376719 6060105 (?) SITE LG: 200 GF ACCESS: [illegible]

DATE: 2000 10 17 TIME: 1200 AGENCY: C016 CREW: MS MJ FISH FORM: Y N (x)

CHANNEL	mthd							GRADIENT %
CHANNEL WIDTH (m)	6	5	12	10	6	4	7	[illegible]
WETTED WIDTH (m)	6	5	12	10	6	4	7	0 0
RES. POOL DEPTH (m)	[illegible]							

W.Dp (m): 1.0, 2.0, 2.0, 2.6 (?) STAGE L (M) H · No Vis. Ch. · Dry/Int. · DW · Tribs.

EMS: · REQ. #: · TEMP: 5 °C · COND: 80 µS/cm · pH: 6.9 · TURB: T M L (C)

FLD SNS: [illegible] · BED MATERIAL: Dominant: F · Subdom: [illegible] · D95 (cm): 0.01 · D (cm): 0.01 · Morph: LC

COVER · Total: T

Type	SWD	LWD	B	U	DP	OV	IV
AMT	T	T	N	S	T	T	D
LOC	[illegible]	[illegible]	[illegible]	[illegible]	C	C	C

CROWN CLOSURE: 0 · (1) · 2 · 3 · 4 · 5

DISTURBANCE INDICATORS: (O1) B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

LWD FNC: (N) F A · DIST: C E · INSTREAM VEG: N (A) M (V)

LB SHP: (U) V S O · RB SHP: (U) V S O

TEXTURE: (F) G C B R A · TEXTURE: (F) G C B R A

RIP VEG: N G S C D M (W) · RIP VEG: N G S C D M (W)

STAGE: INIT SHR PS YF MF NA · STAGE: INIT SHR PS YF MF NA

PATTERN: TM ME (IM) IR SI ST

ISLANDS: N O I F S (AN)

BARS: (N) SIDE DIAG MID SPAN BR

COUPLING: DC (PC) CO

CONFINEMENT: EN CO FC (OC) UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

FISH COLLECTION FORM

Fleming C

☐ LAKE ☒ STREAM ☐ WETLAND

182 819 66 09 5800 (?)

☒ Y ☐ N

OP 2000 (?)

5 -

2000 10 17 · 2000 10 17 (?) · C016 · MS MJ

☐ RE-SAMPLE

SITE / METHOD

SITE	NID MAP #			MTD / NO		STREAM CONDITION		COMMENTS
3	93K.067 (?)			MT	5	80	M	

FISH SUMMARY

SITE	MTD / #	H P	SPECIES	STAGE	AGE	TOTAL #	MIN LENGTH	MAX LENGTH	FISH ACT	COMMENTS
3	MT 1		NFC							
3	MT 2		NFC							
3	MT 3		NFC							
3	MT 4		LSU			6	52		R	

GEAR SPECIFICATIONS

NET / TRAP SPECIFICATIONS

C													
	3	MT 1	1	10 17	1200	10 18	[illegible]	MT		2.0		P	
	3	MT 2	1	10 17	1200	10 18	[illegible]	↓		1.5		B	
	3	MT 3	1	10 17	1200	10 18	[illegible]	↓		1.5		B	
	3	MT 4	1	10 17	1200	10 18	[illegible]	↓		1.0		B	

ELECTROFISHER SPECIFICATIONS

COMMENTS

5? 57, 57, 64, 75, 90 [illegible] MT 4

HABITAT QUALITY

See prev. card

FSZ

PHOTO DOCUMENTATION

				COMMENTS
OP 5	28	ST	8	1156
OP 5	28	8	18.5	1157

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C

site ~ 1 km u/s
from site 2

C

HABITAT QUALITY

[illegible]

FSZ

PHOTO DOCUMENTATION

				COMMENTS
[illegible]	19	[illegible]	8	1116

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C

Site = see [illegible]

Water sample

C

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AP SP

S

GEAR SPECIFICATIONS

C													
	[illegible]	[illegible]	1	[illegible]	[illegible]	10 18	[illegible]	[illegible]		[illegible]		[illegible]	
	[illegible]	[illegible]	1	[illegible]	[illegible]	10 18	[illegible]			[illegible]		[illegible]	
	[illegible]	[illegible]	1	[illegible]	[illegible]	10 18	[illegible]			[illegible]		[illegible]	
	[illegible]	[illegible]	1	[illegible]	[illegible]	10 18	1027					[illegible]	

ELECTROFISHER SPECIFICATIONS

COMMENTS

MT 4 - [illegible] 64
MT ? - [illegible] 68, 65, 65, 67, 68
MT ? - [illegible] 53, 45, 147, 13?, [illegible]

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CARD

OF

SITE CARD

STREAM NAME (gaz): | (local):
WATERSHED CODE:
ILP MAP #: | ILP #: | NID MAP #: | NID #:
REACH #: 7 - | SITE #: 4 | FIELD UTM: 10 | SITE LG: | ACCESS:
DATE: | TIME: 1615 | AGENCY: | CREW: | FISH FORM: Y N

CHANNEL	mthd							GRADIENT %	
CHANNEL WIDTH (m)		2.9	2.4						
WETTED WIDTH (m)				1.6	2.1				
RES. POOL DEPTH (m)		.21	.26		.19	.24	.30		
W_b Dp (m)					STAGE L M H				

No Vis. Ch. ☐ Dry/Int. ☐ DW ☐ Tribs. ☐

EMS: | REQ. #:
TEMP: °C | COND: 16 µS/cm
pH: | TURB: T M L C
FLO SNS:
BED MATERIAL: Dominant: C | Subdom: G
D95 (cm): 20 | D (cm): | Morph:

COVER — Total: M

Type	SWD	LWD	B	U	DP	OV	IV
AMT					D	S	
LOC							

CROWN CLOSURE

0	1-20%	21-40%	41-70%	71-90%	> 90%
0	1	2	3	4	5

DISTURBANCE INDICATORS

beaver dam	aban ch	avulsn	avul	SWD	LWD	jam
O1	B1	B2	B3	D1	D2	D3

ex rif	no pl	elev br	mult ch	dis line	hom bd	finger	lg wdg	ex bar	ex bd scr
C1	C2	C3	C4	C5	S1	S2	S3	S4	S5

LWD FNC: N F A | DIST: C E | INSTREAM VEG: N A M V
LB SHP: U V S O | RB SHP: U V S O
TEXTURE: F G C B R A | TEXTURE: F G C B R A
RIP VEG: N G S C D M W | RIP VEG: N G S C D M W
STAGE: INIT SHR PS YF MF NA | STAGE: INIT SHR PS YF MF NA

PATTERN: TM ME IM IR SI ST
ISLANDS: N O I F S AN
BARS: N SIDE DIAG MID SPAN BR
COUPLING: DC PC CO
CONFINEMENT: EN CO FC OC UN N/A

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM

COVER | WATER | MORPHOLOGY

FISH COLLECTION FORM

LAKE ☐ STREAM ☐ WETLAND ☐
Y ☐ N ☐
☐ RE-SAMPLE

SITE / METHOD

4			10					

FISH SUMMARY

										COMMENTS
4					O					

SITE CARD

STREAM NAME (gaz): | (local):
WATERSHED CODE:
ILP MAP #: | ILP #: | NID MAP #: 93K.072 | NID #:
REACH #: 3 - | SITE #: 5 | FIELD UTM: 10 330022 6068878 GPS | SITE LG: 170 GC | ACCESS: FT
DATE: | TIME: 0910 | AGENCY: | CREW: SR MG | FISH FORM: Y ☐ N ☒

CHANNEL	mthd							GRADIENT %	
CHANNEL WIDTH (m)									
WETTED WIDTH (m)									
RES. POOL DEPTH (m)									
					STAGE L M (H)				

No Vis. Ch. ☑ Dry/Int. ☐ DW ☐ Tribs. ☐

EMS: | REQ. #:
TEMP: °C | COND: µS/cm
pH: | TURB: T M L C
FLO SNS:
BED MATERIAL: Dominant: | Subdom:
D95 (cm): | D (cm): | Morph:

COVER — Total:

Type	SWD	LWD	B	U	DP	OV	IV
AMT							
LOC							

CROWN CLOSURE

0	1-20%	21-40%	41-70%	71-90%	> 90%
0	1	2	3	4	5

DISTURBANCE INDICATORS

beaver dam	aban ch	avulsn	avul	SWD	LWD	jam
O1	B1	B2	B3	D1	D2	D3

ex rif	no pl	elev br	mult ch	dis line	hom bd	finger	lg wdg	ex bar	ex bd scr
C1	C2	C3	C4	C5	S1	S2	S3	S4	S5

LWD FNC: N F A | DIST: C E | INSTREAM VEG: N A M V
LB SHP: U V S O | RB SHP: U V S O
TEXTURE: F G C B R A | TEXTURE: F G C B R A
RIP VEG: N G S C D M W | RIP VEG: N G S C D M W
STAGE: INIT SHR PS YF MF NA | STAGE: INIT SHR PS YF MF NA

PATTERN: TM ME IM IR SI ST
ISLANDS: N O I F S AN
BARS: N SIDE DIAG MID SPAN BR
COUPLING: DC PC CO
CONFINEMENT: EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		

COVER | WATER | MORPHOLOGY

SITE CARD

STREAM NAME (gaz): | (local): A
WATERSHED CODE:
ILP MAP #: | ILP #: | NID MAP #: | NID #:
REACH #: 1 - | SITE #: 6 | FIELD UTM: 10 | SITE LG: | ACCESS:
DATE: 2 | TIME: 1515 | AGENCY: | CREW: | FISH FORM: Y ☒ N ☐

CHANNEL	mthd							GRADIENT %	
CHANNEL WIDTH (m)	MC	1.4	1.0	1.6	0.9	1.1	1.7		
WETTED WIDTH (m)	MC					0.7		5	7
RES. POOL DEPTH (m)		.49	.04	.07				7	8
W_b Dp (m)					STAGE L M H				

No Vis. Ch. ☐ Dry/Int. ☑ DW ☐ Tribs. ☐

EMS: | REQ. #:
TEMP: 4.0 °C | COND: 12C µS/cm
pH: 6.6 | TURB: T M L (C)
FLO SNS: N
BED MATERIAL: Dominant: C | Subdom:
D95 (cm): 25 | D (cm): 4 | Morph: CP

COVER — Total: T

Type	SWD	LWD	B	U	DP	OV	IV
AMT						S	
LOC							

CROWN CLOSURE

0	1-20%	21-40%	41-70%	71-90%	> 90%
0	1	2	(3)	4	5

DISTURBANCE INDICATORS

beaver dam	aban ch	avulsn	avul	SWD	LWD	jam
O1	B1	B2	B3	D1	D2	D3

ex rif	no pl	elev br	mult ch	dis line	hom bd	finger	lg wdg	ex bar	ex bd scr
C1	C2	C3	C4	C5	S1	S2	S3	S4	S5

LWD FNC: N (F) A | DIST: C (E) | INSTREAM VEG: N A (M) V
LB SHP: (U) V S O | RB SHP: U (V) S O
TEXTURE: (F) G (C) B R A | TEXTURE: (F) G (C) B R A
RIP VEG: N G (S) C D M W | RIP VEG: N G (S) C D M W
STAGE: INIT SHR PS YF MF (NA) | STAGE: INIT SHR PS YF MF (NA)

PATTERN: TM ME IM IR (SI) ST
ISLANDS: (N) O I F S AN
BARS: N SIDE DIAG MID SPAN BR
COUPLING: (DC) PC CO
CONFINEMENT: EN CO FC (OC) UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

COVER | WATER | MORPHOLOGY

HABITAT QUALITY

[illegible]

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	FRAME #	FOC LG	DIR	COMMENTS
31	20	ST	U	FR1

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C Site [illegible]

Creek is mid-size [illegible] [illegible] [illegible], no fish [illegible] [illegible] [illegible]. Seasonal [illegible] no good [illegible] for rearing, [illegible] [illegible]

C NAC - S6 !

= [illegible] [illegible]

- also [illegible] this creek [illegible] [illegible] & Fleming road - no fish [illegible] [illegible] shallow [illegible]

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HABITAT QUALITY

[illegible] in channel

FS3 ☐

PHOTO DOCUMENTATION

ROLL #	FRAME #	FOC LG	DIR	COMMENTS
31	21	ST	U	Set only small pockets of H_2O, discontinuity

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C Site from [illegible] - mapped wrong - just a small trib to FUHZ into wetland area/ no bank; walked this down from Fleming - some channelized sections, but mostly gully, draw through devil's club with no continuous scoured channel bed, [illegible] fish habitat

C or passage. Channelized u/s of Fleming road but no [illegible], [illegible] [illegible] fish use

NCD

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GEAR SPECIFICATIONS

ELECTROFISHER SPECIFICATIONS

4	[illegible]	[illegible]	605	1640	49%	7.0	1.9	C	500	90	6	[illegible]

COMMENTS

Good [illegible] habs - [illegible] by [illegible]

HABITAT QUALITY

[illegible]

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	FRAME #	FOC LG	DIR	COMMENTS
31	18	ST	D	[illegible]
31	19	ST	U	[illegible]

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C Site [illegible]

1 [illegible]

[illegible]

C [illegible]

Steep [illegible] [illegible] [illegible] height [illegible] [illegible] [illegible]

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FISH COLLECTION FORM

(local) H — ☐ LAKE ☐ STREAM ☐ WETLAND

☐ Y ☐ N

1 -

COG — SP

☐ RE-SAMPLE

SITE / METHOD

6	93K.012		10 [illegible] GPS	EF 1				

FISH SUMMARY

6	EF 1		NFC			0					

SITE CARD

STREAM NAME (gaz) | (local) Trib B

WATERSHED CODE 167 [illegible]

ILP MAP # | ILP # | NID MAP # 93K.012 | NID #

REACH # 1 - | SITE # 7 | FIELD UTM 10 [illegible] GPS | SITE LG [illegible] | ACCESS

DATE 2001[illegible] | TIME 1010 | AGENCY COG | CREW SP, MG | FISH FORM Y☒ N☐

CHANNEL	mthd						GRADIENT %	
CHANNEL WIDTH (m)	NA						AL	
WETTED WIDTH (m)							0.5	1
RES. POOL DEPTH (m)							0.5	0.5

Wb Dp (m) — STAGE L (M) H — No Vis. Ch. ☐ Dry/Int. ☐ DW ☐ Tribs. ☐

COVER — Total N

Type	SWD	LWD	B	U	DP	OV	IV
AMT							
LOC							

CROWN CLOSURE: 0 (0) 1 (1-20%) 2 (21-40%) 3 (41-70%) 4 (71-90%) 5 (>90%)

LWD FNC N F A — DIST C E

LB SHP U V (S) O — RB SHP U V (S) O

TEXTURE (F) G C B R A — TEXTURE (F) G C B R A

RIP VEG N G (S) C D M (W) — RIP VEG N G (S) C D M (W)

STAGE INIT SHR PS YF MF (NA) — STAGE INIT SHR PS YF MF (NA)

INSTREAM VEG N A M V

WATER: EMS | TEMP °C | REQ # | COND µS/cm | pH | TURB T M L (C)

MORPHOLOGY: FLD SNS N | BED MATERIAL Dominant F | Subdom N | D95 (cm) .01 | D (cm) .01 | Morph LC

DISTURBANCE INDICATORS: O1 B1 B2 B3 D1 D2 D3 / C1 C2 C3 (C4) C5 S1 S2 S3 S4 S5

PATTERN TM ME (IM) IR SI ST

ISLANDS N O I (F) S AN

BARS (N) SIDE DIAG MID SPAN BR

COUPLING (DC) PC CO

CONFINEMENT EN CO FC OC (UN) N/A

FEATURES: C | NID MAP # | NID # | TYPE | HT/LG (m) | mthd | PHOTO R__ F__ | COMMENTS | UTM

SITE CARD

STREAM NAME (gaz) | (local) Trib C

WATERSHED CODE

ILP MAP # | ILP # | NID MAP # 93K.012 | NID #

REACH # 1 - | SITE # 8 | FIELD UTM | SITE LG 150 GE | ACCESS TT

DATE 2001[illegible] | TIME 1000 | AGENCY COG | CREW SP, MG | FISH FORM Y☐ N☒

CHANNEL mthd | GRADIENT % — CHANNEL WIDTH (m) | WETTED WIDTH (m) | RES. POOL DEPTH (m)

STAGE L M (H) — No Vis. Ch. ☒ Dry/Int. ☐ DW ☐ Tribs. ☐

COVER — Total

Type	SWD	LWD	B	U	DP	OV	IV
AMT							
LOC							

CROWN CLOSURE: 0 1 2 3 4 5

N F A — DIST C E | INSTREAM VEG N A M V

U V S O | RB SHP U V S O

F G C B R A | TEXTURE F G C B R A

N G S C D M W | RIP VEG N G S C D M W

INIT SHR PS YF MF NA | STAGE INIT SHR PS YF MF NA

WATER: EMS | TEMP °C | REQ # | COND µS/cm | pH | TURB T M L C

MORPHOLOGY: FLD SNS | BED MATERIAL Dominant | Subdom | D95 (cm) | D (cm) | Morph

DISTURBANCE INDICATORS: O1 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

PATTERN TM ME IM IR SI ST — ISLANDS N O I F S AN — BARS N SIDE DIAG MID SPAN BR — COUPLING DC PC CO — CONFINEMENT EN CO FC OC UN N/A

FEATURES: C | NID # | TYPE | HT/LG (m) | PHOTO R__ F__ | COMMENTS | UTM

SITE CARD

WATERSHED CODE [illegible]

ILP MAP # | ILP # | NID MAP # 93K.012 | NID #

REACH # 2 - | SITE # 9 | FIELD UTM | SITE LG 100 GE | ACCESS [illegible]

DATE 2001[illegible] | TIME 1000 | AGENCY COG | CREW SP, MTS | FISH FORM Y☒ N☐

CHANNEL	mthd	1						GRADIENT %	
CHANNEL WIDTH (m)	AC	2.1	2.9	2.4	1.7	2.8	2.4	AL	
WETTED WIDTH (m)	H	1.0	1.2	0.9	1.2	1.1	1.7	3	3
RES. POOL DEPTH (m)	MJ	0.05	.18	.21	.16	.11		2	3

Wb Dp (m) 0.2 .2 .3 .3 — STAGE (L) M H — No Vis. Ch. ☐ Dry/Int. ☐ DW ☐ Tribs. ☐

COVER — Total M

Type	SWD	LWD	B	U	DP	OV	IV
AMT	N	N	S	T	D	S	N
LOC							

CROWN CLOSURE: 0 1 2 (3) 4 5

LWD FNC (N) F A — DIST C E | INSTREAM VEG (N) A M V

LB SHP U V (S) O | RB SHP U V (S) O

TEXTURE (F) (G) (C) B R A | TEXTURE (F) (G) (C) B R A

RIP VEG N G (S) C D M W | RIP VEG N G (S) C D M W

STAGE INIT SHR PS YF MF (NA) | STAGE INIT SHR PS YF MF (NA)

WATER: EMS | TEMP 12 °C | REQ # | COND 90 µS/cm | pH 7.6 | TURB T M L (C)

MORPHOLOGY: FLD SNS | BED MATERIAL Dominant C | Subdom G | D95 (cm) 70 | D (cm) 7 | Morph RP

DISTURBANCE INDICATORS: O1 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

PATTERN TM ME IM IR (SI) ST

ISLANDS (N) O I F S AN

BARS (N) SIDE DIAG MID SPAN BR

COUPLING (DC) PC CO

CONFINEMENT EN CO FC (OC) UN N/A

C	NID MAP #	NID #	TYPE	HT/LG (m)	mthd	PHOTO	COMMENTS	UTM
	[illegible]		CV	2	GE	R 1 F 4	Note P's on inside	
						R__ F__	-CV BAR [illegible]	
						R__ F__		
						R__ F__		

HABITAT QUALITY

[illegible]

FSZ

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
081	5	ST	U	
081	6	ST	D	
081	11	ST	U	[illegible]

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C Site on d/s side of road
– [illegible] culvert is definitely [illegible] to fish passage
1 [illegible] channel but possibly d/t [illegible] road?
2 rip veg: alder/willow shrub – [illegible]

C – [illegible]

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HABITAT

FSZ

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
				Devil's Club?

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C Site - [illegible]
walked down the creek from F[illegible] road.
Slightly channelized @ road, but to mouth
with FUHI, "creek" is just a gully
draw/seepage dispersed in devil's
club floor of gully. No fish hab

C [illegible], no fish passage possible.
Also [illegible] and [illegible]

NCD

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HABITAT QUALITY

FSZ

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
31	22	ST	U	[illegible]

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C Site - [illegible]
this "stream" is mainstem for system.
However, wetland [illegible]
[illegible] for [illegible]
[illegible] channel at outlet into [illegible]
[illegible] "channel" [illegible]

C with [illegible] dispersed [illegible] throughout
[illegible]
[illegible]
5-10 cm deep [illegible]
Slightly [illegible]

NCD

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GEAR SPECIFICATION

ELECTROFISHER SPECIFICATIONS

6 [illegible]

COMMENTS

[illegible]

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№ 39601

CARD ___ OF ___

FISH COLLECTION FORM

Fleming 93.9 | FHHii | ☐ LAKE ☑ STREAM ☐ WETLAND

☑ Y ☐ N

2 -

7 0 0 0 7 1 1 | C0% | SP MT | ☐ RE-SAMPLE

SITE / METHOD

9	94.0%						EF	12	90	C	

FISH SUMMARY

9	EF	1	RB	J		4	66	76	R	

SITE CARD

STREAM NAME (gaz) Fleming 93.8 | LOCAL FHHii

WATERSHED CODE 108 08 0 0 6 0 0 5 8 0 0 4 8 0 0 8 0 0 0

NID MAP 93 J 72 | NID#

REACH 2 - | SITE 10 | SITE LG 70 | ACCESS VH

DATE 7 0 0 0 7 1 1 | TIME 1 0 3 0 | AGENCY C0% | CREW SP MT | FISH FORM Y☑ N☐

CHANNEL	mthd						GRADIENT %
CHANNEL WIDTH (m)	DC	1.9	7.4	7.1	7.6	1.8	AL
WETTED WIDTH (m)	DC	1.1	1.4	7.1	7.0	1.7	3 / 7
RES POOL DEPTH (m)	MS	0.16	.15	.18	.3	.2	11 / 11

W.D. (m) .7 .2 .3 MS | STAGE Ⓛ M H | No Vis. Ch. ☐ | Dry/Int. ☐ | DW ☐ | Tribs. ☐

EMS | TEMP 17 °C | pH 7.6 | REQ # | COND 90 µS/cm | TURB T M L Ⓒ

FLD SNS

BED MATERIAL Dominant C | Subdom. G

D95 (cm) 75 | D (cm) 7 | Morph RP

COVER Total M

Type	SWD	LWD	B	U	DP	OV	IV
AMT	T	T	S	T	D	S	N
LOC							

CROWN CLOSURE: 0 | 1 | 2 | ③ | 4 | 5

LWD FNC N Ⓔ A | DIST C Ⓔ | INSTREAM VEG Ⓝ A M V

LB SHP U V Ⓢ O | RB SHP U V Ⓢ O

TEXTURE Ⓕ Ⓖ Ⓒ B R A | TEXTURE Ⓕ Ⓖ Ⓒ B R A

RIP VEG N G Ⓢ C D M W | RIP VEG N G Ⓢ C D M W

STAGE INIT SHR PS YF MF ⓃA | STAGE INIT SHR PS YF MF ⓃA

DISTURBANCE INDICATORS: O1 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 Ⓢ3 S4 S5

PATTERN TM ME IM IR ⓈI ST

ISLANDS Ⓝ O I F S AN

BARS N ⓈIDE DIAG MID SPAN BR

COUPLING ⒹC PC CO

CONFINEMENT EN CO FC ⓄC UN N/A

C	NID MAP #	NID #	TYPE	HT / LG (m)	PHOTO	COMMENTS	UTM
					R___ F___		

FISH COLLECTION FORM

Fleming 95.6 | FHHii | ☐ LAKE ☑ STREAM ☐ WETLAND

☑ Y ☐ N

2 -

7 0 0 0 7 1 1 | C0% | SP MT | ☐ RE-SAMPLE

SITE / METHOD

10	95.6%						EF	12	90	C	

FISH SUMMARY

10	EF	1	NFC			0				

SITE CARD

STREAM NAME (gaz)

WATERSHED CODE 108 08 0 0 6 0 0 5 8 0 0 4 5 0 0 7 0 3 0 1 B 5 1

NID MAP 93K072 | NID#

REACH 1 - | SITE 11 | FIELD UTM 10 599 96 6078 | SITE LG 150 | ACCESS FT

DATE 7 0 0 0 7 1 1 | TIME 1 8 1 5 | AGENCY C0% | CREW SP MG | FISH FORM Y☒ N☐

CHANNEL	mthd						GRADIENT %
CHANNEL WIDTH (m)	MS	.3	.5	.7	.6	.5	AL
WETTED WIDTH (m)	MS	0	0	0	0.3	0	5 / 7
RES POOL DEPTH (m)	MS	.02	.03	.04			7 / 6

W.D. (m) .1 .1 .2 MS | STAGE L M H | No Vis. Ch. ☐ | Dry/Int ☑ | DW ☐ | Tribs. ☐

EMS | TEMP 4 °C | pH 9.4 | REQ # | COND 50 µS/cm | TURB T M L Ⓒ

FLD SNS N

BED MATERIAL Dominant F | Subdom. C

D95 (cm) 20 | D (cm) .5 | Morph CP

COVER Total T

Type	SWD	LWD	B	U	DP	OV	IV
AMT	N	N	N	N	D	N	N
LOC					P		

CROWN CLOSURE: 0 | 1 | 2 | ③ | 4 | 5

LWD FNC N Ⓔ A | DIST C Ⓔ | INSTREAM VEG Ⓝ A M V

LB SHP U V Ⓢ O | RB SHP U Ⓥ S O

TEXTURE Ⓕ G C B R A | TEXTURE Ⓕ G C B R A

RIP VEG N G Ⓢ C D M W | RIP VEG N G Ⓢ C D M W

STAGE INIT SHR PS YF MF ⓃA | STAGE INIT SHR PS YF MF ⓃA

DISTURBANCE INDICATORS: O1 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

PATTERN TM ME IM ⒾR SI ST

ISLANDS Ⓝ O I F S AN

BARS Ⓝ SIDE DIAG MID SPAN BR

COUPLING DC ⓅC CO

CONFINEMENT EN CO ⒻC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	PHOTO	COMMENTS	UTM
					R___ F___		
					R___ F___		
					R___ F___		
					R___ F___		

HABITAT QUALITY

FSZ

PHOTO DOCUMENTATION

ROLL	#	FOC L	DIR	COMMENTS
[illegible]	17	[illegible]	[illegible]	[illegible]

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C		C	
	[illegible]		[illegible]
1	only a couple [illegible]		
2	[illegible]		[illegible]

GEAR SPECIFICATIONS

NET / TRAP SPECIFICATIONS

ELECTROFISHER SPECIFICATIONS

10			10:20	10:45	313	180	1.9	0	700	80	6	SR	[illegible]

COMMENTS

[illegible]

HABITAT QUALITY

Similar to d/s - [illegible] little [illegible], but [illegible] suitable spawning gravel [illegible]

- Not high-value [illegible], but moderate [illegible]

FSZ

PHOTO DOCUMENTATION

ROLL	#	FOC L	DIR	COMMENTS
001	8	55	D	very overgrown [illegible], shrubs [illegible]
				- note spawning gravels in background

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C		C	
	Sites on u/s side of road		[illegible] d/s [illegible]
	muddy, [illegible]		
	but [illegible] u/s [illegible]		
	channel		
	- abundant gammaridae u/s [illegible]		
	[illegible] observed d/s		

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GEAR SPECIFICATIONS

ELECTROFISHER SPECIFICATIONS

9	[illegible]	1	10:05	10:06	6	3	2.0	0	600	80	6	SR	[illegible]

COMMENTS

- minimal sampling, presence only
- RB right away, abundant

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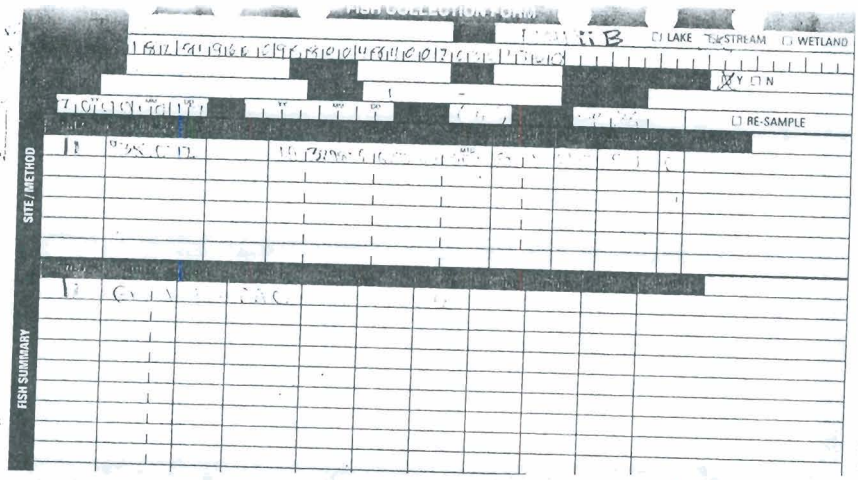
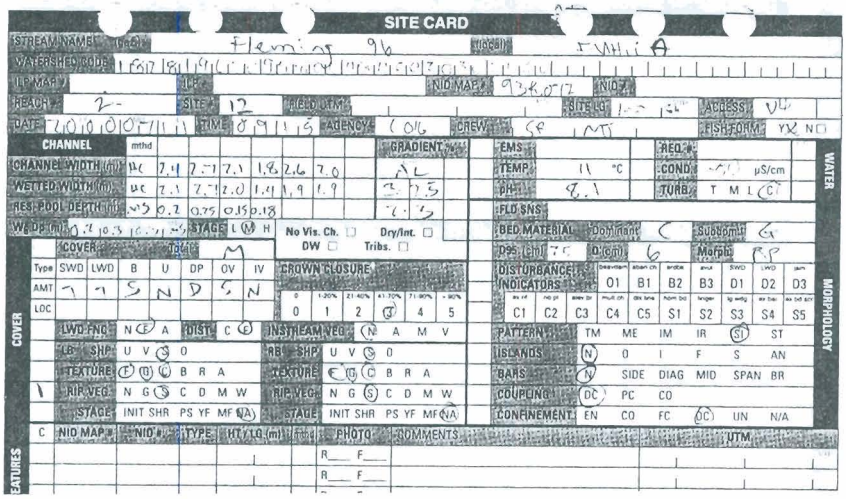
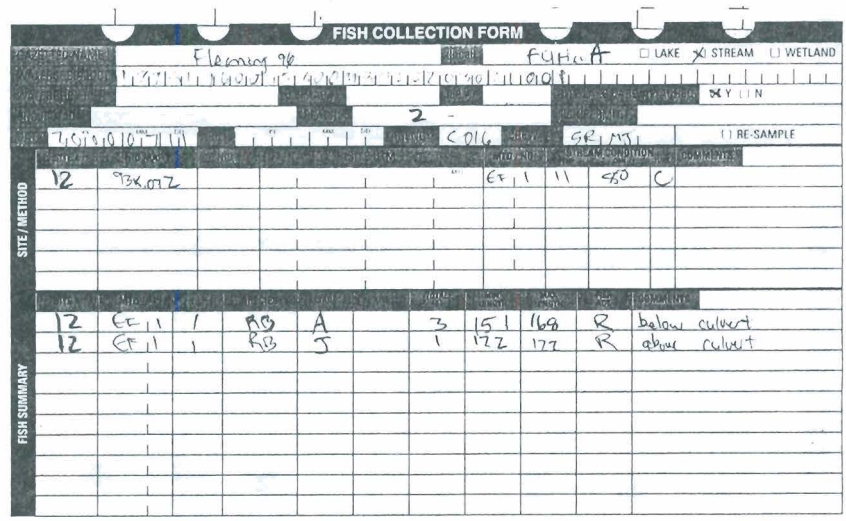
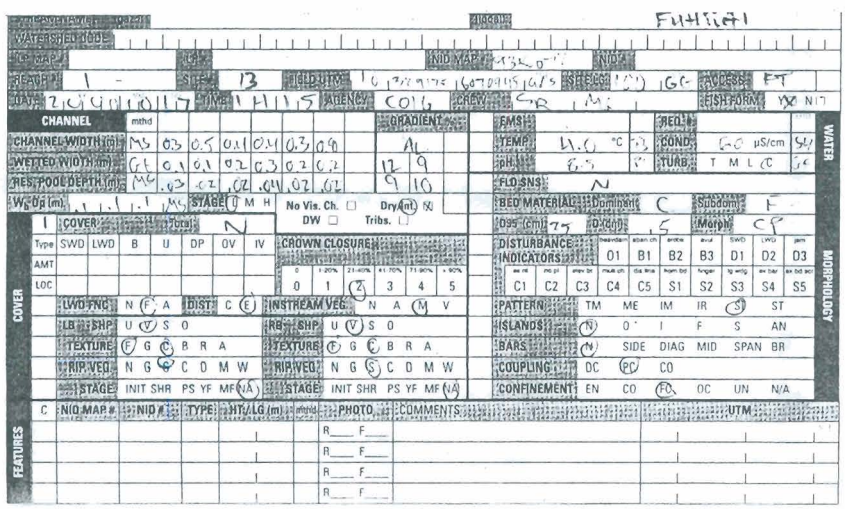
№ 020173

CARD OF


FISH COLLECTION FORM
LAKE
STREAM
WETLAND
RE-SAMPLE
SITE / METHOD
FISH SUMMARY


SITE CARD
STREAM NAME
Fleming 96
WATERSHED CODE
REACH
SITE
DATE
TIME
AGENCY
CREW
CHANNEL
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
WD Dp (m)
GRADIENT
No Vis. Ch.
Dry/Int.
DW
Tribs.
COVER
CROWN CLOSURE
LWD FNC
LB SHP
RB SHP
TEXTURE
RIP VEG
STAGE
INSTREAM VEG
FEATURES
NID MAP #
NID #
TYPE
HT/LG (m)
PHOTO
COMMENTS
UTM
WATER
EMS
REQ #
TEMP
COND
µS/cm
pH
TURB
FLO SNS
BED MATERIAL
Dominant
Subdom
D95 (cm)
D (cm)
Morph
DISTURBANCE INDICATORS
MORPHOLOGY
PATTERN
ISLANDS
BARS
COUPLING
CONFINEMENT


FISH COLLECTION FORM
LAKE
STREAM
WETLAND
RE-SAMPLE
SITE / METHOD
FISH SUMMARY


WATERSHED CODE
REACH
SITE
DATE
TIME
AGENCY
CREW
CHANNEL
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
WD Dp (m)
GRADIENT
No Vis. Ch.
Dry/Int.
DW
Tribs.
COVER
CROWN CLOSURE
LWD FNC
LB SHP
RB SHP
TEXTURE
RIP VEG
STAGE
INSTREAM VEG
FEATURES
NID MAP #
NID #
TYPE
HT/LG (m)
PHOTO
COMMENTS
UTM
WATER
EMS
REQ #
TEMP
COND
µS/cm
pH
TURB
FLO SNS
BED MATERIAL
Dominant
Subdom
D95 (cm)
D (cm)
Morph
DISTURBANCE INDICATORS
MORPHOLOGY
PATTERN
ISLANDS
BARS
COUPLING
CONFINEMENT

HABITAT

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
31	15	ST	[illegible]	[illegible]

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C Site: [illegible]
- reach is defined channel & not [illegible]
- gradient within defined gully. Flow is trickle [illegible] mossy [illegible]
- barely enough to [illegible] into channel
- [illegible] on [illegible] [illegible] could [illegible]

C rip veg: [illegible] [illegible]
At C - Cl [illegible]

NET / TRAP SPECIFICATIONS

GEAR SPECIFICATIONS

ELECTROFISHER SPECIFICATIONS

12	EF 11	1	920	922	38	1	3	0	700	60	8	SR	[illegible]

COMMENTS

- all [illegible] plunge pool + minimal sampling = confirmation of fish presence only

HABITAT QUALITY

- moderate [illegible] rearing d/t lack of deep pools, but good flow [illegible].
- fair spawning in [illegible] gravel pockets
- unlikely overwintering d/t lack of pools, but good flow suggests likely overwintering elsewhere in system

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
OP1	1	ST	U	culvert outflow + RB on grade
OP1	2	ST	D	
[illegible]	3	ST	U	

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C Site = [illegible] Augier X-ing U/S
- sampled from 96 inventory - inferred [illegible]
- RB [illegible] right on culvert outflow
- CV not hanging + right creek?
- CV gradient not barrier (4%)
- [illegible]
[illegible] pools, but good flow

C [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]
1 rip veg = alder [illegible]
[illegible] creek - RB [illegible]!

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GEAR SPECIFICATIONS

ELECTROFISHER SPECIFICATIONS

11	EF 11	1	[illegible]	[illegible]	15	5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

COMMENTS

[illegible]

Rev. Apr. 1998 № 39559 CARD OF

FISH COLLECTION FORM

(local) FWII A1	☐ LAKE	☒ STREAM	☐ WETLAND
☒ Y ☐ N			
20000117		COIL	SR, MG
☐ RE-SAMPLE			

SITE / METHOD

SITE	NID MAP	NID	UTM			MTD		CONDITION	COMMENTS
13	93K 072		10	329175	6070...	EF	4	60	C

FISH SUMMARY

SITE	MTD	#	SPECIES				MIN LENGTH	MAX LENGTH		COMMENTS
13	EF	1	NFC			0				

SITE CARD

STREAM NAME (gaz)		(local)	FWII C				
WATERSHED CODE							
ILP MAP #		ILP		NID MAP #	93K 072	NID #	
REACH #	1 -	SITE #	14	FIELD UTM	10 ...	SITE LG	100 GE
ACCESS	V L / FT						
DATE	20000117	TIME	15:48	AGENCY	COIL	CREW	SR, MG
FISH FORM	Y☐ N☒						

CHANNEL	mthd								GRADIENT %	
CHANNEL WIDTH (m)										
WETTED WIDTH (m)										
RES. POOL DEPTH (m)										
W_B Dp (m)		STAGE L M H		No Vis. Ch. ☒ DW ☐	Dry/Int. ☐ Tribs. ☐					

WATER			
EMS		REQ #	
TEMP	°C	COND	µS/cm
pH		TURB	T M L C

COVER

Type	SWD	LWD	B	U	DP	OV	IV
AMT							
LOC							

Total

CROWN CLOSURE: 0 (0) · 1 (1-20%) · 2 (21-40%) · 3 (41-70%) · 4 (71-90%) · 5 (>90%)

LWD FNC	N F A	DIST	C E
INSTREAM VEG	N A M V		
LB SHP	U V S O	RB SHP	U V S O
TEXTURE	F G C B R A	TEXTURE	F G C B R A
RIP VEG	N G (S) C D M W	RIP VEG	N G (S) C D M W
STAGE	INIT SHR PS YF MF (NA)	STAGE	INIT SHR PS YF MF (NA)

MORPHOLOGY

FLD SNS								
BED MATERIAL	Dominant		Subdom					
D95 (cm)	D (cm)		Morph					
DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3	
	C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
PATTERN	TM	ME	IM	IR	SI	ST		
ISLANDS	N	O	I	F	S	AN		
BARS	N	SIDE	DIAG	MID	SPAN	BR		
COUPLING	DC	PC	CO					
CONFINEMENT	EN	CO	FC	OC	UN	N/A		

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		

SITE CARD

STREAM NAME (gaz)		(local)	FWIIS				
WATERSHED CODE	100-... 00B5R0						
ILP MAP #		ILP #		NID MAP #	93K 072	NID #	
REACH #	1 -	SITE #	15	FIELD UTM		SITE LG	100 GE
ACCESS	FT						
DATE	20000117	TIME	13:00	AGENCY	COIL	CREW	SR, MG
FISH FORM	Y☐ N☒						

CHANNEL	mthd								GRADIENT %	
CHANNEL WIDTH (m)										
WETTED WIDTH (m)										
RES. POOL DEPTH (m)										
W_B Dp (m)		STAGE L M H		No Vis. Ch. ☒ DW ☐	Dry/Int. ☐ Tribs. ☐					

WATER			
EMS		REQ #	
TEMP	°C	COND	µS/cm
pH		TURB	T M L C

COVER

Type	SWD	LWD	B	U	DP	OV	IV
AMT							
LOC							

Total

CROWN CLOSURE: 0 (0) · 1 (1-20%) · 2 (21-40%) · 3 (41-70%) · 4 (71-90%) · 5 (>90%)

LWD FNC	N F A	DIST	C E
INSTREAM VEG	N A M V		
LB SHP	U V S O	RB SHP	U V S O
TEXTURE	F G C B R A	TEXTURE	F G C B R A
RIP VEG	N G S C D M W	RIP VEG	N G S C D M W
STAGE	INIT SHR PS YF MF NA	STAGE	INIT SHR PS YF MF NA

MORPHOLOGY

FLD SNS								
BED MATERIAL	Dominant		Subdom					
D95 (cm)	D (cm)		Morph					
DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3	
	C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
PATTERN	TM	ME	IM	IR	SI	ST		
ISLANDS	N	O	I	F	S	AN		
BARS	N	SIDE	DIAG	MID	SPAN	BR		
COUPLING	DC	PC	CO					
CONFINEMENT	EN	CO	FC	OC	UN	N/A		

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

SITE CARD

STREAM NAME (gaz)		(local)	FWI4				
WATERSHED CODE	100-...						
ILP MAP #		ILP #		NID MAP #	93K 072	NID #	
REACH #	1 -	SITE #	16	FIELD UTM	mouth	SITE LG	100 GC
ACCESS	FT						
DATE	20000117	TIME	12:00	AGENCY	COIL	CREW	SR, MG
FISH FORM	Y☐ N☒						

CHANNEL	mthd								GRADIENT %	
CHANNEL WIDTH (m)										
WETTED WIDTH (m)										
RES. POOL DEPTH (m)										
W_B Dp (m)		STAGE L M H		No Vis. Ch. ☒ DW ☐	Dry/Int. ☐ Tribs. ☐					

WATER			
EMS		REQ #	
TEMP	°C	COND	µS/cm
pH		TURB	T M L C

COVER

Type	SWD	LWD	B	U	DP	OV	IV
AMT							
LOC							

Total

CROWN CLOSURE: 0 (0) · 1 (1-20%) · 2 (21-40%) · 3 (41-70%) · 4 (71-90%) · 5 (>90%)

LWD FNC	N F A	DIST	C E
INSTREAM VEG	N A M V		
LB SHP	U V S O	RB SHP	U V S O
TEXTURE	F G C B R A	TEXTURE	F G C B R A
RIP VEG	N G S C D M W	RIP VEG	N G S C D M W
STAGE	INIT SHR PS YF MF NA	STAGE	INIT SHR PS YF MF NA

MORPHOLOGY

FLD SNS								
BED MATERIAL	Dominant		Subdom					
D95 (cm)	D (cm)		Morph					
DISTURBANCE INDICATORS	O1	B1	B2	B3	D1	D2	D3	
	C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
PATTERN	TM	ME	IM	IR	SI	ST		
ISLANDS	N	O	I	F	S	AN		
BARS	N	SIDE	DIAG	MID	SPAN	BR		
COUPLING	DC	PC	CO					
CONFINEMENT	EN	CO	FC	OC	UN	N/A		

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

HABITAT QUALITY

FSZ ☐

PHOTO DOCUMENTATION

ROLL		FOCAL	DIR	COMMENTS

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C site: from "mouth"
- No defined channel present at "mouth"
- No flowing, no continuous channel bed, no puddles, etc. just moist ground. No fish habitat or connectivity to any fish-bearing [illegible]

C NCD

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HABITAT

NONE

FSZ ☐

PHOTO DOCUMENTATION

ROLL		FOCAL	DIR	COMMENTS
				Gravel pit?

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C site = from "mouth"
No sign of drainage found at mapped location. At mapped location at Fleming road, "creek" is mapped at crest of hill. Some possibilities in gullies or old gravel pit, but all dry with no channel or H₂O

C NOT EVEN NCD

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HABITAT QUALITY

NONE

FSZ ☐

PHOTO DOCUMENTATION

ROLL		FOCAL	DIR	COMMENTS
31	16	ST	U	(SR)

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C site: within ~100m d/s from road "creek" lacks continuous channel bed. at road and d/s, channel bed appears, occasionally ponded water, but then disappears into devil's club gully floor. No fish habitat or access possible to any fish.

C Sides to road are alluded to forest floor - no side channels in channelbed section.

NCD

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GEAR SPECIFICATIONS

ELECTROFISHER SPECIFICATIONS

1	13	[illegible]	1	[illegible]	[illegible]	[illegible]	1	0.3	0	700	80	6	[illegible]	[illegible]

COMMENTS

1 only 1 place to EF gully, no pooled [illegible]

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№ 39650

CARD OF

SITE CARD

STREAM NAME: | LOCAL: FU4
WATERSHED CODE: [illegible]
ILP MAP: | ILP: | NID MAP: 93K.072 | NID:
REACH: 2 | SITE: 17 | FIELD UTM: 10 1329762 6072741 GPS | SITE L: 100 | ACCESS: VT
DATE: 20040917 | TIME: 1240 | AGENCY: C016 | CREW: SS MG | FISH FORM: Y N

CHANNEL | mthd | GRADIENT %

CHANNEL WIDTH (m): MS 1.2 1.1 1.0 0.4 0.8 1.3 | AL
WETTED WIDTH (m): 0.9 1.0 1.0 0.4 0.7 1.3 | 5 4
RES. POOL DEPTH (m): .04 .06 .03 .05 | 4 6
W_b Dp (m): | STAGE: L M H | No Vis. Ch. | Dry/Int. | DW | Tribs.

EMS: | REC #:
TEMP: 4.5 °C | COND: 20 µS/cm
pH: | TURB: T M L C
FLO SNS: N
BED MATERIAL: Dominant: F | Subdom: G
D95 (cm): 1 | D (cm): .5 | Morph: RP

COVER | Total: T
Type: SWD LWD B U DP OV IV
AMT: T T N N T T T
LOC:
LWD FNC: N F A | DIST: C E | INSTREAM VEG: N A M V
LB SHP: U V S O | RB SHP: U V S O
TEXTURE: F G C B R A | TEXTURE: F G C B R A
RIP VEG: N G S C D M W | RIP VEG: N G S C D M W
STAGE: INIT SHR PS YF MF NA | STAGE: INIT SHR PS YF MF NA
CROWN CLOSURE: 0 1 2 3 4 5

DISTURBANCE INDICATORS: O1 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN: TM ME IM IR SI ST
ISLANDS: N O I F S AN
BARS: N SIDE DIAG MID SPAN BR
COUPLING: DC PC CO
CONFINEMENT: EN CO FC OC UN N/A

C | NID MAP # | NID # | TYPE | HT/LG (m) | mthd | PHOTO | COMMENTS | UTM
R___ F___

WATER / MORPHOLOGY / COVER

FISH COLLECTION FORM

LOCAL: FU4 | LAKE | STREAM | WETLAND
WATERSHED CODE: [illegible]
REACH: 2 | FISH FORM ATTACHED: Y N
DATE: 20040917 | AGENCY: C016 | CREW: SS MG | RE-SAMPLE

SITE / METHOD

SITE	NID MAP		SITE UTM	MTD NO	STREAM CONDITION	COMMENTS
17	93K.072		10 1329762 6072741 GPS	C1	HG SU	

FISH SUMMARY

SITE	MTD							COMMENTS
17	EF 1		NFC		0			

SITE CARD

STREAM NAME: | LOCAL: FU5
WATERSHED CODE:
ILP MAP: | ILP: | NID MAP: 93K.072 | NID:
REACH: 1 | SITE: 18 | FIELD UTM: 10 [illegible] | SITE L: | ACCESS:
DATE: 20040917 | TIME: 1120 | AGENCY: C016 | CREW: SS MG | FISH FORM: Y N

CHANNEL | mthd | GRADIENT %
CHANNEL WIDTH (m): [illegible] | AL
WETTED WIDTH (m): [illegible] | 19 22
RES. POOL DEPTH (m): [illegible] | 21 16
W_b Dp (m): | STAGE: L M H | No Vis. Ch. | Dry/Int. | DW | Tribs.

EMS: | REC #:
TEMP: 4.0 °C | COND: 50 µS/cm
pH: | TURB: T M L C
FLO SNS: N
BED MATERIAL: Dominant: C | Subdom: G
D95 (cm): 30 | D (cm): 3 | Morph: SP

COVER | Total: T
Type: SWD LWD B U DP OV IV
AMT: T T C N D T N
LOC:
LWD FNC: N F A | DIST: C E | INSTREAM VEG: N A M V
LB SHP: U V S O | RB SHP: U V S O
TEXTURE: F G C B R A | TEXTURE: F G C B R A
RIP VEG: N G S C D M W | RIP VEG: N G S C D M W
STAGE: INIT SHR PS YF MF NA | STAGE: INIT SHR PS YF MF NA
CROWN CLOSURE: 0 1 2 3 4 5

DISTURBANCE INDICATORS: O1 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN: TM ME IM IR SI ST
ISLANDS: N O I F S AN
BARS: N SIDE DIAG MID SPAN BR
COUPLING: DC PC CO
CONFINEMENT: EN CO FC OC UN N/A

C | NID MAP # | NID # | TYPE | HT/LG (m) | mthd | PHOTO | COMMENTS | UTM
C | [illegible] | R F | 60 [illegible]

WATER / MORPHOLOGY / COVER

FISH COLLECTION FORM

LOCAL: FU5 | LAKE | STREAM | WETLAND
WATERSHED CODE:
REACH: 1 | FISH FORM ATTACHED: Y N
DATE: 20040917 | AGENCY: C016 | CREW: SS MG | RE-SAMPLE

SITE / METHOD

SITE	NID MAP		SITE UTM	MTD NO	STREAM CONDITION	COMMENTS
18	93K.072		10 [illegible]	C1 1	HG SU	C

FISH SUMMARY

SITE	MTD							COMMENTS
18	EF 1		NFC		0			

GEAR SPECIFICATIONS

ELECTROFISHER SPECIFICATIONS

18	[illegible]		[illegible]	[illegible]	[illegible]	60	0.6	0	700	SC	6	SP	[illegible]

COMMENTS

HABITAT QUALITY

Poor [illegible] [illegible] for [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] d.W. [illegible] [illegible] [illegible] No spawning, [illegible] present.

FSZ ☐

PHOTO DOCUMENTATION

ROLL	#	FOCUS	DIR	COMMENTS
31	10	ST	[illegible]	[illegible]
31	11	ST	[illegible]	

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C		C	
	Site: [illegible] mouth		NFC SG.
1	pools on shallow cascade pools within steep gradient		
	reach is steep [illegible], [illegible] [illegible],		([illegible] [illegible] [illegible] complete [illegible] [illegible])
	[illegible] in [illegible] small steps		
	and is too steep [illegible] [illegible] [illegible],		[illegible] [illegible] @ [illegible] [illegible]
	Impassable for [illegible] [illegible] [illegible]		to [illegible] [illegible] [illegible]

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GEAR SPECIFICATIONS

ELECTROFISHER SPECIFICATIONS

17	EF 1	1	1240	1250	715	100	1.0	0	700	50	6	SP	[illegible]

COMMENTS

[illegible] shallow [illegible] to steep

HABITAT QUALITY

V. poor - v shallow [illegible], [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]. [illegible] inflow a result of ditch runoff. No spawning/[illegible] habitat and no connectivity, [illegible] FUH [illegible] [illegible]/[illegible] dispersal [illegible] [illegible] of mouth. This creek is only marginally a [illegible] stream.

FSZ ☐

PHOTO DOCUMENTATION

ROLL	#	FOCUS	DIR	COMMENTS
31	14	ST	U	(SR)

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C		C	
	Site: [illegible] 60m d/s from road		
	= confirmation of [illegible] [illegible]		NFC - SG
	above NFC reach!		
	likely only watered d/t [illegible] [illegible]		

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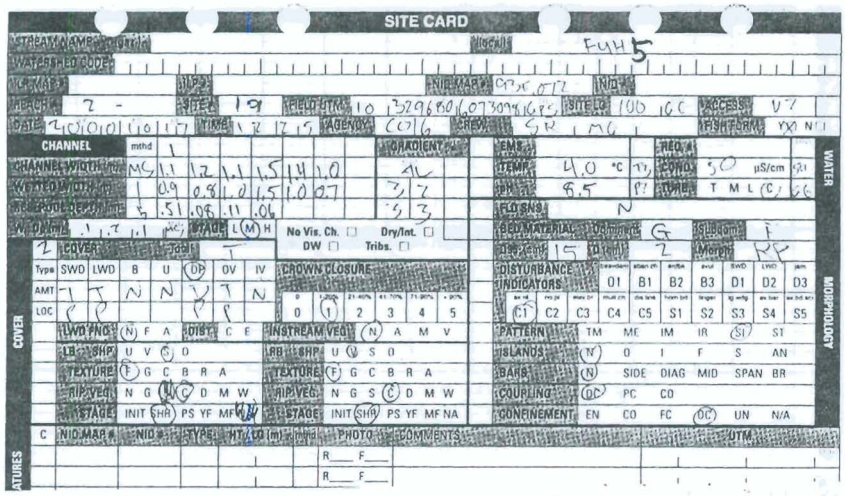

SITE CARD
FUH5
CHANNEL
WATER
MORPHOLOGY
COVER
FEATURES
FISH COLLECTION FORM
LAKE
STREAM
WETLAND
RE-SAMPLE
SITE / METHOD
FISH SUMMARY
SITE CARD
FUH5
CHANNEL
WATER
MORPHOLOGY
COVER
FEATURES
RE-SAMPLE
SITE / METHOD
FISH SUMMARY

GEAR SPECIFICATIONS

ELECTROFISHER SPECIFICATIONS

COMMENTS

HABITAT QUALITY

FSZ (T)

PHOTO DOCUMENTATION

WILDLIFE

COMMENTS

Rev. Apr. 1998

GEAR SPECIFICATIONS

ELECTROFISHER SPECIFICATIONS

COMMENTS

HABITAT QUALITY

FSZ (T)

PHOTO DOCUMENTATION

WILDLIFE

COMMENTS

Rev. Apr. 1998

FISH COLLECTION FORM

Fuli ☐ LAKE ☒ STREAM ☐ WETLAND

1 8 0 - 5 0 0 9 - 6 0 0 - 9 3 4 0 - 6 4 5 0 0

☒ Y ☐ N

OF 7000 | 8 -

2 0 0 1 1 8 1 7 | ☐ RE-SAMPLE | C O I G | MJ MJ

SITE / METHOD

21						EF1	4	90	L

FISH SUMMARY

										COMMENTS
21	EF1	1	LKW	J		3	64	87	R	

SITE CARD

STREAM NAME (gaz.) | (local) Fuli

WATERSHED CODE

ILP MAP # | ILP # | NID MAP # | NID #

REACH # 8 - | SITE # 21 | FIELD UTM 10 318745 | SITE LG 500 GE | ACCESS

DATE | TIME 1605 | AGENCY COIG | CREW | FISH FORM Y☒ N

CHANNEL	mthd							GRADIENT %	
CHANNEL WIDTH (m)				1.8	1.9	1.6	2.1		
WETTED WIDTH (m)				0.9		0.9	1.2		
RES. POOL DEPTH (m)								5.5	

W_b Dp (m) | STAGE L M H | No Vis. Ch. ☐ Dry/Int. ☐ DW ☐ Tribs. ☐

EMS | REQ. # | TEMP °C | COND μS/cm | pH | TURB. T M L (C) | FLD SNS None | BED MATERIAL Dominant F | Subdom. C | D95 (cm) 20 | D (cm) 0.1 | Morph RP

COVER Total T

Type	SWD	LWD	B	U	DP	OV	IV
AMT	T	D	S	T	T	S	
LOC							

CROWN CLOSURE: 0 (0) · 1-20% (1) · 21-40% (2) · 41-70% (3) · 71-90% (4) · >90% (5) — circled: 2

LWD FNC N F (A) | DIST C E | INSTREAM VEG (N) A M V

LB SHP U V (S) O | RB SHP U V (S) O

TEXTURE F G (C) B R A | TEXTURE F G (C) B R A

RIP VEG N G (S) C D M W | RIP VEG N G (S) C D M W

STAGE INIT SHR PS YF MF NA | STAGE INIT SHR PS YF MF NA

DISTURBANCE INDICATORS: O1 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

PATTERN TM ME IM IR (SI) ST

ISLANDS (N) O I F S AN

BARS (N) SIDE DIAG MID SPAN BR

COUPLING DC PC (CO)

CONFINEMENT EN (CO) FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		

SITE CARD

STREAM NAME (gaz.) | (local) BASS

WATERSHED CODE

ILP MAP # | ILP # | NID MAP # 93K.047 | NID #

REACH # 1 - | SITE # 22 | FIELD UTM 10 345596 | SITE LG 100 GE | ACCESS T

DATE | TIME 1215 | AGENCY COIG | CREW SP MG | FISH FORM Y☐ N☒

CHANNEL	mthd							GRADIENT %	
CHANNEL WIDTH (m)		1.4	1.7	0.8	1.9	1.3	1.4	AL	
WETTED WIDTH (m)								1	3
RES. POOL DEPTH (m)								2	4

W_b Dp (m) | STAGE L (M) H | No Vis. Ch. ☐ (Dry/Int.) ☒ DW ☐ Tribs. ☐

EMS | REQ. # | TEMP °C | COND μS/cm | pH | TURB. T M L C | FLD SNS N | BED MATERIAL Dominant F | Subdom. G | D95 (cm) 1 | D (cm) .5 | Morph RP

COVER Total N

Type	SWD	LWD	B	U	DP	OV	IV
AMT							
LOC							

CROWN CLOSURE: 0 (0) · 1-20% (1) · 21-40% (2) · 41-70% (3) · 71-90% (4) · >90% (5) — circled: 2

LWD FNC N (F) A | DIST C (E) | INSTREAM VEG N A (M) V

LB SHP U (V) S O | RB SHP U (V) S O

TEXTURE (F) G C B R A | TEXTURE F G C B R A

RIP VEG N G S C (D) M W | RIP VEG N G S C (D) M W

STAGE INIT SHR PS YF (MF) NA | STAGE INIT SHR PS YF (MF) NA

DISTURBANCE INDICATORS: O1 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

PATTERN TM ME IM IR (SI) ST

ISLANDS (N) O I F S AN

BARS (N) SIDE DIAG MID SPAN BR

COUPLING (DC) PC CO

CONFINEMENT EN CO FC (OC) UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

WATERSHED CODE

ILP MAP # 93L043 | ILP # 43508 | NID MAP # 93K043 | NID #

REACH # 2 - | SITE # 23 | FIELD UTM 10 342696 6032872 GPS | SITE LG 500 GE | ACCESS

DATE | TIME | AGENCY COIG | CREW | FISH FORM Y☒ N

CHANNEL	mthd							GRADIENT %	
CHANNEL WIDTH (m)						0.6			
WETTED WIDTH (m)									
RES. POOL DEPTH (m)									

W_b Dp (m) 0.1 0.3 | STAGE (L) M H | No Vis. Ch. ☐ Dry/Int. ☐ DW ☐ Tribs. ☐

EMS | REQ. # | TEMP °C | COND μS/cm | pH 7.9 | TURB. T M L (C) | FLD SNS None | BED MATERIAL Dominant F | Subdom. | D95 (cm) | D (cm) | Morph RP

COVER Total T

Type	SWD	LWD	B	U	DP	OV	IV
AMT	T	T		D	T	S	
LOC							

CROWN CLOSURE: 0 (0) · 1-20% (1) · 21-40% (2) · 41-70% (3) · 71-90% (4) · >90% (5)

LWD FNC N F A | DIST C E | INSTREAM VEG N A (M) V

LB SHP (U) V S O | RB SHP (U) V S O

TEXTURE F G C B R A | TEXTURE F G C B R A

RIP VEG N G S C D M W | RIP VEG N G S C D M W

STAGE INIT SHR PS YF MF NA | STAGE INIT SHR PS YF MF NA

DISTURBANCE INDICATORS: O1 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

PATTERN TM ME IM (IR) SI ST

ISLANDS (N) O I F S AN

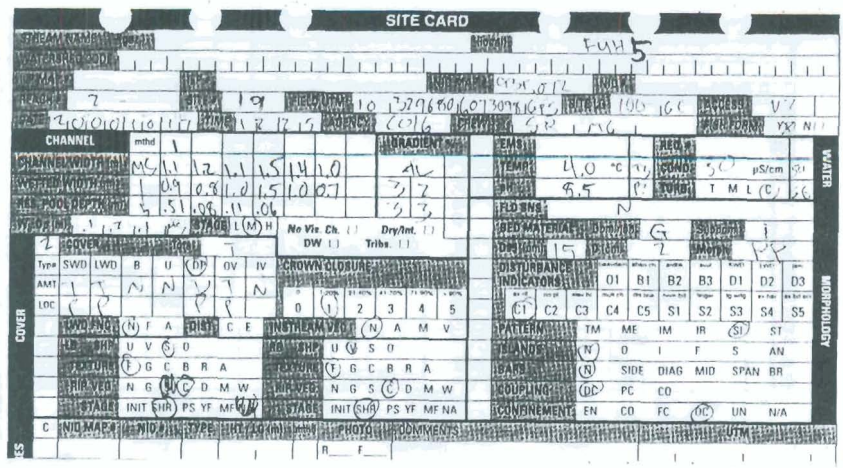
BARS (N) SIDE DIAG MID SPAN BR

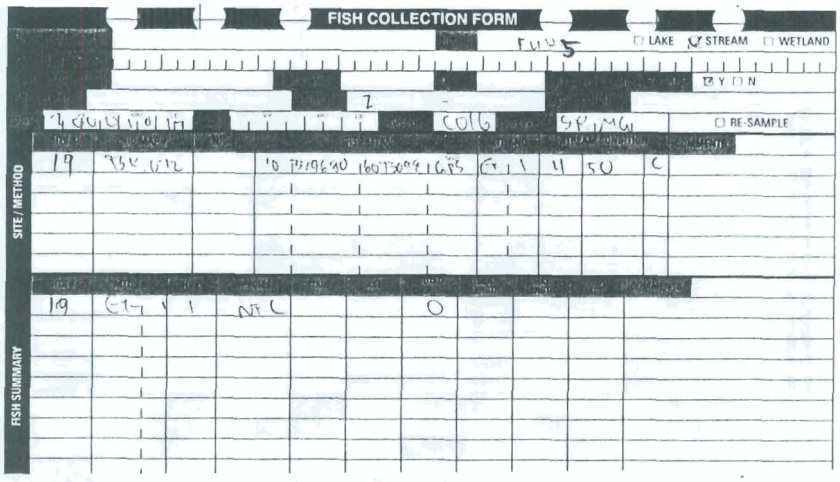
COUPLING DC PC CO

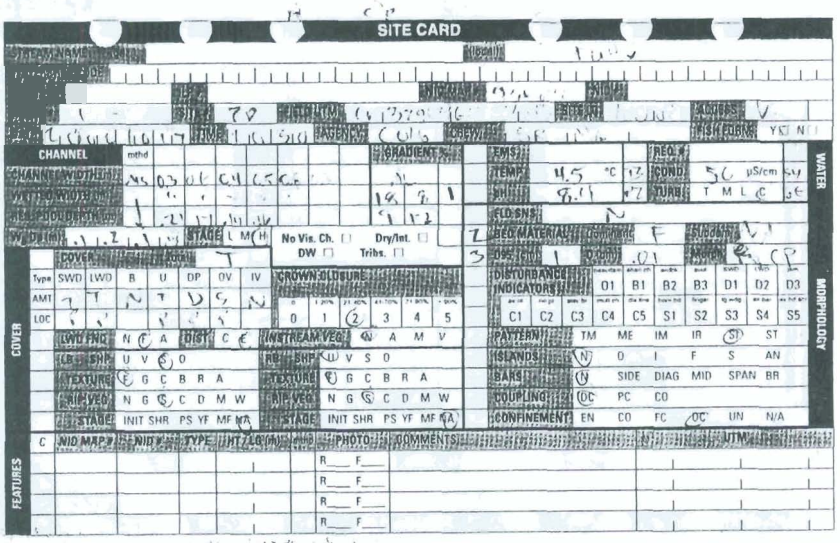
CONFINEMENT EN CO FC OC UN N/A

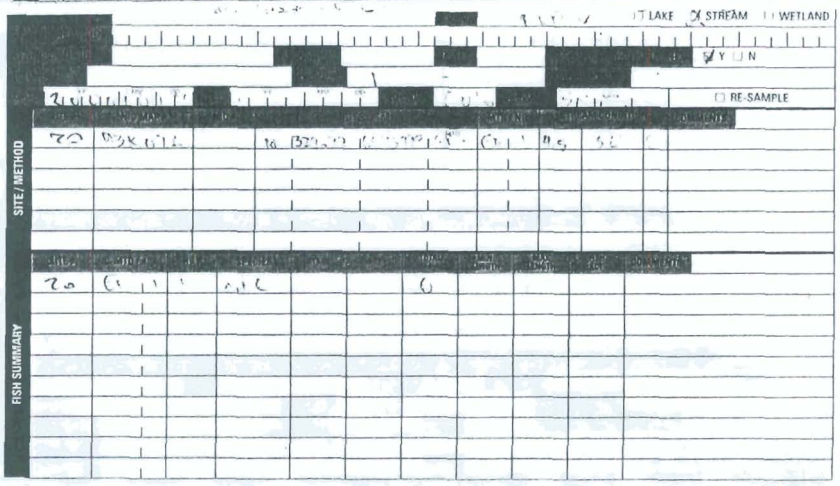
FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		


SITE CARD
CHANNEL
COVER
WATER
MORPHOLOGY
FEATURES


FISH COLLECTION FORM
LAKE
STREAM
WETLAND
RE-SAMPLE
SITE / METHOD
FISH SUMMARY


SITE CARD
CHANNEL
COVER
WATER
MORPHOLOGY
FEATURES


LAKE
STREAM
WETLAND
RE-SAMPLE
SITE / METHOD
FISH SUMMARY

[redacted] Unnamed (local)

WATERSHED CODE

ILP MAP # 93K.013 | ILP # 43508 | NID MAP # 93K.013 | NID #

REACH # 1 | SITE # 24 | FIELD UTM 10 343127 6032688 GPS | SITE LG 200 GE | ACCESS V4

DATE 2008/10/17 | TIME 13:55 | AGENCY C016 | CREW MJ MJ | FISH FORM Y N

CHANNEL	mthd							GRADIENT %
CHANNEL WIDTH (m)	1.2	0.9	1.1	1.2	1.2	1.	1.4	3 / 2
WETTED WIDTH (m)								
RES. POOL DEPTH (m)								

W. Dp (m) 0.2 0.2 0.2 | STAGE L M H | No Vis. Ch. ☐ Dry/Int. ☒ DW ☐ Tribs. ☐

COVER total: N

Type	SWD	LWD	B	U	DP	OV	IV
AMT							
LOC							

CROWN CLOSURE: 0 (0) · 1 (1-20%) · 2 (21-40%) · **3** (41-70%) · 4 (71-90%) · 5 (> 90%)

LWD FNC N F A | DIST C E | INSTREAM VEG N A M V

LB SHP U V S O | RB SHP U V S O

TEXTURE F G C B R A | TEXTURE F G C B R A

RIP VEG N G S C D M W | RIP VEG N G S C D M W

STAGE INIT SHR PS YF MF NA | STAGE INIT SHR PS YF MF NA

WATER: EMS | TEMP — °C | pH — | REQ # | COND µS/cm | TURB T M L C

FLD SNS None

BED MATERIAL Dominant F | Subdom NS

D95 (cm) 0.01 | D (cm) .001 | Morph RP

DISTURBANCE INDICATORS: O1 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

PATTERN TM ME IM IR SI ST

ISLANDS N O I F S AN

BARS N SIDE DIAG MID SPAN BR

COUPLING DC PC CO

CONFINEMENT EN CO FC OC UN N/A

MORPHOLOGY

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R F		

FISH COLLECTION FORM

NAME | (local) | ☐ LAKE ☒ STREAM ☐ WETLAND

WATERSHED CODE

ILP MAP 93K.013 | ILP # 43508 | FISH PERMIT / REQUIRED ☒ Y ☐ N

REACH # | SITE # | ESCAPEMENT

DATE 2008/10/17 | AGENCY C016 | CREW MJ | ☐ RE-SAMPLE

SITE / METHOD

SITE #	NID MAP	NID #						STRM NO	STREAM CONDITION			COMMENTS
23									5	100		

FISH SUMMARY

SITE #												COMMENTS
23												

SITE CARD

STREAM NAME (gaz) Unnamed (local)

WATERSHED CODE

ILP MAP # 93K.013 | ILP # 43500 | NID MAP # 93K.013 | NID #

REACH # 1 | SITE # 25 | FIELD UTM 10 343078 6032558 GPS | SITE LG 200 GE | ACCESS V4

DATE 2008/10/16 | TIME 14:23 | AGENCY | CREW MJ MJ | FISH FORM Y N

CHANNEL	mthd							GRADIENT %
CHANNEL WIDTH (m)								
WETTED WIDTH (m)								
RES. POOL DEPTH (m)								

W. Dp (m) | STAGE L M H | No Vis. Ch. ☒ Dry/Int. ☐ DW ☐ Tribs. ☐

COVER total

Type	SWD	LWD	B	U	DP	OV	IV
AMT							
LOC							

CROWN CLOSURE: 0 (0) · 1 (1-20%) · 2 (21-40%) · 3 (41-70%) · 4 (71-90%) · 5 (> 90%)

LWD FNC N F A | DIST C E | INSTREAM VEG N A M V

LB SHP U V S O | RB SHP U V S O

TEXTURE F G C B R A | TEXTURE F G C B R A

RIP VEG N G S C D M W | RIP VEG N G S C D M W

STAGE INIT SHR PS YF MF NA | STAGE INIT SHR PS YF MF NA

WATER: EMS | TEMP °C | pH | REQ # | COND µS/cm | TURB T M L C

FLD SNS

BED MATERIAL Dominant | Subdom

D95 (cm) | D (cm) | Morph

DISTURBANCE INDICATORS: O1 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

PATTERN TM ME IM IR SI ST

ISLANDS N O I F S AN

BARS N SIDE DIAG MID SPAN BR

COUPLING DC PC CO

CONFINEMENT EN CO FC OC UN N/A

MORPHOLOGY

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

Unnamed (local) 1st TRIB, TK113

WATERSHED CODE

ILP MAP # 93K.013 | ILP # 34554 | NID MAP # 93K.013 | NID #

REACH # 1 | SITE # 26 | FIELD UTM 10 344630 6023250 GPS | SITE LG 200 GE | ACCESS V4

DATE 2008/10/16 | TIME 11:00 | AGENCY C016 | CREW MJ MJ | FISH FORM Y N

CHANNEL	mthd							GRADIENT %
CHANNEL WIDTH (m)								AL
WETTED WIDTH (m)								17
RES. POOL DEPTH (m)								

W. Dp (m) | STAGE L M H | No Vis. Ch. ☒ Dry/Int. ☐ DW ☐ Tribs. ☐

COVER total

Type	SWD	LWD	B	U	DP	OV	IV
AMT							
LOC							

CROWN CLOSURE: 0 (0) · 1 (1-20%) · 2 (21-40%) · 3 (41-70%) · 4 (71-90%) · 5 (> 90%)

LWD FNC N F A | DIST C E | INSTREAM VEG N A M V

LB SHP U V S O | RB SHP U V S O

TEXTURE F G C B R A | TEXTURE F G C B R A

RIP VEG N G S C D M W | RIP VEG N G S C D M W

STAGE INIT SHR PS YF MF NA | STAGE INIT SHR PS YF MF NA

WATER: EMS | TEMP °C | pH | REQ # | COND µS/cm | TURB T M L C

FLD SNS

BED MATERIAL Dominant | Subdom

D95 (cm) | D (cm) | Morph

DISTURBANCE INDICATORS: O1 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

PATTERN TM ME IM IR SI ST

ISLANDS N O I F S AN

BARS N SIDE DIAG MID SPAN BR

COUPLING DC PC CO

CONFINEMENT EN CO FC OC UN N/A

MORPHOLOGY

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

HABITAT QUALITY

FSZ ☐

PHOTO DOCUMENTATION

				COMMENTS
OP5	13	ST	U	1115

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C site @ [illegible]

Forested [illegible] with [illegible] drainage

HABITAT QUALITY

No [illegible] of drainage found @ mapped location or 100m [illegible]

FSZ ☐

PHOTO DOCUMENTATION

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C Site @ [illegible]

Slight depression [illegible]

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GEAR SPECIFICATIONS

ELECTROFISHER SPECIFICATIONS

23	[illegible]	13	[illegible]	[illegible]	500	0.4	0	300	80	6	[illegible]	[illegible]

COMMENTS

[illegible]

HABITAT QUALITY

NFH - v. seasonal flow likely for 2-3 weeks @ meltwater runoff. channel looses creek characteristics & freq vegetation/[illegible] and [illegible] [illegible] [illegible] [illegible]

FSZ ☐

PHOTO DOCUMENTATION

				COMMENTS
OPS	17	ST	BD	1406
OPS	18	ST	U	1407

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C site [illegible] w/s

[illegible]

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SITE CARD

STREAM NAME	Unnamed		
WATERSHED CODE	460-927700-23300-36300		
NID MAP	93K.031		
REACH #	1 -	SITE #	27
SITE G	L/S, EC	ACCESS	1.1
DATE	2000 07 14	TIME	10:10
AGENCY	C06	CREW	SR, MJ
FISH FORM	Y N		

CHANNEL	mthd							GRADIENT %
CHANNEL WIDTH (m)	MS	1.6	1.8	1.4	1.8	1.9	1.7	11
WETTED WIDTH (m)	↓	"	"	"	"	"	"	7 9
RES. POOL DEPTH (m)	↓	.7	.15	.18	.74	.21	.16	9 8
W. D. (m)	.7	.2	.3	MS	STAGE L M (H)			

No Vis. Ch. ☐ Dry/Int. ☐ DW ☐ Tribs. ☐

WATER	
EMS	
TEMP	9 °C
pH	7.4
RED #	
COND.	- µS/cm
TURB.	T M (L) C
FLD SNS	

COVER

Total: M

Type	SWD	LWD	B	U	DP	OV	IV
AMT	T	S	S	T	D	T	N
LOC							

CROWN CLOSURE: 0 (0) 1 (1-20%) 2 (21-40%) (3) (41-70%) 4 (71-90%) 5 (>90%)

LWD FNC: N F (A) DIST: C (E) INSTREAM VEG: (N) A M V
LB SHP: U (V) S O RB SHP: U V S O
TEXTURE: (F) G (C) B R A TEXTURE: (F) G (C) B R A
RIP VEG: N G S (C) D M W RIP VEG: N G S (C) D M W
STAGE: INIT SHR PS YF (MF) NA STAGE: INIT SHR PS YF (MF) NA

MORPHOLOGY

BED MATERIAL: Dominant C Subdom G
D95 (cm) 25 D (cm) 6 Morph CP

DISTURBANCE INDICATORS: O1 B1 B2 B3 D1 (D2) D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN: TM ME IM IR SI (ST)
ISLANDS: (N) O I F S AN
BARS: (N) SIDE DIAG MID SPAN BR
COUPLING: DC PC (CO)
CONFINEMENT: EN (CO) FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
	93K.031		F	7		R01 F12	[illegible]	
			C	13		R__ F__	[illegible] - 19%	

FISH COLLECTION FORM

☐ LAKE ☒ STREAM ☐ WETLAND

WATERSHED CODE: 460-927700-23300-36300
☒ Y ☐ N
1 -
DATE: 2000 07 14 AGENCY: C06 CREW: SR, MJ ☐ RE-SAMPLE

SITE / METHOD

27	93K.031			EF 1	

FISH SUMMARY

27	EF	1	1	NFC			0		

SITE CARD

STREAM NAME	Unnamed		
WATERSHED CODE	460-927700-23300-36300		
NID MAP	93K.031		
REACH #	1 -	SITE #	28
ACCESS			
DATE	2000 07 14	TIME	13:35
AGENCY		CREW	
FISH FORM	Y☐ N☐		

CHANNEL	mthd							GRADIENT %
CHANNEL WIDTH (m)	MS	2.1	1.8	1.4	1.9	1.7	1.7	12
WETTED WIDTH (m)	↓	"	"	"	"	"	"	
RES. POOL DEPTH (m)		.20	.21	.26	.11	.16	.26	
W. D. (m)	.3	.3	.2	MS	STAGE L M (H)			

No Vis. Ch. ☐ Dry/Int. ☐ DW ☐ Tribs. ☐

WATER	
EMS	
TEMP	9 °C
pH	7.4
RED #	
COND.	- µS/cm
TURB.	T M (L) C
FLD SNS	

COVER

Total: A

Type	SWD	LWD	B	U	DP	OV	IV
AMT	T	S	T	N	D	N	N
LOC							

CROWN CLOSURE: 0 (0) 1 (1-20%) 2 (21-40%) (3) (41-70%) 4 (71-90%) 5 (>90%)

LWD FNC: N F (A) DIST: C (E) INSTREAM VEG: (N) A M V
LB SHP: U (V) S O RB SHP: U V S O
TEXTURE: (F) G (C) (B) R A TEXTURE: (F) G (C) B R A
RIP VEG: N G S (C) D M W RIP VEG: N G S (C) D M W
STAGE: INIT SHR PS YF (MF) NA STAGE: INIT SHR PS YF MF NA

MORPHOLOGY

BED MATERIAL: Dominant C Subdom G/B
D95 (cm) 40 D (cm) 10 Morph CP

DISTURBANCE INDICATORS: O1 B1 B2 B3 D1 (D2) D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN: TM ME IM IR (SI) ST
ISLANDS: (N) O I F S AN
BARS: (N) SIDE DIAG MID SPAN BR
COUPLING: DC PC (CO)
CONFINEMENT: EN (CO) FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R__ F__		
						R__ F__		
						R__ F__		
						R__ F__		

FISH COLLECTION FORM

☐ LAKE ☒ STREAM ☐ WETLAND

WATERSHED CODE: 460-927700-23300-36300
☒ Y ☐ N
1 -
DATE: 2000 07 14 AGENCY: C06 CREW: SR, MJ ☐ RE-SAMPLE

SITE / METHOD

28	93K.031		EF 1	9	L

FISH SUMMARY

28	EF	1	1	NFC			0		

GEAR SPECIFICATIONS

ELECTROFISHER SPECIFICATIONS

28	GF	1	1	10:35	10:50	304	110	1.6	0	500	80	6	SK	1203

COMMENTS

- No fish present above falls

Rev. Apr. 1998 — № 012994 — CARD of

HABITAT QUALITY

- poor spawning - lacks suitable gravels
- fair overwintering in few deep pools

FSZ ☐

PHOTO DOCUMENTATION

OP2	13	SF	U	- Cont-up

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C Site: above falls
- better hab in more frequent boulder/LWD, pool cover, but isolated
- cont./entrenched high flow through steep [illegible] gully

C NFC (SG)

Rev. Apr. 1998

GEAR SPECIFICATIONS

ELECTROFISHER SPECIFICATIONS

27	EF	1	1	10:10	10:25	231	115	1.6	0	500	80	6	SK	DB

COMMENTS

NFC d/t low abundance in Main, but habitat is available and accessible

HABITAT QUALITY

- Mod. rearing for RB in dispersed pools, but high flows [illegible] avail. instream cover
- pools not deep enough for overwintering
- steeper no suitable spawning gravels

FSZ ☐

PHOTO DOCUMENTATION

ROLL	#	DEG	DIR	COMMENTS
OP2	10	5T	D	
OP2	11	5T	U	
OP2	12	5T	V	Photo of [illegible]

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C Site from marine to 3+[illegible]
- Presampled from 1999 inventory
- high cascade flow through steep gully
- sht. LWD from valley wall [illegible], some providing

C good cover for RB
- falls in [illegible] [illegible] [illegible] - NFC above [illegible] 1999

Rev. Apr. 1998

SITE CARD

Field	Value
STREAM NAME	
LOCAL	LMPW4B
WATERSHED CODE	
REACH	1 -
SITE	29
NID MAP	93K 0??
SITE ID	205, HC
ACCESS	V4
DATE	20000731
TIME	1,0,1,5
AGENCY	C016
CREW	MJ SR
FISH FORM	Y N

CHANNEL	mthd						GRADIENT %
CHANNEL WIDTH (m)	MS	1.6	1.1	0.7	1.8	1.3	1.2	AL
WETTED WIDTH (m)	MS	0.8	2.7	0.6	1.0	1.5	0.4	3 4
RES. POOL DEPTH (m)	MS	0.05	0.04	0.09	0.14	0.14	0.03	1 5
W.D	2.40, 5.0, 4	STAGE	M				

No Vis. Ch. ☐ Dry/Int. ☐ DW ☐ Tribs. ☐

WATER	
EMS	
TEMP	10 °C T3
pH	8.0 P2
RED. ?	
COND.	140 µS/cm T4
TURB.	T M L (C) G6
FLD SNS	None

COVER — Total: T

Type	SWD	LWD	B	U	DP	OV	IV
AMT	S	T	T	S	T	S	D
LOC	P	P	P	P	P	P	P

CROWN CLOSURE: 0 | 1-20% 1 | 21-40% 2 | 41-70% (3) | 71-90% 4 | >90% 5

LWD FNC: N (F) A — DIST: C (E) — INSTREAM VEG: N A (M) V

LB SHP: (U) V S O — RB SHP: (U) V S O

TEXTURE: (F) (G) C B R A — TEXTURE: (F) G (C) B R A

RIP VEG: N G S (C) D M W — RIP VEG: N G S (C) D M W

STAGE: INIT SHR PS YF (MF) NA — STAGE: INIT SHR PS YF (MF) NA

MORPHOLOGY: BED MATERIAL Dominant F, Subdom C; D95 (cm) 8; D (cm) 1; Morph RP

DISTURBANCE INDICATORS: O1 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

PATTERN: TM ME IM (IR) SI ST

ISLANDS: (N) O I F S AN

BARS: (N) SIDE DIAG MID SPAN BR

COUPLING: (DC) PC CO

CONFINEMENT: EN CO FC OC (UN) N/A

FEATURES: C | NID MAP # | NID # | TYPE | HT/LG (m) | PHOTO R___ F___ | COMMENTS | UTM

(reverse of card, printed upside down) No 020199 — Rev Apr 1998

COMMENTS: very high gradient, cascades/chutes? [illegible]

ELECTROFISHER SPECIFICATIONS: 62 | 1137 | 1 | 1045 | 1100 | 149 | 30? | 1.0 | 0 | 500 | 10 | 4 | 26 | 128

GEAR SPECIFICATIONS: (blank)

SITE CARD

Field	Value
STREAM NAME	
LOCAL	Loops 1
WATERSHED CODE	
REACH	1 -
SITE	30
NID MAP	93K 0??
SITE ID	100, GE
ACCESS	V4
DATE	20000712
TIME	1415
AGENCY	C016
CREW	SR MJ
FISH FORM	Y N

CHANNEL	mthd						GRADIENT %
CHANNEL WIDTH (m)	HC	1.5	1.3	2.1	1.0	1.3	AL
WETTED WIDTH (m)	HC	1.5	1.3	2.1	1.0	1.3	1 0.5
RES. POOL DEPTH (m)	MS	0.1	0.2	0.15	0.1		1
W.D	0.3, 0.4, 0.3, MS	STAGE	(M)				

WATER	
TEMP	12 °C T3
pH	6.8 P2
COND.	µS/cm
TURB.	T M L (C)
FLD SNS	None

COVER — Total: A

Type	SWD	LWD	B	U	DP	OV	IV
AMT	T	T	-	S	S	T	D
LOC							

CROWN CLOSURE: 0 | 1 | 2 | (3) | 4 | 5

LWD FNC: N (F) A — DIST: C (E) — INSTREAM VEG: N (A) (M) (V)

LB SHP: (U) V S O — RB SHP: (U) V S O

TEXTURE: (F) G C B R A — TEXTURE: (F) G C B R A

RIP VEG: N G (S) C D M W — RIP VEG: N G (S) C D M W

STAGE: INIT SHR PS YF MF (NA) — STAGE: INIT SHR PS YF MF NA

MORPHOLOGY: BED MATERIAL Dominant F, Subdom NA; D95 (cm) 0.01; D (cm) 0.01; Morph LC

DISTURBANCE INDICATORS: O1 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

PATTERN: TM ME (IM) IR SI ST

ISLANDS: (N) O I F S AN

BARS: (N) SIDE DIAG MID SPAN BR

COUPLING: (DC) PC CO

CONFINEMENT: EN CO FC OC (UN) N/A

FEATURES: C | NID MAP # | NID # | TYPE | HT/LG (m) | PHOTO R___ F___ | COMMENTS | UTM

FISH COLLECTION FORM

Field	Value
STREAM NAME / LOCAL	Loops 1 — ☐ LAKE ☑ STREAM ☐ WETLAND
WATERSHED CODE	
SITE CARD(S) ATTACHED	☒ Y ☐ N
REACH	1 -
DATE	20000712
AGENCY	C016
CREW	SR MJ
	☐ RE-SAMPLE

SITE / METHOD

Site	NID MAP							MTD NO		CONDITION	COMMENTS
30	93K 0??							EF 1	12	C	

FISH SUMMARY

Site	Mtd	No		Species							Comments
30	EF	1	1	NFC		D					

GEAR SPECIFICATIONS

ELECTROFISHER SPECIFICATIONS

30	25	1	1	1450	1500	149	107	1.5	0	500	80	C	SR	RB

COMMENTS

HABITAT QUALITY

R - Poor - V. low flow, channel overgrown with [illegible] (grasses & algae) - aquatic water, murky channel, full of organics
S - none | not suitable RB hab at any time of
C - none | year, flows through swamp

FSZ ☐

PHOTO DOCUMENTATION

ROLL	#	FOCAL	DIR	COMMENTS
OPZ	2	–	U	[illegible]

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C site 100 m d/s from deactivated Rd [illegible]

C 56

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FISH SUMMARY

29	EF 1	1	NFC		0

SITE / METHOD

52	[illegible]		[illegible]	10	140

RE-SAMPLE

Y ☒ N ☐

HABITAT QUALITY

V. poor fish hab, channel filled with organics and freq moss beds, lacks good instream cover
Provides v. limited rearing hab only for RB but
Lack of spawning subst & good cover, deep pools
brisk flow unsuitable for RB use.
Hab perhaps out to improve after 30 m from mouth, more
FSZ ☐ organics & shallower.

PHOTO DOCUMENTATION

ROLL	#	FOCAL	DIR	COMMENTS
OPZ	17	ST	U	1118 (cam beg)
OPZ	18	ST	D	1119 (boat)

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C site from [illegible] Rd [illegible]

Stream does not provide hab to sustain potential RB population in LMPWA wetland reach.

(56)

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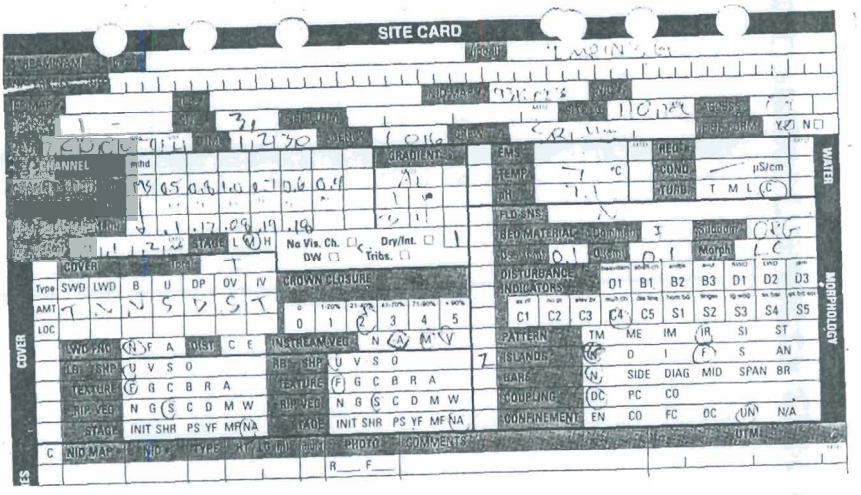
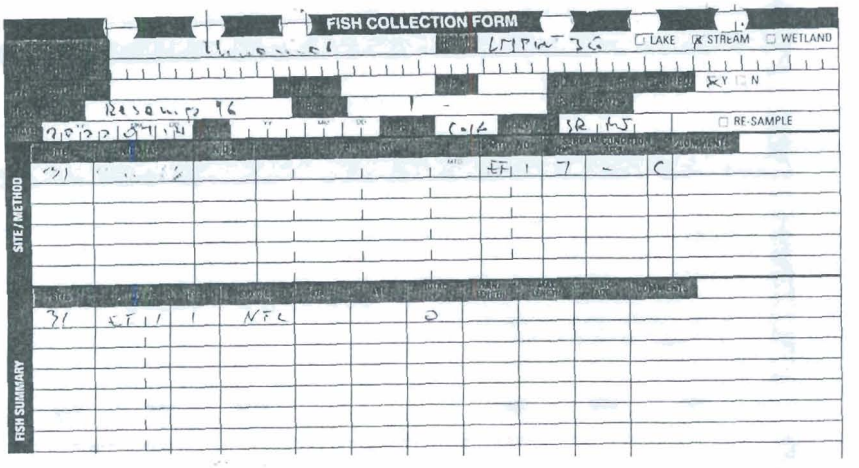
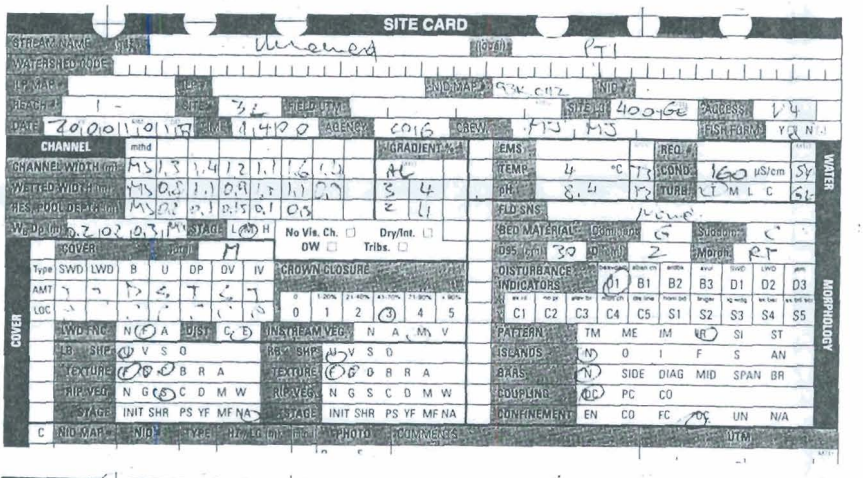
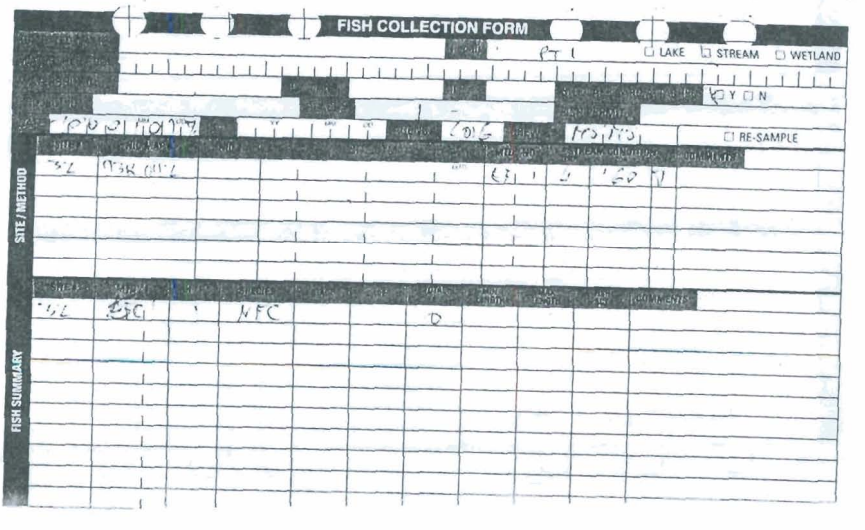

SITE CARD
CHANNEL
COVER
WATER
MORPHOLOGY
FISH SUMMARY


FISH COLLECTION FORM
LAKE
STREAM
WETLAND
RE-SAMPLE
SITE / METHOD
FISH SUMMARY


SITE CARD
CHANNEL
COVER
WATER
MORPHOLOGY
FISH SUMMARY


FISH COLLECTION FORM
LAKE
STREAM
WETLAND
RE-SAMPLE
SITE / METHOD
FISH SUMMARY

GEAR SPECIFICATIONS

ELECTROFISHER SPECIFICATIONS

42	EF	1	1400	1430	462	470	1.0	0	500	80	4	SR	[illegible]

COMMENTS

HABITAT QUALITY

Low value RB hab, [illegible] shallow, [illegible] [illegible] [illegible] substrate mixed F/G [illegible] in some [illegible] or shallow pools/cobble. Access [illegible] [illegible] 460 m d/s from rd xing, to the confl. [illegible] [illegible] [illegible] m d/s from rd xing) [illegible] Habitat deteriorates in [illegible] reach above confl. UTM 10.323195 6033174

FSZ ☐

PHOTO DOCUMENTATION

OPG	1	ST	U	1437 Coming
OPG	2	ST	D	1438 [illegible]

WILDLIFE

COMMENTS

C site 450 m d/s from rd xing

Wefer [illegible] due to road runoff inflow.

- ~~[illegible] 380 m~~ n/a
- ~~[illegible]~~

[illegible]

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GEAR SPECIFICATIONS

ELECTROFISHER SPECIFICATIONS

31	EF 11	1	1231	1245	239	200	0.7	0	500	80	6	SR	1215

COMMENTS

HABITAT QUALITY

- Trace of [illegible] [illegible] [illegible] [illegible] [illegible] RB habitat [illegible] [illegible] [illegible] [illegible]
- [illegible] substrate, no [illegible]

FSZ ☐

PHOTO DOCUMENTATION

OPZ	15	ST	[illegible]
OPZ	16	ST	[illegible]

WILDLIFE

COMMENTS

C Site = [illegible]

1 high [illegible] [illegible] [illegible]

2 [illegible] [illegible] [illegible] - [illegible]

[illegible] [illegible] [illegible] [illegible]

- [illegible] [illegible] [illegible] [illegible]

[illegible] EF [illegible]

NTC - 56

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SITE CARD

STREAM NAME			LOCAL	PT1
WATERSHED CODE				
ILP MAP			NID MAP	93K.002
REACH	2	SITE	FIELD UTM	SITE G	2016E	ACCESS	V4
DATE	2016	TIME	AGENCY	C016	CREW	FJ, MD	FISH FORM	Y / N

CHANNEL	mthd						GRADIENT
CHANNEL WIDTH (m)							
WETTED WIDTH (m)							5 8
RES POOL DEPTH (m)							10 9
Wb Dp (m)		STAGE L M H	No Vis. Ch.	Dry/Int.	DW	Tribs.	

WATER	
TEMP	4 °C
COND	160 µS/cm
pH	8.4
TURB	T M L C
FLD SNS	None

MORPHOLOGY	
BED MATERIAL	Dominant C / Subdom G
D95 (cm)	15
D (cm)	2
Morph	CP
DISTURBANCE INDICATORS	O1 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN	TM ME IM IR SI ST
ISLANDS	N O I F S AN
BARS	N SIDE DIAG MID SPAN BR
COUPLING	DC PC CO
CONFINEMENT	EN CO FC OC UN N/A

COVER	SWD	LWD	B	U	DP	OV	IV
Type							
AMT							
LOC							

CROWN CLOSURE: 0, 1 (1-20%), 2 (21-40%), 3 (41-70%), 4 (71-90%), 5 (>90%)

LWD FNC: N F A — DIST: C E — INSTREAM VEG: N A M V

	LB	RB
SHP	U V S O	U V S O
TEXTURE	F G C B R A	F G C B R A
RIP VEG	N G S C D M W	N G S C D M W
STAGE	INIT SHR PS YF MF NA	INIT SHR PS YF MF NA

FEATURES: C | NID MAP | NID | TYPE | HT | LEN | PHOTO R__ F__ | COMMENTS | UTM

FISH COLLECTION FORM

		LAKE	STREAM ☒	WETLAND
LOCAL	PT1			

Y ☐ N

DATE		AGENCY	C016	CREW	FJ, MJ	☐ RE-SAMPLE

SITE / METHOD

35	93K.002					EF	1	60	C

FISH SUMMARY

35	EF	1	NFC			0		

SITE CARD

STREAM NAME	X-ing 1 (0+450)	LOCAL	P1
WATERSHED CODE	480-...		
ILP MAP		NID MAP	NID
REACH	1	SITE	FIELD UTM	SITE G	2016E	ACCESS
DATE	2016	TIME	AGENCY	C016	CREW	FJ, MV	FISH FORM	Y / N

CHANNEL	mthd						GRADIENT
CHANNEL WIDTH (m)		.9	1.2	1.2	1.3		AL
WETTED WIDTH (m)		.7		.9	.6	1.0	1 2
RES POOL DEPTH (m)	MS	.9	.3	.1	.2	.05	1 2
Wb Dp (m)		.2	STAGE L M H	No Vis. Ch.	Dry/Int.	DW	Tribs.

WATER	
TEMP	°C
COND	µS/cm
pH	
TURB	T M L C
FLD SNS	N

MORPHOLOGY	
BED MATERIAL	Dominant F / Subdom G
D95 (cm)	65
D (cm)	.5
Morph	RP
DISTURBANCE INDICATORS	O1 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN	TM ME IM IR SI ST
ISLANDS	N O I F S AN
BARS	N SIDE DIAG MID SPAN BR
COUPLING	DC PC CO
CONFINEMENT	EN CO FC OC UN N/A

COVER	SWD	LWD	B	U	DP	OV	IV
Type							
AMT	T	T	T	S	D	S	N
LOC							

COVER TOTAL: A

CROWN CLOSURE: 0, 1 (1-20%), 2 (21-40%), 3 (41-70%), 4 (71-90%), 5 (>90%)

LWD FNC: N F A — DIST: C E — INSTREAM VEG: N A M V

	LB	RB
SHP	U V S O	U V S O
TEXTURE	F G C B R A	F G C B R A
RIP VEG	N G S C D M W	N G S C D M W
STAGE	INIT SHR PS YF MF NA	INIT SHR PS YF MF NA

FEATURES: C | NID MAP | NID | TYPE | HT | LEN | PHOTO R__ F__ | R__ F__ | COMMENTS | UTM

FISH COLLECTION FORM

		LAKE	STREAM ☒	WETLAND
STREAM NAME	Unnamed trib 1	LOCAL	P1	
WATERSHED CODE	480-...			

☒ Y ☐ N

DATE		AGENCY	C016	CREW	MS, DV	☐ RE-SAMPLE

SITE / METHOD

34	93K.042					EF	1	11	C

FISH SUMMARY

34	EF	1	1	RB	A	1	160	160	R
34	EF	1	1	RB	J	9	38	90	R
34	EF	1	1	RB	F	3	25	36	R

NET / TRAP SPECIFICATIONS

GEAR SPECIFICATIONS

C													

ELECTROFISHER SPECIFICATIONS

[illegible]	[illegible]	1	12.50	[illegible]	184	220			0	[illegible]	60	4	SR	[illegible]

COMMENTS

: 25, 30, 32, 70, 41, 160, 72, 87, 82, 90, 36, 52, 38, 56
: Cannot fig out species of small (below 60) fish, but all bigger ones were definitely RB (does not even shows hybrid morphology)

HABITAT QUALITY

P: very good – deep [illegible]
S: [illegible]
C: good [illegible]

FSZ ☐

PHOTO DOCUMENTATION

[illegible]	22	[illegible]	2	[illegible]
[illegible]	[illegible]	[illegible]	0	[illegible]

WILDLIFE

COMMENTS

C [illegible]

NET / TRAP SPECIFICATIONS

GEAR SPECIFICATIONS

C													

ELECTROFISHER SPECIFICATIONS

[illegible]	[illegible]	1	1455	1520	107	250	0.3	0	500	80	4	SR	12B

COMMENTS

Difficult EF [illegible] enough [illegible]

HABITAT QUALITY

[illegible]

FSZ ☐

PHOTO DOCUMENTATION

OP6	3	[illegible]	[illegible]	1518	Peter Jester
OP6	4	[illegible]	[illegible]	1519	Com Dep

WILDLIFE

COMMENTS

C [illegible] from the [illegible]

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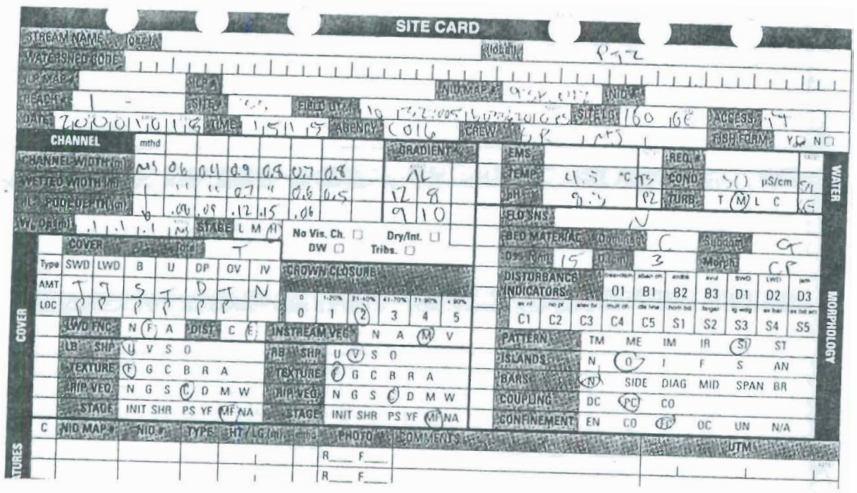
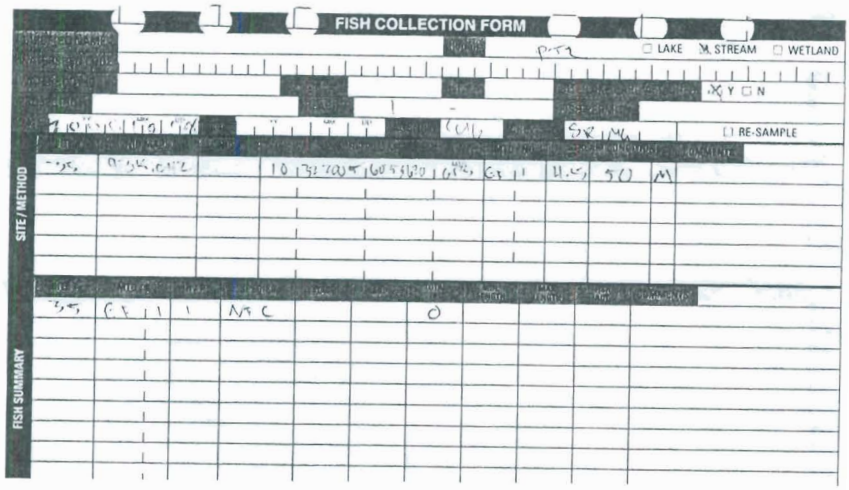
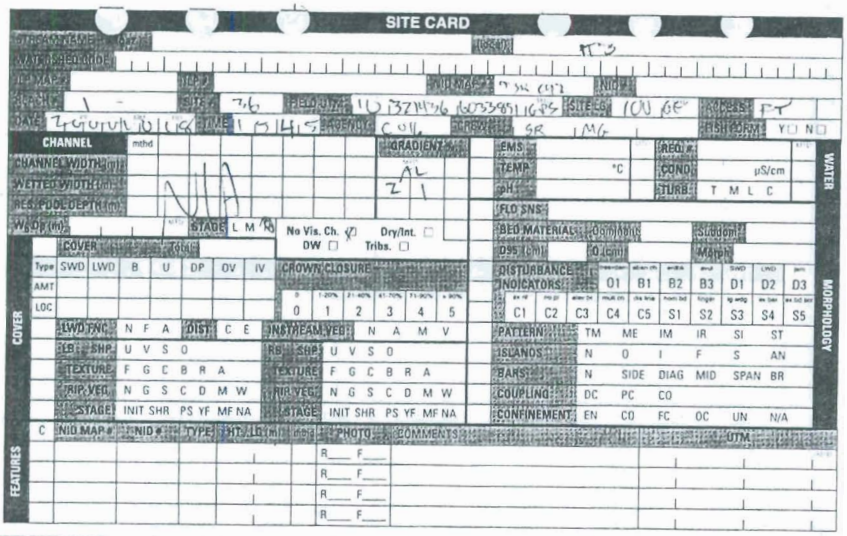
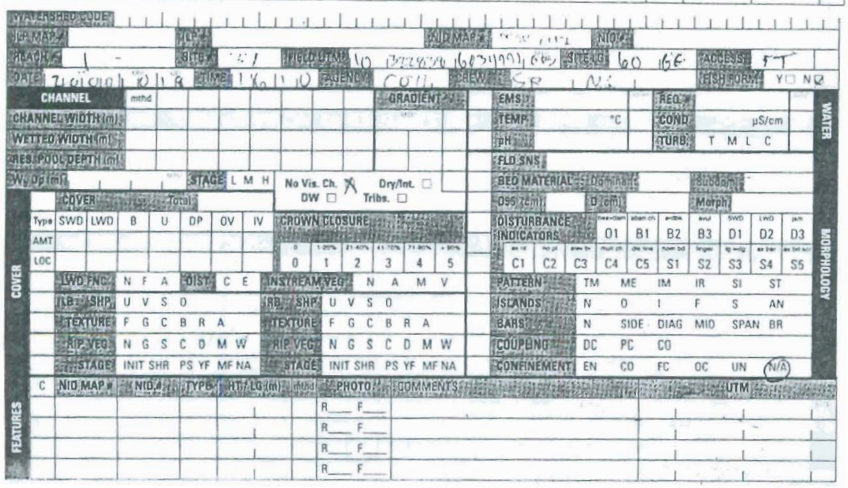

SITE CARD
STREAM NAME
WATERSHED CODE
UP MAP #
REACH #
SITE #
DATE
TIME
AGENCY
CREW
CHANNEL
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W. DEPTH (m)
STAGE L M H
No Vis. Ch.
DW
Dry/Int.
Tribs.
GRADIENT
COVER
Type SWD LWD B U DP OV IV
AMT
LOC
CROWN CLOSURE
LWD FNC N F A DIST C E
INSTREAM VEG N A M V
LB SHP U V S O
RB SHP U V S O
TEXTURE F G C B R A
RIP VEG N G S C D M W
STAGE INIT SHR PS YF MF NA
EMS
TEMP °C
pH
REQ #
COND µS/cm
TURB T M L C
FLO SNS
BED MATERIAL
D50 (cm)
D (cm)
Morph
DISTURBANCE INDICATORS
O1 B1 B2 B3 D1 D2 D3
C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A
WATER
MORPHOLOGY
FEATURES
C NID MAP # NID # TYPE HT / LG (m) PHOTO COMMENTS UTM
R___ F___


FISH COLLECTION FORM
LAKE
STREAM
WETLAND
RE-SAMPLE
SITE / METHOD
FISH SUMMARY


SITE CARD
STREAM NAME
WATERSHED CODE
UP MAP #
REACH #
SITE #
DATE
TIME
AGENCY
CREW
CHANNEL
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W. DEPTH (m)
STAGE L M H
No Vis. Ch.
DW
Dry/Int.
Tribs.
GRADIENT
COVER
Type SWD LWD B U DP OV IV
AMT
LOC
CROWN CLOSURE
LWD FNC N F A DIST C E
INSTREAM VEG N A M V
LB SHP U V S O
RB SHP U V S O
TEXTURE F G C B R A
RIP VEG N G S C D M W
STAGE INIT SHR PS YF MF NA
EMS
TEMP °C
pH
REQ #
COND µS/cm
TURB T M L C
FLO SNS
BED MATERIAL
D50 (cm)
D (cm)
Morph
DISTURBANCE INDICATORS
O1 B1 B2 B3 D1 D2 D3
C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A
WATER
MORPHOLOGY
FEATURES
C NID MAP # NID # TYPE HT / LG (m) PHOTO COMMENTS UTM
R___ F___


WATERSHED CODE
UP MAP #
REACH #
SITE #
DATE
TIME
AGENCY
CREW
CHANNEL
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W. DEPTH (m)
STAGE L M H
No Vis. Ch.
DW
Dry/Int.
Tribs.
GRADIENT
COVER
Type SWD LWD B U DP OV IV
AMT
LOC
CROWN CLOSURE
LWD FNC N F A DIST C E
INSTREAM VEG N A M V
LB SHP U V S O
RB SHP U V S O
TEXTURE F G C B R A
RIP VEG N G S C D M W
STAGE INIT SHR PS YF MF NA
EMS
TEMP °C
pH
REQ #
COND µS/cm
TURB T M L C
FLO SNS
BED MATERIAL
D50 (cm)
D (cm)
Morph
DISTURBANCE INDICATORS
O1 B1 B2 B3 D1 D2 D3
C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A
WATER
MORPHOLOGY
FEATURES
C NID MAP # NID # TYPE HT / LG (m) PHOTO COMMENTS UTM
R___ F___

HABITAT QUALITY

NONC = shrubby/natural [illegible] [illegible] channel present.

FSZ ☐

PHOTO DOCUMENTATION

ROLL		FOCAL	DIR	COMMENTS
33	[illegible]	ST	U	(cam [illegible])
33	11	ST	D	(M6) taken from R1 standing - [illegible] channel [illegible] in background

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C Site [illegible]
No defined channel present [illegible]
creek disperses [illegible]
[illegible] R1 [illegible] [illegible]
with no continuous [illegible] channel bed/banks. No fish habitat

C and [illegible] [illegible] R1 was dry [illegible] high flow period - No O.W. habitat
NCD

Rev. Apr. 1998

HABITAT QUALITY

FSZ ☐

PHOTO DOCUMENTATION

ROLL		FOCAL LG	DIR	COMMENTS
33	2	ST	U	(SR) note moss puddles (d/s from road)
OP4	1	ST	U	(SR) (u/s from road)

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C Site = VTM = 100 m d/s from road
- "creek" lacks continuous channel bed/banks and has no fish habitat. Drainage consists of water which disperses and percolates into mossy floor with occasional disconnected moss puddles, d/s from road

C No continuity to Pinkut C. or fish bearing trib. Sed's from road would be captured in mossy forest floor. Water [illegible] [illegible] through!
NCD

Rev. Apr. 1998

GEAR SPECIFICATIONS

ELECTROFISHER SPECIFICATIONS

[illegible]	[illegible]	1	15:15	15:15	198	160	0.6	0	100	50	6	[illegible]	[illegible]

COMMENTS

- Brief [illegible] I.S.V. - showed all possible habitat, but no fish & no preferable fish habitat.

HABITAT QUALITY

Overall: very poor. Moderately steep, small gully flow over mossy cobble/organics. Accessible based on gradient, but no fisheries habitat. Pools too shallow for fish and flow is [illegible] with no instream cover.
No sig. spawning, NO O.W.

FSZ ☐

PHOTO DOCUMENTATION

ROLL		FOCAL	DIR	COMMENTS
31	25	ST	U	(cam bag)
33	1	ST	D	(cam bag)

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C Site = VTM = [illegible]
Non-fish bearing but continuous channel to Pinkut. At time of sampling, flow was high d/t recent heavy rain. Turbid water d/s from road observed right to Pinkut

C Short section, but sed deposition likely!
NFC - S6

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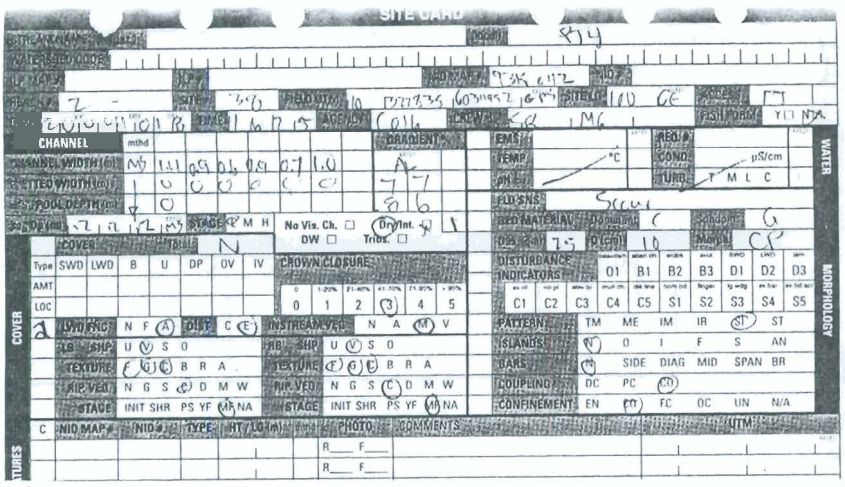
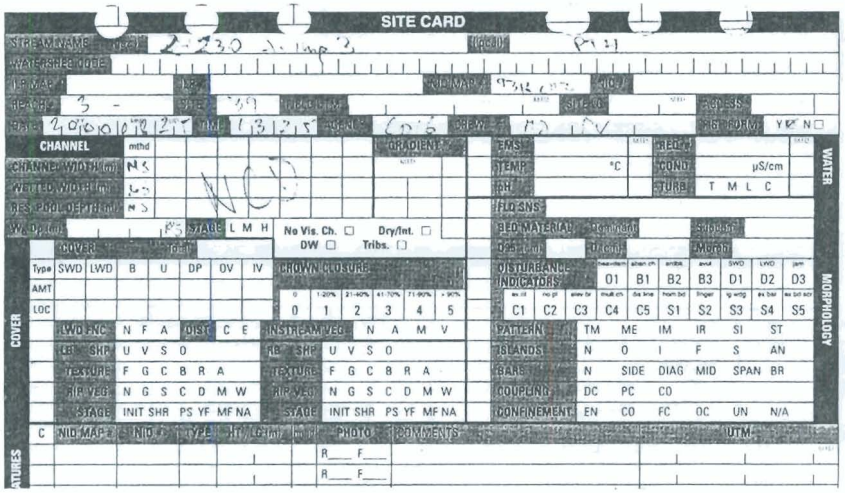
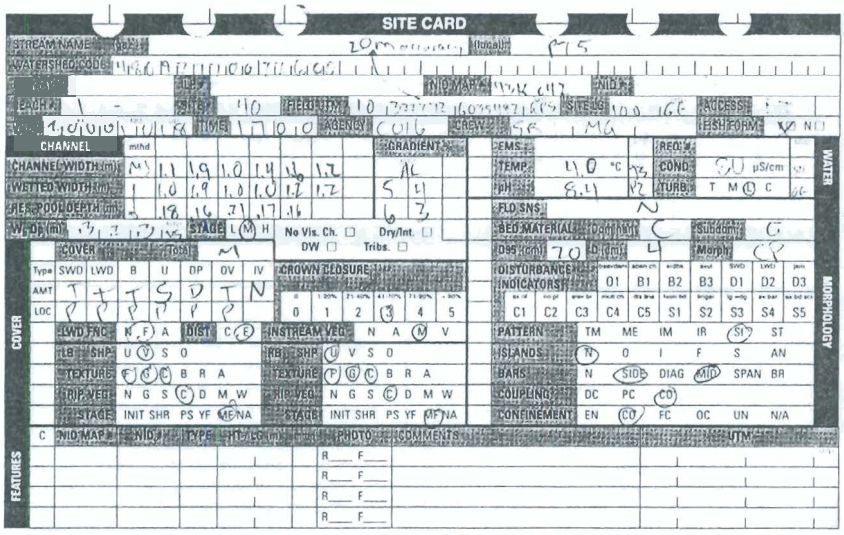
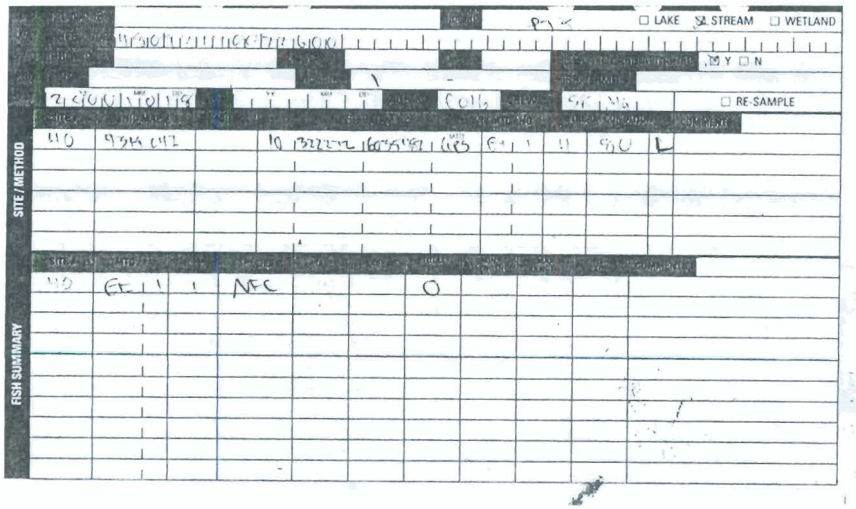

SITE CARD
CHANNEL
WATER
COVER
MORPHOLOGY
FEATURES


SITE CARD
CHANNEL
WATER
COVER
MORPHOLOGY
FEATURES


SITE CARD
CHANNEL
WATER
COVER
MORPHOLOGY
FEATURES


SITE / METHOD
FISH SUMMARY

GEAR SPECIFICATIONS

ELECTROFISHER SPECIFICATIONS

110	EF[illegible]	1	1700	1720	204	150	1.1	0	700	50	6	50	[illegible]

COMMENTS

HABITAT QUALITY

V. nice overall [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]
- Some [illegible] spawning in [illegible] gravel pockets, [illegible] [illegible]
- Some O.W. good [illegible] but lacks deep [illegible] [illegible]

- Easily and likely accessible from Pinkut C. for R.B!

FSZ ☐

PHOTO DOCUMENTATION

			DIR	COMMENTS
33	7	ST	U	(cam. bag)
33	8	ST	D	(cam. bag)

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C Site: UTM - mouth
Water slightly turbid from recent rain / [illegible], [illegible] road [illegible].
[illegible] [illegible] sediment transport [illegible] and [illegible] occur, [illegible] to Pinkut C.
Nice creek [illegible] [illegible] [illegible]

C FPC depends on its [illegible] [illegible] constructed here.

HABITAT QUALITY

[illegible] [illegible] [illegible] flooded wetland [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] channel u/s

FSZ ☐

PHOTO DOCUMENTATION

			DIR	COMMENTS
OP4	2	St	U	13:35 (flooded wetland u/s - taken from the rd [illegible]
OP4	3	St	D	13:36 (d/s - pool + no channel - [illegible] [illegible]

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C u/s + d/s from the rd

C (N C)

HABITAT QUALITY

NONE - bone dry, no O.W. hab, no suitable spawning gravels observed and moderately steep [illegible] v. low instream cover during high [illegible] for seasonal rearing. No connection to Pinkut regardless

site

FSZ ☐

PHOTO DOCUMENTATION

			DIR	COMMENTS
33	5	ST	U	channel not really visible → moss-covered, small - photos
33	6	ST	D	steep confined gully (cam bag)

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C Site: UTM: search boundary
Flow is low/dry now, but most other creeks in area in mod-high stage d/t recent heavy rain. Prone to high flow events as evidenced by channel scour and gravel/cobble/debris deposition into fan at top of R. 1

C NS - S6
No connection to Pinkut d/t lack of defined channel in R.1, no perennial habitat present. Creek is high flow/ephemeral, confined gully, [illegible] channel / [illegible] [illegible] [illegible]

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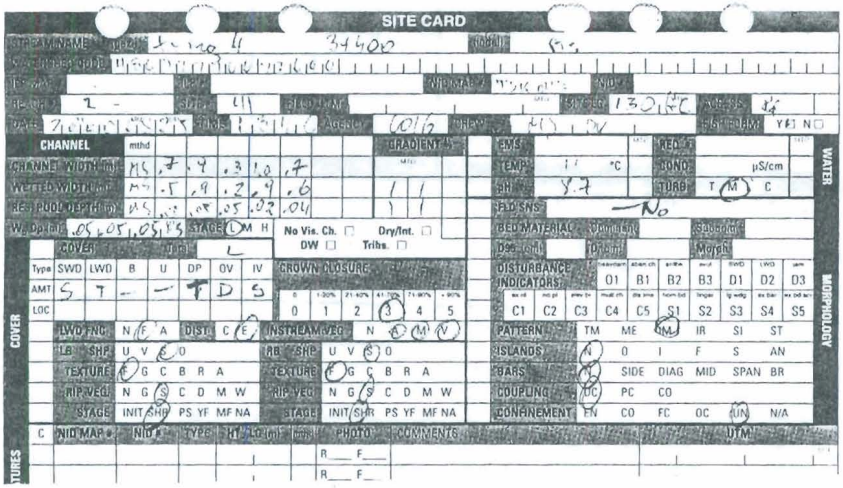
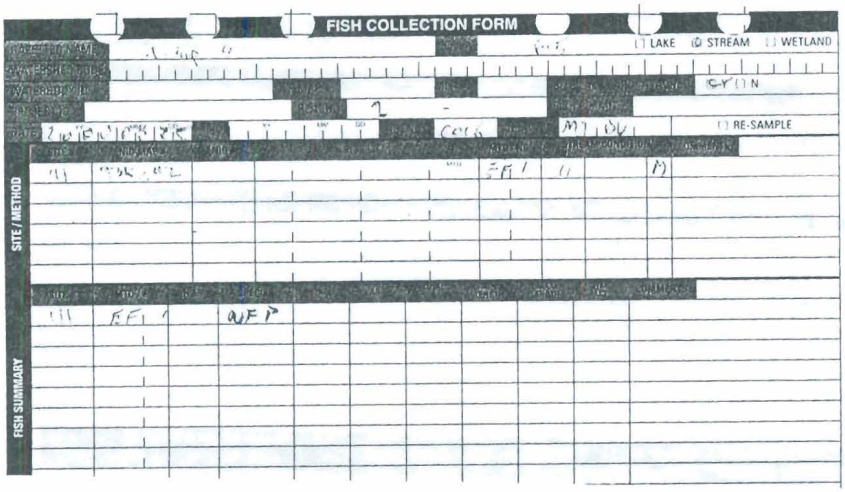
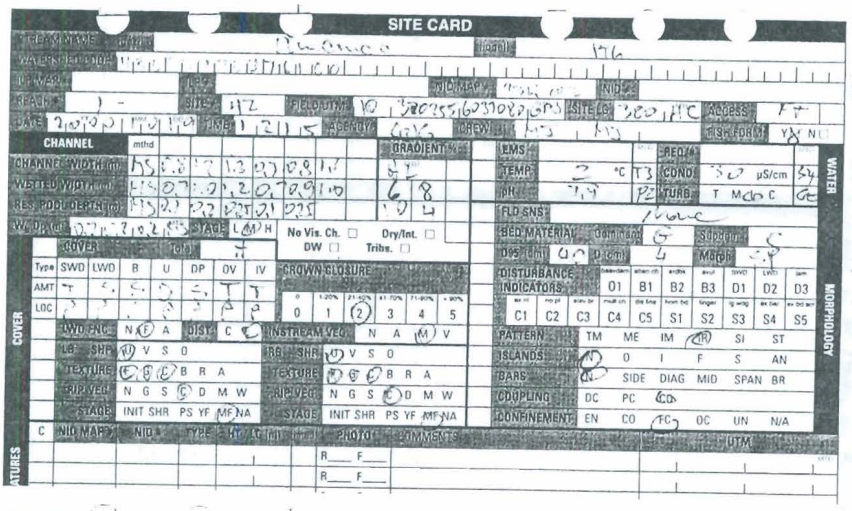
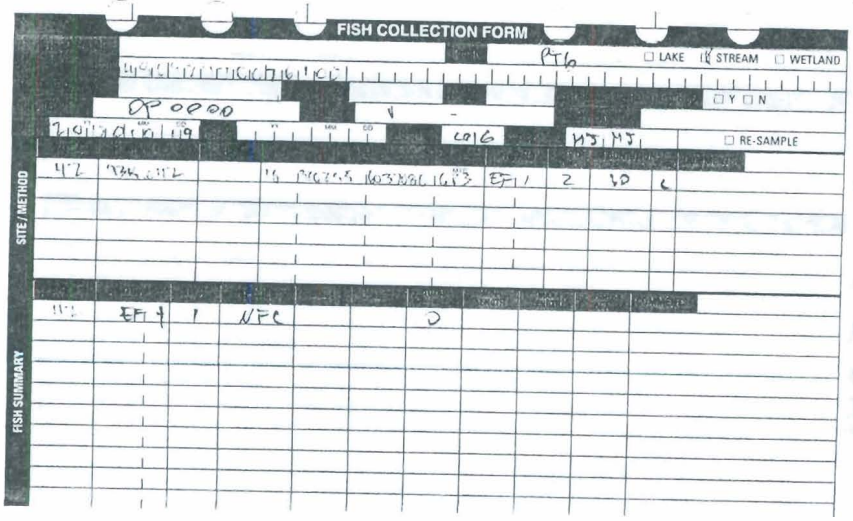

SITE CARD
CHANNEL
WATER
COVER
MORPHOLOGY
FEATURES


FISH COLLECTION FORM
LAKE
STREAM
WETLAND
RE-SAMPLE
SITE / METHOD
FISH SUMMARY


SITE CARD
CHANNEL
WATER
COVER
MORPHOLOGY
FEATURES


FISH COLLECTION FORM
LAKE
STREAM
WETLAND
RE-SAMPLE
SITE / METHOD
FISH SUMMARY

GEAR SPECIFICATIONS

ELECTROFISHER SPECIFICATIONS

42	EF11	1	1215	1275	416	360	10	0	500	60	4	58	12B

COMMENTS

HABITAT QUALITY

Good [illegible] habitat, likely used in spring, summer & fall.
R - [illegible] in fairly diverse cover and easily accessible from [illegible] C.
S - G abundant in patches with slow flowing steps and good holding places. O - water too shallow → [illegible] C

FSZ ☐

PHOTO DOCUMENTATION

DFC	8	35	U	1232 upriver
DFC	9	35	D	1233 downriver

WILDLIFE

COMMENTS

C Site [illegible] [illegible] u/s. Nice habitat to 380 m u/s from mouth, then C flattens out with shallow meandering channel (UTM 10,319972, 6032,837)

[illegible] [illegible] [illegible] [illegible]

C

NET / TRAP SPECIFICATIONS

C

GEAR SPECIFICATIONS

ELECTROFISHER SPECIFICATIONS

41	EF11	[illegible]	1352	14.10	48	130		0	400	60	[illegible]	58	[illegible]

COMMENTS

[illegible] fish would utilize this habitat.

HABITAT QUALITY

R - [illegible] [illegible] - no flow throughout the year, [illegible] [illegible] low quality water, [illegible] [illegible] all kinds of [illegible] [illegible] well developed [illegible] - [illegible] [illegible] [illegible] but [illegible] [illegible] [illegible] [illegible] potential
No S, O

FSZ ☐

PHOTO DOCUMENTATION

DFC	4	32	D	14.00
DFC	5	32	U	14.[illegible]

WILDLIFE

COMMENTS

C [illegible] u/s to the [illegible] of the swamp.

[illegible] [illegible] [illegible]

C

56

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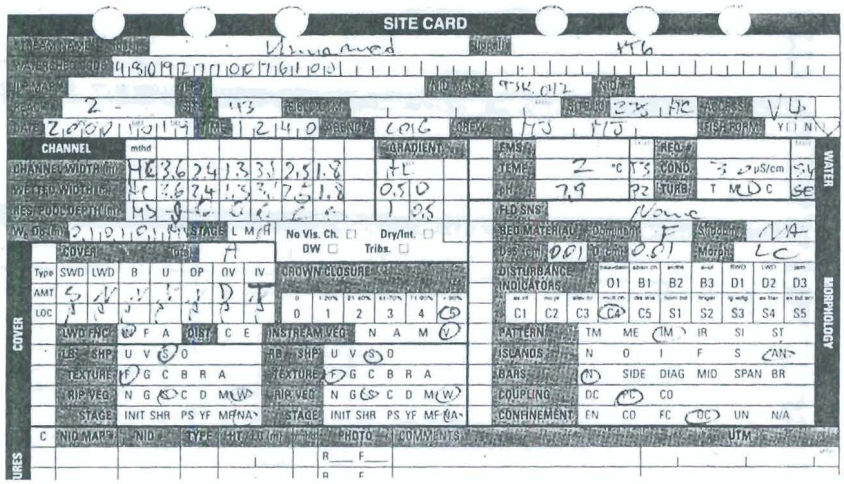
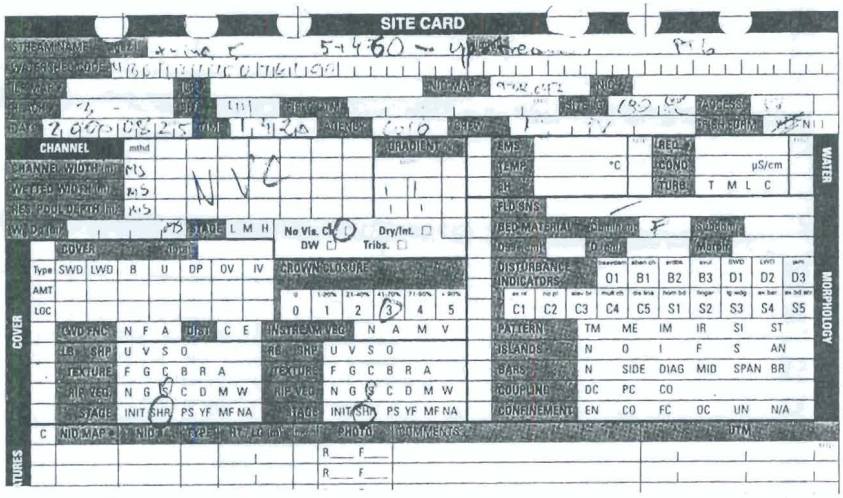
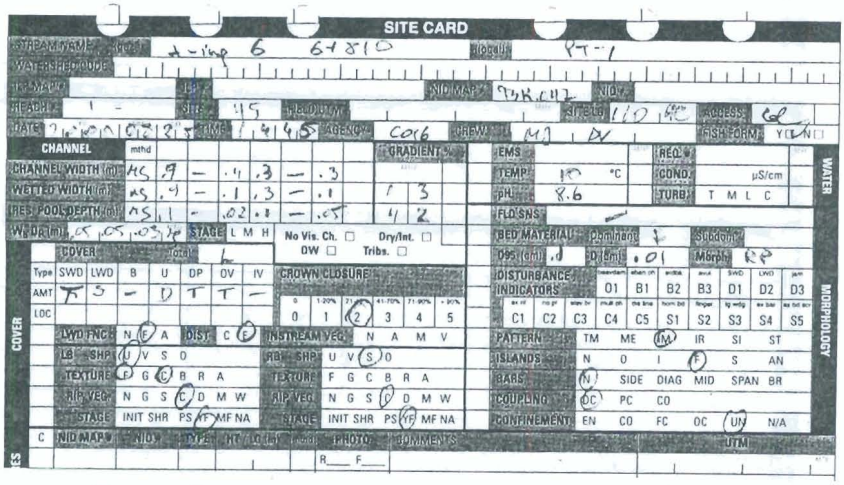
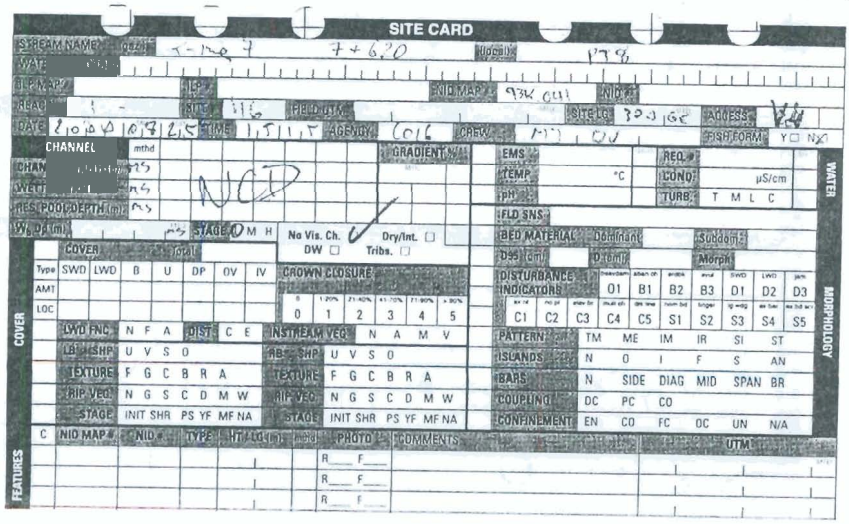

SITE CARD
Unnamed
YT6
CHANNEL
GRADIENT
WATER
MORPHOLOGY
COVER
FEATURES


SITE CARD
54460 - upstream
YT6
CHANNEL
GRADIENT
WATER
MORPHOLOGY
COVER
FEATURES


SITE CARD
2-imp 6 6+810
YT-1
CHANNEL
GRADIENT
WATER
MORPHOLOGY
COVER
FEATURES


SITE CARD
2-imp 7 7+620
YT8
CHANNEL
GRADIENT
WATER
MORPHOLOGY
COVER
FEATURES

HABITAT QUALITY

[illegible] channel [illegible] due [illegible] the
main water supplier.
[illegible] channel [illegible] wetlands, [illegible] depressions [illegible]
[illegible] C. [illegible] could [illegible]

FSZ ☐

PHOTO DOCUMENTATION

ROLL		FOCAL	DIR	COMMENTS
OP4	11	17	U	15,17
OP4	12	14	D	15,18

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C @ 12m d/s from rd → to 11[illegible] u/s from rd,

Where is the CCT

HABITAT QUALITY

R [illegible] pool [illegible] beginning of the site - now connected [illegible]
only [illegible] possibility
No S,O
- [illegible] mostly [illegible] UC
[illegible] but [illegible] [illegible]
[illegible] 15% [illegible] isolated [illegible]

FSZ ☐

PHOTO DOCUMENTATION

ROLL		FOCAL	DIR	COMMENTS
OP4	9	34	U	14,34 D/s from rd channel developed [illegible] till it
OP4	10	34	D	14,32 [illegible] wetland where channel changes into [illegible] depressions in the ground, High washout at the rd.

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C @ u/s from rd [illegible] 110m
Borderline channel. At [illegible] banks are not developed, creek flows (if H2O) through forest floor. Then @ 140 [illegible]
very dropping channel again
Not shocked: only 2 places where [illegible]

(S6)

HABITAT QUALITY

No continuous banks, no fluvial substrate.
[illegible] depressions in the valley floor, filled with potholes [illegible], [illegible] etc!

FSZ ☐

PHOTO DOCUMENTATION

ROLL		FOCAL	DIR	COMMENTS
OP4	6	50	U	14:[illegible]
OP4	7	44	D	[illegible]
[illegible]	8	84	D	14,43 (d/s from rd marginal channel.

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C @ rd [illegible] u/s for [illegible]
D/s from rd channel ([illegible]) with [illegible] - LR, UN, BC
with no habitat potential - [illegible] for rd washout, [illegible], [illegible] LWD, SWD, OV.

HABITAT QUALITY

NFH - Shallow stream, dispersing through wetland
located ~9m d/s from rd xing, creates many
mudholes barely connected by channel, however
@ high flow pools are connected [illegible]
Lacks D, ISC for R & Gravel for S (inorganic Gov)

FSZ ☐

PHOTO DOCUMENTATION

ROLL		FOCAL	DIR	COMMENTS
CP6	12	55	U	1257 flee
CP6	11	55	X	1259 flee

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C [illegible] from LR bdry

Rd reconstruction impact d/s due to fines settlement in LI d/s. However even this reconstr should be done in driest season.

(S6)

SITE CARD

STREAM NAME: Forgie C.

WATERSHED CODE: 180-374000-95200-91900-91-00

NID MAP #: 93K.031

SITE: 47

SITE LG: [illegible] — ACCESS: [illegible]

TIME: 1420 — AGENCY: C010 — CREW: AJ, JV — FISH FORM: Y ☒ N ☐

CHANNEL	mthd						GRADIENT
CHANNEL WIDTH (m)	MS	2.8	1.3	4.0	2.7	2.1	AV
WETTED WIDTH (m)	MS						2
RES. POOL DEPTH (m)	MS	.1	.03		.05	.15	3

STAGE: (L) M H — No Vis. Ch. ☐ — DW ☐ — Dry/Int. ☒ — Tribs. ☐

WATER			
TEMP	12 °C	COND.	150 µS/cm
pH	8.4	TURB.	T M L (C)

BED MATERIAL: Dominant C — Subdom. G — D95 (cm) 24 — D (cm) .5 — Morph. R-RP

COVER: Total n

Type	SWD	LWD	B	U	DP	OV	IV
AMT		S	B	T	D	T	—
LOC							

CROWN CLOSURE: 0 1 2 (3) 4 5

LWD FNC: N (F) A — DIST: C (E) — INSTREAM VEG: (N) A M V

LB SHR: U V (S) O — RB SHR: U (V) S O

TEXTURE: (F) (G) C B R A — TEXTURE: (F) (G) C B R A

RIP VEG: N G (S) C (D) M W — RIP VEG: N G (S) C D M W

STAGE: INIT SHR PS YF MF NA — STAGE: INIT SHR (PS) YF MF NA

DISTURBANCE INDICATORS: O1 B1 B2 B3 D1 D2 D3 C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

PATTERN: TM ME IM IR (SI) ST

ISLANDS: (N) O I F S AN

BARS: N SIDE (DIAG) MID SPAN BR

COUPLING: (DC) PC CO

CONFINEMENT: EN CO FC OC (UN) N/A

FEATURES: C | NID MAP # | NID # | TYPE | HT | LG (m) | PHOTO R___ F___ | COMMENTS | UTM

FISH COLLECTION FORM

Forgie C. — ☐ LAKE ☒ STREAM ☐ WETLAND

180-374000-95200-91900-91-00

FISH FORM: ☒ Y ☐ N

7

C016 — AJ, JV — ☐ RE-SAMPLE

SITE / METHOD

47	93K024 / 93K.031	171	12	50	C

FISH SUMMARY

47	EF1	1	RB	A	1	172	172	R

SITE CARD

STREAM NAME: Forgie C.

WATERSHED CODE: 180-374000-95200-91900-91-00

NID MAP #: 93K.031

SITE: 48

SITE LG: 1000 [illegible] — ACCESS: [illegible]

TIME: 1540 — FISH FORM: Y ☒ N ☐

CHANNEL	mthd	GRADIENT
CHANNEL WIDTH (m)	MS	
WETTED WIDTH (m)	MS	
RES. POOL DEPTH (m)	MS	3

STAGE: (L) M H — No Vis. Ch. ☐ — DW ☐ — Dry/Int. ☐ — Tribs. ☐

WATER			
TEMP	8 °C	COND.	120 µS/cm
pH	8.8	TURB.	T M L (C)

BED MATERIAL: Dominant C — Subdom. G — D95 (cm) 21 — Morph. [illegible]

COVER: Total M

Type	SWD	LWD	B	U	DP	OV	IV
AMT		S	T	T	D	T	
LOC							

CROWN CLOSURE: 0 1 2 (3) 4 5

LWD FNC: N (F) A — DIST: C (E) — INSTREAM VEG: N A M V

LB SHR: (U) V S O — RB SHR: U (V) S O

TEXTURE: (F) G C B R A — TEXTURE: F G C B R A

RIP VEG: N G (S) C D M W — RIP VEG: N G S C D M W

STAGE: INIT (SHR) PS YF MF NA — STAGE: INIT SHR PS YF MF NA

DISTURBANCE INDICATORS: O1 B1 B2 B3 D1 D2 D3 C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

PATTERN: TM ME IM (IR) SI ST

ISLANDS: N (O) I F S AN

BARS: N (SIDE) (DIAG) (MID) SPAN BR

COUPLING: DC (PC) (CO)

CONFINEMENT: EN (CO) FC OC UN N/A

FEATURES: C | NID MAP # | NID # | TYPE | HT | LG (m) | PHOTO R___ F___ | COMMENTS | UTM

FISH COLLECTION FORM

Forgie C. — ☐ LAKE ☒ STREAM ☐ WETLAND

180-374000-95200-91900-91-00

FISH FORM: ☐ Y ☐ N

8

☐ RE-SAMPLE

SITE / METHOD

48	93K.031	171	8	100	C

FISH SUMMARY

48	EF1	1	CC	/	20	68	91	R
48	EF1	1	RB	A	7	167	192	R

GEAR SPECIFICATIONS

ELECTROFISHER SPECIFICATIONS

48	[illegible]		[illegible]	16.30	276	1000		[illegible]	[illegible]	60	[illegible]	[illegible]	[illegible]

COMMENTS

[illegible]

first fish captured: 2931 - [illegible] in Se[illegible]

up to 3465m ([illegible])

HABITAT QUALITY

FSZ ☐

PHOTO DOCUMENTATION

ROLL #		FRAME #	DIR.	COMMENTS

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C

C

Rev. Apr. 1998

GEAR SPECIFICATIONS

ELECTROFISHER SPECIFICATIONS

47	EF		[illegible]	[illegible]	187	[illegible]		[illegible]	500	60	[illegible]	[illegible]	[illegible]

COMMENTS

[illegible] - fish @ [illegible] ([illegible])

Rev. Apr. 1998

№ 012972

CARD

OF

HABITAT QUA[LITY]

FSZ ☐

PHOTO DOCUMENTATION

ROLL #		FRAME #	DIR.	COMMENTS
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C

C

Rev. Apr. 1998

SITE CARD

STREAM NAME (gaz'd): Forpie C (local):
WATERSHED CODE: 180374000952009190091000
ILP MAP: ILP: NID MAP: 93K 031 NID:
REACH: 4 - SITE: 49 FIELD UTM: SITE LG: 110 ACCESS:
DATE: 1999 08 24 TIME: 1430 AGENCY: C016 CREW: MD DV FISH FORM: Y☐ N☐

CHANNEL	mthd						GRADIENT	
CHANNEL WIDTH (m)	MC	2.6	1.2	2.6	1.3	1.5		
WETTED WIDTH (m)	MC	.9	.7	2.2	1.1	.3	4	4
RES POOL DEPTH (m)	m	.05	.1	.2	.1	.05	4	3

W. Dp (m): STAGE: (L) M H — No Vis. Ch. ☐ Dry/Int. ☐ DW ☐ Tribs. ☐

WATER — EMS: TEMP: 10 °C; pH: 8.0; REQ #: COND: 20 μS/cm; TURB: T M L (C)

MORPHOLOGY — FLD SNS: BED MATERIAL Dominant: C Subdom: S; D95 (cm): 30 D (cm): 2 Morph:

DISTURBANCE INDICATORS: O1 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

PATTERN: TM ME IM (IR) SI ST
ISLANDS: N (O) I F S AN
BARS: (N) SIDE DIAG MID SPAN BR
COUPLING: DC (PC) CO
CONFINEMENT: EN CO (FC) OC UN N/A

COVER — Total: L

Type	SWD	LWD	B	U	DP	OV	IV
AMT	T	N	N	T	D	T	-
LOC							

CROWN CLOSURE: 0 (0) 1–20% (1) 21–40% (2) 41–70% (3) 71–90% (4) >90% (5) — 3–4 circled

LWD FNC: N (F) A DIST: C (E) INSTREAM VEG: N A (M) V
LB SHP: U (V) S O — RB SHP: U (V) S O
TEXTURE: F G (C) (B) R A — TEXTURE: F G C B R A
RIP VEG: N G (S) C D M W — RIP VEG: N G S (C) D M W
STAGE: INIT (SHR) PS YF MF NA — STAGE: INIT SHR PS YF (MF) NA

C	NID MAP #	NID #	TYPE	HT/LG (m)	PHOTO	COMMENTS	UTM
	93K 031		C	15 m	R__ F12	@ 334 m [illegible]	
					R__ F__	[illegible]	

FISH COLLECTION FORM

☐ LAKE ☑ STREAM ☐ WETLAND

GAZETTED NAME: Forpie C.
WATERSHED CODE: 180374000952009190091000
SITE CARD ATTACHED: ☑Y ☐N
REACH: 4
DATE: 1999 08 24 AGENCY: C016 CREW: MD DV ☐ RE-SAMPLE

SITE	NID MAP					METHOD	NO.			COND.	COMMENTS
49	93K 031					EF	10	70		C	

FISH SUMMARY

SITE	METHOD		SPECIES							COMMENTS
49	EF 1		NFC							

SITE CARD

STREAM NAME (gaz'd): Forpie C (local):
WATERSHED CODE: 180374000952009190091000
ILP MAP: ILP: NID MAP: 93K 031 NID:
REACH: 11 - SITE: 50 FIELD UTM: SITE LG: 240 ACCESS:
DATE: 1999 08 24 TIME: 1110 AGENCY: C016 CREW: MD DV FISH FORM: Y☑ N☐

CHANNEL	mthd						GRADIENT	
CHANNEL WIDTH (m)	HC	.6	.3	1.2	.9	1.4		
WETTED WIDTH (m)	HC	.1	.5	.2	.2	1.3	1	2
RES POOL DEPTH (m)	HS	.05	.1	.1	.1	.5	2	2

W. Dp (m): .1 .15 .15 STAGE: (L) M H — No Vis. Ch. ☐ Dry/Int. ☐ DW ☐ Tribs. ☐

WATER — EMS: TEMP: 9 °C; pH: 8.9; REQ #: COND: 10 μS/cm; TURB: T M L (C)

MORPHOLOGY — FLD SNS: BED MATERIAL Dominant: F Subdom: C; D95 (cm): 20 D (cm): .5 Morph: RP

DISTURBANCE INDICATORS: O1 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

PATTERN: TM ME IM IR (SI) ST
ISLANDS: (N) O I F S AN
BARS: (N) SIDE DIAG MID SPAN BR
COUPLING: (DC) PC CO
CONFINEMENT: EN CO FC OC (UN) N/A

COVER — Total: 41

Type	SWD	LWD	B	U	DP	OV	IV
AMT	T	-	T	D	S	T	-
LOC							

CROWN CLOSURE: 0 (0) 1–20% (1) 21–40% (2) 41–70% (3) 71–90% (4) >90% (5) — 2 circled

LWD FNC: N F (A) DIST: C (E) INSTREAM VEG: (N) A (M) V
LB SHP: (U) V S O — RB SHP: (U) V S O
TEXTURE: (F) G C B R A — TEXTURE: (F) G C B R A
RIP VEG: N (G) (S) C D M W — RIP VEG: N (G) (S) C D M W
STAGE: INIT (SHR) PS YF MF NA — STAGE: INIT (SHR) PS YF MF NA

C	NID MAP #	NID #	TYPE	HT/LG (m)	PHOTO	COMMENTS	UTM
					R__ F__		
					R__ F__		

FISH COLLECTION FORM

☐ LAKE ☑ STREAM ☐ WETLAND

GAZETTED NAME: Forpie C
WATERSHED CODE: 180374000952009190091000
SITE CARD ATTACHED: ☑Y ☐N
REACH: 11
DATE: 1999 08 24 AGENCY: C016 CREW: MD DV ☐ RE-SAMPLE

SITE	NID MAP					METHOD	NO.			COND.	COMMENTS
50	93K 031					EF	9	50		C	

FISH SUMMARY

SITE	METHOD		SPECIES							COMMENTS
50	EF 1		NFC			0				

NET / TRAP SPECIFICATIONS

GEAR SPECIFICATIONS

C

ELECTROFISHER SPECIFICATIONS

50	ET	1	11.00	11.50	175	200		0	500				

COMMENTS

HABITAT QUALITY

FSZ ☐

PHOTO DOCUMENTATION

ROLL #		FOCUS	DIR	COMMENTS
DP3	3	64	V	11.25
DP3	4	64	D	11.26

WILDLIFE

C	HOUR	WILDLIFE OBSERVATIONS	C	HOUR	WILDLIFE OBSERVATIONS

COMMENTS

NET / TRAP SPECIFICATIONS

GEAR SPECIFICATIONS

C

ELECTROFISHER SPECIFICATIONS

49	ET	1	12.10	12.50	152	122?		0	500	60	4	30	10.3

COMMENTS

HABITAT QUALITY

FSZ ☐

PHOTO DOCUMENTATION

ROLL #		FOCUS	DIR	COMMENTS
DP3				
DP3			D	

WILDLIFE

C	HOUR	WILDLIFE OBSERVATIONS	C	HOUR	WILDLIFE OBSERVATIONS

COMMENTS

52

SITE CARD

STREAM NAME: Unnamed | local:
WATERSHED CODE:
ILP MAP #: [illegible] | ILP #: 31014 | NID MAP #: [illegible] | NID #:
REACH #: 1 | SITE #: S1 | FIELD UTM: | SITE LG: [illegible] | ACCESS: [illegible]
DATE: [illegible] | TIME: [illegible] | AGENCY: C016 | CREW: HJ JV | FISH FORM: Y ☐ N ☒

CHANNEL	mthd						GRADIENT %
CHANNEL WIDTH (m)	[illegible]						
WETTED WIDTH (m)							
RES. POOL DEPTH (m)							

W_b Dp (m): [illegible] | STAGE: L M H | No Vis. Ch. ☐ | Dry/Int. ☐ | DW ☐ | Tribs. ☐

WATER: EMS | TEMP °C | pH | FLD SNS | RED # | COND μS/cm | TURB: T M L C

MORPHOLOGY: BED MATERIAL: Dominant: F | Subdom: | D95 (cm): [illegible] | D (cm): .01 | Morph: W

DISTURBANCE INDICATORS: O1 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN: TM ME IM IR SI ST
ISLANDS: N O I F S AN
BARS: N SIDE DIAG MID SPAN BR
COUPLING: DC PC CO
CONFINEMENT: EN CO FC OC UN N/A

COVER: Type: SWD LWD B U DP OV IV | AMT | LOC | Total
CROWN CLOSURE: 0 1 2 3 4 5 (0, 1-20%, 21-40%, 41-70%, 71-90%, >90%)
LWD FNC: N F A | DIST: C E
INSTREAM VEG: N A M V
LB SHP: U V S O | RB SHP: U V S O
TEXTURE: F G C B R A | TEXTURE: F G C B R A
RIP VEG: N G S C D M W | RIP VEG: N G S C D M W
STAGE: INIT SHR PS YF MF NA | STAGE: INIT SHR PS YF MF NA

FEATURES: C | NID MAP # | NID # | TYPE | HT | LG (m) | PHOTO | COMMENTS | UTM
R___ F___
R___ F___

SITE CARD

STREAM NAME: Unnamed | local:
WATERSHED CODE:
ILP MAP #: [illegible] | ILP #: 31014 | NID MAP #: [illegible] | NID #:
REACH #: 2 | SITE #: S2 | FIELD UTM: | SITE LG: 170 | ACCESS: [illegible]
DATE: [illegible] | TIME: [illegible] | AGENCY: [illegible] | CREW: HJ JV | FISH FORM: Y ☐ N ☒

CHANNEL	mthd						GRADIENT %
CHANNEL WIDTH (m)	[illegible]	7	10.4	[illegible]			2 2
WETTED WIDTH (m)							2 2
RES. POOL DEPTH (m)							

W_b Dp (m): [illegible] | STAGE: L M H | No Vis. Ch. ☐ | Dry/Int. ☐ | DW ☐ | Tribs. ☐

WATER: EMS | TEMP °C | pH | FLD SNS | RED # | COND μS/cm | TURB: T M L C

MORPHOLOGY: BED MATERIAL: Dominant: C | Subdom: [illegible] | D95 (cm): 12 | D (cm): .01 | Morph: RP

DISTURBANCE INDICATORS: O1 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN: TM ME IM IR SI ST
ISLANDS: N O I F S AN
BARS: N SIDE DIAG MID SPAN BR
COUPLING: DC PC CO
CONFINEMENT: EN CO FC OC UN N/A

COVER: Type: SWD LWD B U DP OV IV | AMT | LOC | Total
CROWN CLOSURE: 0 1 2 3 4 5 (0, 1-20%, 21-40%, 41-70%, 71-90%, >90%)
LWD FNC: N F A | DIST: C E
INSTREAM VEG: N A M V
LB SHP: U V S O | RB SHP: U V S O
TEXTURE: F G C B R A | TEXTURE: F G C B R A
RIP VEG: N G S C D M W | RIP VEG: N G S C D M W
STAGE: INIT SHR PS YF MF NA | STAGE: INIT SHR PS YF MF NA

FEATURES: C | NID MAP # | NID # | TYPE | HT | LG (m) | PHOTO | COMMENTS | UTM
R___ F___
R___ F___
R___ F___
R___ F___

WATERSHED CODE:
ILP MAP #: [illegible] | ILP #: 3105 | NID MAP #: [illegible] | NID #:
REACH #: 1 | SITE #: S3 | FIELD UTM: | SITE LG: [illegible] | ACCESS: [illegible]
DATE: [illegible] | TIME: [illegible] | AGENCY: [illegible] | CREW: HJ JV | FISH FORM: Y ☐ N ☒

CHANNEL	mthd						GRADIENT %
CHANNEL WIDTH (m)	HL	NVC					
WETTED WIDTH (m)	HS						
RES. POOL DEPTH (m)							

W_b Dp (m): | STAGE: L M H | No Vis. Ch. ☒ | Dry/Int. ☐ | DW ☐ | Tribs. ☐

WATER: EMS | TEMP °C | pH | FLD SNS | RED # | COND μS/cm | TURB: T M L C

MORPHOLOGY: BED MATERIAL: Dominant: F | Subdom: | D95 (cm): | D (cm): | Morph:

DISTURBANCE INDICATORS: O1 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN: TM ME IM IR SI ST
ISLANDS: N O I F S AN
BARS: N SIDE DIAG MID SPAN BR
COUPLING: DC PC CO
CONFINEMENT: EN CO FC OC UN N/A

COVER: Type: SWD LWD B U DP OV IV | AMT | LOC | Total
CROWN CLOSURE: 0 1 2 3 4 5 (0, 1-20%, 21-40%, 41-70%, 71-90%, >90%)
LWD FNC: N F A | DIST: C E
INSTREAM VEG: N A M V
LB SHP: U V S O | RB SHP: U V S O
TEXTURE: F G C B R A | TEXTURE: F G C B R A
RIP VEG: N G S C D M W | RIP VEG: N G S C D M W
STAGE: INIT SHR PS YF MF NA | STAGE: INIT SHR PS YF MF NA

FEATURES: C | NID MAP # | NID # | TYPE | HT | LG (m) | PHOTO | COMMENTS | UTM
R___ F___
R___ F___
R___ F___
R___ F___

STREAM NAME: Unnamed
WATERSHED CODE:
ILP MAP #: [illegible] | ILP #: 31016 | NID MAP #: [illegible] | NID #:
REACH #: 2 | SITE #: S4 | FIELD UTM: | SITE LG: [illegible] | ACCESS: [illegible]
DATE: [illegible] | TIME: 1140 | AGENCY: [illegible] | CREW: HJ JV | FISH FORM: Y ☐ N ☒

CHANNEL	mthd						GRADIENT %
CHANNEL WIDTH (m)	[illegible]	7	9	5.0	[illegible]	[illegible]	3
WETTED WIDTH (m)							3
RES. POOL DEPTH (m)							[illegible]

W_b Dp (m): [illegible] | STAGE: L M H | No Vis. Ch. ☐ | Dry/Int. ☐ | DW ☐ | Tribs. ☐

WATER: EMS | TEMP °C | pH | FLD SNS | RED # | COND μS/cm | TURB: T M L C

MORPHOLOGY: BED MATERIAL: Dominant: C | Subdom: [illegible] | D95 (cm): 12 | D (cm): 1 | Morph: [illegible]

DISTURBANCE INDICATORS: O1 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN: TM ME IM IR SI ST
ISLANDS: N O I F S AN
BARS: N SIDE DIAG MID SPAN BR
COUPLING: DC PC CO
CONFINEMENT: EN CO FC OC UN N/A

COVER: Type: SWD LWD B U DP OV IV | AMT | LOC | Total: N
CROWN CLOSURE: 0 1 2 3 4 5 (0, 1-20%, 21-40%, 41-70%, 71-90%, >90%)
LWD FNC: N F A | DIST: C E
INSTREAM VEG: N A M V
LB SHP: U V S O | RB SHP: U V S O
TEXTURE: F G C B R A | TEXTURE: F G C B R A
RIP VEG: N G S C D M W | RIP VEG: N G S C D M W
STAGE: INIT SHR PS YF MF NA | STAGE: INIT SHR PS YF MF NA

FEATURES: C | NID MAP # | NID # | TYPE | HT | LG (m) | PHOTO | COMMENTS | UTM
R___ F___
R___ F___
R___ F___

HABITAT QUALITY

[illegible] ... (emergent?) [illegible] ... [illegible] ... No signs of [illegible] ... riffles

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PHOTO DOCUMENTATION

ROLL	FRAME	DIR	COMMENTS
0-3	20	[illegible]	[illegible]	11:48
0-3	21	[illegible]	[illegible]	11:50

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C [illegible]

[illegible]

(56)

HABITAT QUALITY

[illegible] of mussels, no [illegible] [illegible]

[illegible] fisheries [illegible].

[illegible]

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PHOTO DOCUMENTATION

ROLL	FRAME	DIR	COMMENTS
0-3	22	[illegible]	[illegible]	12:[illegible]

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C [illegible]

[illegible]

(D)

HABITAT QUALITY

[illegible]

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PHOTO DOCUMENTATION

ROLL	FRAME	DIR	COMMENTS
0-3	18	[illegible]	U	11:05
0-3	19	[illegible]	[illegible]	11:07

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C [illegible]

– [illegible] mouth of [illegible]

(56)

HABITAT QUALITY

[illegible]

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PHOTO DOCUMENTATION

ROLL	FRAME	DIR	COMMENTS
0-3	16	ST	UP	11:01
0-3	17	ST	DN	11:02

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C [illegible]

[illegible] sampling [illegible] → [illegible] in the lower part [illegible]

NCD (56) from mouth.

Rev. Apr. 1988

SITE CARD

STREAM NAME (gaz)	Unnamed	(local)			
WATERSHED CODE					
TR MAP	93K.031	ILP	31019	NID MAP	93K.031
REACH	1 -	SITE	55	SITE LG	200
DATE	2000/08/24	TIME	12:00	AGENCY	C016
CREW	MJ, DV	ACCESS	FT	FISH FORM	Y ☑ N ☐

CHANNEL	mthd					
CHANNEL WIDTH (m)	MS	.6	.9	0.5	1.1	0.8
WETTED WIDTH (m)	MS			.1	1.0	
RES. POOL DEPTH (m)	MS			.05		
W. Dp (m)	.1	.05	-	MS		

STAGE: Ⓛ M H · Dry/Int. ☑

GRADIENT: 2 · 2 2 · 3 2

EMS · TEMP °C · pH · REQ # · COND µS/cm · TURB: T M L Ⓒ · FLD SNS: -

BED MATERIAL: Dominant G · Subdom F · D95 (cm) 8 · D (cm) 1 · Morph RP

COVER Total: M

Type	SWD	LWD	B	U	DP	OV	IV
AMT	T	T	-	S	D	S	T
LOC							

CROWN CLOSURE: 0 · 1 · 2 · ③ · 4 · 5

LWD FNC: N Ⓕ A · DIST: C Ⓔ · INSTREAM VEG: N Ⓐ M V

LB SHP: Ⓤ V S O · RB SHP: U Ⓥ S O

TEXTURE: Ⓕ G C B R A · TEXTURE: Ⓕ G C B R A

RIP VEG: N G Ⓢ C D M W · RIP VEG: N G Ⓢ C D M W

STAGE: INIT ⓈHR PS YF MF NA · STAGE: INIT ⓈHR PS YF MF NA

DISTURBANCE INDICATORS: O1 B1 B2 B3 D1 D2 D3 · C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

PATTERN: TM ME IM IR Ⓢ︎I ST · ISLANDS: Ⓝ O I F S AN · BARS: N ⓈIDE DIAG MID SPAN BR · COUPLING: ⒹC PC CO · CONFINEMENT: EN CO FC OC ⓊN N/A

C	NID MAP #	NID #	TYPE	HT / LG (m)		PHOTO	COMMENTS	UTM
						R__ F__		
						R__ F__		

FISH COLLECTION FORM

☐ LAKE ☑ STREAM ☐ WETLAND

STREAM NAME					
WATERSHED CODE					
NID MAP	93K.031	ILP	31019	SITE CARD ATTACHED	☑Y ☐N
DATE	2000/08/24	AGENCY	C016	CREW	MJ, DV

☐ RE-SAMPLE

SITE / METHOD

SITE	NID MAP									
55	93K.031					7711	9	50	C	

FISH SUMMARY

SITE	METHOD		SPECIES			#				
55	EF	1	NFC			0				

SITE CARD

STREAM NAME (gaz)	Unnamed	(local)			
WATERSHED CODE					
TR MAP	93K.031	ILP	31021	NID MAP	93K.031
REACH	1 -	SITE	56	SITE LG	30
DATE	2000/08/24	TIME	10:30	AGENCY	C016
CREW	MJ, DV	ACCESS	FT	FISH FORM	Y ☐ N ☑

CHANNEL	mthd					
CHANNEL WIDTH (m)	MS	0.2	0.6	0.5	0.2	0.3
WETTED WIDTH (m)	MS	?				
RES. POOL DEPTH (m)	MS	?				
W. Dp (m)	?	?		MS		

STAGE: L M H · Dry/Int. ☑

GRADIENT: 4 · 4 4 · 3 2

TEMP 9 °C · pH 9.8 · COND 50 µS/cm · TURB: T M L C · FLD SNS: -

BED MATERIAL: Dominant C · Subdom F · D95 (cm) 9 · D (cm) .01 · Morph CP

COVER Total: ?

Type	SWD	LWD	B	U	DP	OV	IV
AMT							
LOC							

CROWN CLOSURE: 0 · 1 · ② · 3 · 4 · 5

LWD FNC: N Ⓕ Ⓐ · DIST: C Ⓔ · INSTREAM VEG: N A Ⓜ V

LB SHP: Ⓤ V S O · RB SHP: U Ⓥ S O

TEXTURE: Ⓕ Ⓖ Ⓒ B R A · TEXTURE: Ⓕ Ⓖ Ⓒ B R A

RIP VEG: N Ⓖ Ⓢ C D M W · RIP VEG: N Ⓖ Ⓢ C D M W

STAGE: INIT ⓈHR PS YF MF NA · STAGE: INIT ⓈHR PS YF MF NA

DISTURBANCE INDICATORS: O1 B1 B2 B3 D1 D2 D3 · C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

PATTERN: TM ME IM ⒾR SI ST · ISLANDS: Ⓝ O I F S AN · BARS: Ⓝ SIDE DIAG MID SPAN BR · COUPLING: ⒹC PC CO · CONFINEMENT: EN CO FC OC ⓊN N/A

C	NID MAP #	NID #	TYPE	HT / LG (m)		PHOTO	COMMENTS	UTM
						R__ F__		
						R__ F__		
						R__ F__		
						R__ F__		

SITE CARD

STREAM NAME (gaz)	New Site	(local)	TAMZ		
WATERSHED CODE	180-... -1-1-5-13-FG1C0				
TR MAP		ILP		NID MAP	
REACH	3 -	SITE	57	SITE LG	60
DATE	2000/08/11	TIME	15:45	AGENCY	C016
CREW	SR, MJ	ACCESS	FT	FISH FORM	Y ☒ N ☐

CHANNEL	mthd						
CHANNEL WIDTH (m)	MS	1.9	1.7	2.2	2.1	1.6	2.4
WETTED WIDTH (m)	MS	0.8	1.2	1.4	0.7	0.9	1.8
RES. POOL DEPTH (m)	MS	.15	.1	.18	.14	.12	
W. Dp (m)	.2	.3	.2	MS			

STAGE: L Ⓜ H

GRADIENT %: N · 5 5 · 6 4

TEMP 10 °C · pH 7.6 · COND NA µS/cm · TURB: T M L Ⓒ · FLD SNS: None

BED MATERIAL: Dominant G · Subdom G · D95 (cm) 25 · D (cm) 5 · Morph CP

COVER Total: M

Type	SWD	LWD	B	U	DP	OV	IV
AMT	T	T	S	T	D	T	N
LOC							

CROWN CLOSURE: 0 · 1 · ② · 3 · 4 · 5

LWD FNC: N Ⓕ A · DIST: C Ⓔ · INSTREAM VEG: Ⓝ A M V

LB SHP: U Ⓥ S O · RB SHP: Ⓤ V S O

TEXTURE: Ⓕ Ⓖ Ⓒ B R A · TEXTURE: Ⓕ Ⓖ Ⓒ B R A

RIP VEG: N G Ⓢ C D M W · RIP VEG: N G Ⓢ C D M W

STAGE: INIT SHR PS YF MF ⓃA · STAGE: INIT SHR PS YF MF ⓃA

DISTURBANCE INDICATORS: O1 B1 B2 B3 D1 D2 D3 · C1 C2 C3 C4 C5 S1 Ⓢ2 S3 S4 S5

PATTERN: TM ME IM ⒾR SI ST · ISLANDS: Ⓝ O I F S AN · BARS: N ⓈIDE DIAG MID SPAN BR · COUPLING: ⒹC PC CO · CONFINEMENT: EN CO FC ⓄC UN N/A

C	NID MAP #	NID #	TYPE	HT / LG (m)		PHOTO	COMMENTS	UTM
						R__ F__		
						R__ F__		
						R__ F__		
						R__ F__		

HABITAT QUALITY

- Good R[illegible] rearing [illegible] reasonable good habitat [illegible] boulders/cobbles
- No sig. spawning habitat, [illegible] suitable gravel [illegible] = [illegible]
  [illegible]
  wetlands [illegible] [illegible] 7 [illegible]

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PHOTO DOCUMENTATION

ROLL	#	FOCUS	DIR	COMMENTS
OP1	9	54	U	
OP1	16	57	D	

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C
- Site from TAMZA mouth
- Overall reasonable [illegible] fish habitat, but [illegible] [illegible]
- [illegible] [illegible] [illegible] 14 - [illegible]

(53)

HABITAT QUALITY

Very [illegible] habitat [illegible] 56/60
[illegible] very poor [illegible] flooding [illegible] [illegible] [illegible] with mosses. At places [illegible] [illegible] u/s flow. Deeper [illegible] [illegible] [illegible] the [illegible] wetlands [illegible] covered pools. [illegible]
No spawning, no overwintering [illegible] [illegible] [illegible] [illegible] [illegible]

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PHOTO DOCUMENTATION

ROLL	#	FOCUS	DIR	COMMENTS
OP3	1	54	U	10.46
OP3	2	54	D	10.47

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C
[illegible] [illegible] to 55m u/s from the rd.
Channel [illegible] - 0.6
[illegible]
[illegible]

(56)

NET / TRAP SPECIFICATIONS

GEAR SPECIFICATIONS

ELECTROFISHER SPECIFICATIONS

55	[illegible]	1	12.00	12.35	172	180	0.8	0	600	60	4	SP	[illegible]

COMMENTS

sampled only ~ 50m u/s from rd. [illegible] [illegible] [illegible] no [illegible] [illegible] deposit, almost no flooding
sampled [illegible] [illegible]

HABITAT QUALITY

[illegible] [illegible] [illegible] [illegible] pools [illegible] well developed [illegible] [illegible] [illegible] [illegible] [illegible] places filled [illegible]
[illegible] plenty of gravel [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible]

FSZ ☐

PHOTO DOCUMENTATION

ROLL	#	FOCUS	DIR	COMMENTS
~~OP3~~	~~4~~	~~54~~	~~U~~	~~[illegible]~~
OP3	5	54	U	[illegible]
OP3	6	54	D	11.03

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

(54)

COMMENTS

C
[illegible]
[illegible] to sample [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible]
Walk for the mouth, u/s to the 1102m u/s from the rd. [illegible]
Picture 15 the [illegible] (OP3) - [illegible] swamp with [illegible] [illegible]
Not interconnected pools - [illegible] [illegible] [illegible] [illegible]
but occasionally [illegible] [illegible] [illegible] [illegible]
developed [illegible] [illegible] [illegible]

FISH COLLECTION FORM

New Site — TAMZ — ☐ LAKE ☒ STREAM ☐ WETLAND

Watershed code: 46-1951-600-5800

☒ Y ☐ N

Reach: 3 -

Date: 2000 07 11 — Agency: C016 — Crew: SP MS — ☐ RE-SAMPLE

SITE / METHOD

57	931.050				EF	1	10	N/A

FISH SUMMARY

57	EF	1	1	RB	J	1	72	72	K

SITE CARD

STREAM NAME (gaz) — (local) TAMZ

WATERSHED CODE 46-1951-600-5800

NID MAP # 931.050 — NID #

REACH 4 - SITE 58 — SITE LG 200 GE — ACCESS TM

DATE 2000 07 11 — TIME 1615 — AGENCY C016 — CREW SP MS — FISH FORM Y☒ N☐

CHANNEL	mthd							GRADIENT %
CHANNEL WIDTH (m)	MS	1.2	1.4	1.1	1.5	0.9	1.3	6 %
WETTED WIDTH (m)	↓	1.1	0.7	1.0	0.7	0.9	1.2	
RES. POOL DEPTH (m)	↓	.08	.1	.05	.10	.07		

Wb Dp (m) .2 .2 .2 — mthd MS — STAGE L (M) H — No Vis. Ch. ☐ Dry/Int. ☐ DW ☐ Tribs. ☐

WATER: EMS — TEMP 10 °C — pH 7.6 — REQ # — COND. N/A µS/cm — TURB. T M L (C)

FLD SNS None

MORPHOLOGY: BED MATERIAL Dominant G — Subdom. — D95 (cm) 8 — D (cm) 3 — Morph RP

COVER: Total T

Type	SWD	LWD	B	U	DP	OV	IV
AMT	T	T	N	D	T	S	N
LOC							

CROWN CLOSURE: 0 (1) 2 3 4 5

LWD FNC N (F) A — DIST C (E) — INSTREAM VEG (N) A M V

LB SHP U V (S) O — RB SHP (U) V S O

TEXTURE (F) (G) C B R A — TEXTURE (F) (G) C B R A

RIP VEG N G (S) C D M W — RIP VEG N G (S) C D M W

STAGE INIT SHR PS YF MF (NA) — STAGE INIT SHR PS YF MF (NA)

PATTERN TM ME IM (IR) SI ST

ISLANDS N (O) I F S AN

BARS N (SIDE) DIAG (MID) SPAN BR

COUPLING (DC) PC CO

CONFINEMENT EN CO FC OC (UN) N/A

FEATURES: C | NID MAP # | NID # | TYPE | HT/LG (m) | mthd | PHOTO R__ F__ | COMMENTS | UTM

FISH COLLECTION FORM

TAMZ — ☐ LAKE ☒ STREAM ☐ WETLAND

Watershed code: 46-1951-600-5800

☒ Y ☐ N

Reach: 4 -

Date: 2000 07 11 — Agency: C016 — Crew: SP MS — ☐ RE-SAMPLE

SITE / METHOD

58	931.050		EF	1	10	C

FISH SUMMARY

58	EF	1	1	RB	J	1	82	82	K

SITE CARD

STREAM NAME (gaz) Stream #2 ... — (local) TAMZ

WATERSHED CODE 46-1951-600-5800

NID MAP # 931.050 — NID #

REACH 5A - SITE 59 — SITE LG 60 URB — ACCESS VH

DATE 2000 07 11 — TIME 1820 — AGENCY C016 — CREW SP MS — FISH FORM Y☒ N☐

CHANNEL	mthd							GRADIENT %
CHANNEL WIDTH (m)	MS	.4	.6	.4	.5	.5	.3	AL
WETTED WIDTH (m)	↓	.3	.5	.3	.4	.5	.3	4 %
RES. POOL DEPTH (m)	↓	.08	.05	.1	.1	.07	.07	-1

Wb Dp (m) .2 .2 .1 — mthd M — STAGE L (M) H — No Vis. Ch. ☐ Dry/Int. ☐ DW ☐ Tribs. ☐

WATER: EMS — TEMP 11 °C — pH 7.1 — REQ # — COND. — µS/cm — TURB. T M L (C)

FLD SNS NONE

MORPHOLOGY: BED MATERIAL Dominant F — Subdom. C — D95 (cm) 16 — D (cm) 1 — Morph CP

COVER: Total T

Type	SWD	LWD	B	U	DP	OV	IV
AMT	T	T	N	S	D	S	N
LOC							

CROWN CLOSURE: 0 (1) 2 3 4 5

LWD FNC N (F) A — DIST C (E) — INSTREAM VEG (N) A M V

LB SHP (U) V S O — RB SHP (U) V S O

TEXTURE (F) G C B R A — TEXTURE (F) G C B R A

RIP VEG N G S (C) D M W — RIP VEG N G S (C) D M W

STAGE (INIT) SHR PS YF (MF) NA — STAGE (INIT) SHR PS YF (MF) NA

DISTURBANCE INDICATORS: O1 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 (S2) S3 S4 S5

PATTERN TM ME IM (IR) SI ST

ISLANDS (N) O I F S AN

BARS (N) SIDE DIAG MID SPAN BR

COUPLING (DC) PC CO

CONFINEMENT EN CO FC (OC) UN N/A

FEATURES: C | NID MAP # | NID # | TYPE | HT/LG (m) | mthd | PHOTO R__ F__ | COMMENTS | UTM

HABITAT QUALITY

FSZ [ ]

PHOTO DOCUMENTATION

ROLL	FRAME	FOCUS	DIR.	COMMENTS
OP1	15	ST	JN	

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C

1

C

NET / TRAP SPECIFICATIONS

GEAR SPECIFICATIONS

C

ELECTROFISHER SPECIFICATIONS

58	Ex1	1	1615	1625	104	80	0.8	0	800	80	6	5%	8%

COMMENTS

HABITAT QUALITY

FSZ [ ]

PHOTO DOCUMENTATION

ROLL	FRAME	FOCUS	DIR.	COMMENTS
OP1	12	ST	U	
OP1	11	ST	D	

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C

NET / TRAP SPECIFICATIONS

GEAR SPECIFICATIONS

C

88 72

ELECTROFISHER SPECIFICATIONS

57	Ex1	1	1545	1550	74	66	1.1	0	700	80	6	5%	10%

COMMENTS

CARD

FISH COLLECTION FORM

Stream name: Stream #7 (TAMZ) | TAMZ | ☐ LAKE ☒ STREAM ☐ WETLAND

Watershed code: 4[illegible]

☒ Y ☐ N

Reach: 5 7 -

Date: 2009 09 11 | C016 | 5P, MS | ☐ RE-SAMPLE

SITE / METHOD

59	93.050				EF 1	

FISH SUMMARY

59	EF 1	1	NFC		0	

SITE CARD

STREAM NAME	(local) TAMZA
WATERSHED CODE	
NID MAP #	93.[illegible]
REACH #	2 -
SITE #	60
SITE LG	70 m [illegible]
ACCESS	V H
DATE	2009 09 11
TIME	18:00
AGENCY	C016
CREW	SP, MS
FISH FORM	Y ☐ N ☐

CHANNEL	mthd						GRADIENT %
CHANNEL WIDTH (m)	MS	0.9	0.7	0.4	0.9	0.3 0.5	AL
WETTED WIDTH (m)		0.6	0.7	0.4	0.8	0.2 0.5	2 4
RES. POOL DEPTH (m)		.01	.03	.07	.07	.01	
W. Dp (m)	0.1, 0.1, 0.1	STAGE L (M) H					

No Vis. Ch. ☐ DW ☐ Dry/Int. ☐ Tribs. ☐

WATER: TEMP 10 °C; pH 7.8; COND 80 µS/cm; TURB T M L (C)

MORPHOLOGY: BED MATERIAL Dominant F, Subdom G; D95 (cm) 3; D (cm) 2; Morph RP

COVER	SWD	LWD	B	U	DP	OV	IV
AMT	T	T	N	T	D	S	N

Total: T

CROWN CLOSURE: 0 1 2 (3) 4 5

- LWD FNC: N (F) A — DIST: C (E)
- INSTREAM VEG: (N) A M V
- LB SHP: U V (S) O — RB SHP: U V (S) O
- TEXTURE: (F) (G) C B R A — TEXTURE: (F) (G) C B R A
- RIP VEG: N G (S) C D M W — RIP VEG: N G (S) C D M W
- STAGE: INIT SHR PS YF MF (NA) — STAGE: INIT SHR PS YF MF (NA)
- DISTURBANCE INDICATORS: O1 B1 B2 B3 D1 D2 D3; C1 C2 C3 (C4) C5 S1 S2 S3 S4 (S5)
- PATTERN: TM ME IM (IR) SI ST
- ISLANDS: (N) O I F S AN
- BARS: N (SIDE) DIAG MID SPAN BR
- COUPLING: (DC) PC CO
- CONFINEMENT: EN CO FC OC (UN) N/A

FEATURES: C | NID MAP # | NID # | TYPE | HT | LG | PHOTO R__ F__ | COMMENTS | UTM

FISH COLLECTION FORM

Stream name: TAMZA | ☐ LAKE ☒ STREAM ☐ WETLAND

☒ Y ☐ N

Reach: 2 -

Date: 2009 09 11 | C016 | SP, MS | ☐ RE-SAMPLE

SITE / METHOD

60	93.050			EF 1	10	80	C

FISH SUMMARY

60	EF 1	1	NFC		0	

SITE CARD

STREAM NAME	Atlas Stream #1 (local) ~~TAMZ~~ TAMZES
WATERSHED CODE	
NID MAP #	93.050
REACH #	1B -
SITE #	61
SITE LG	100 m
ACCESS	[illegible]
DATE	2009 09 11
TIME	18:50
AGENCY	C016
CREW	SP, MS
FISH FORM	Y ☐ N ☐

CHANNEL	mthd						GRADIENT %
CHANNEL WIDTH (m)	MS	1.5	1.4	1.3	1.5	1.3 1.4	AL
WETTED WIDTH (m)		1.1	0.9	0.7	1.4	1.5 1.3	1 1
RES. POOL DEPTH (m)		.2	.21	.18	.19	.17	2 1
W. Dp (m)	.2, .2, .3	STAGE L (M) H					

No Vis. Ch. ☐ DW ☐ Dry/Int. ☐ Tribs. ☐

WATER: TEMP 10 °C; pH 7.6; COND – µS/cm; TURB T M L (C)

MORPHOLOGY: BED MATERIAL Dominant F, Subdom G; D95 (cm) 10; D (cm) 0.1; Morph RP

COVER	SWD	LWD	B	U	DP	OV	IV
AMT	T	T	N	S	D	S	N

Total: A

CROWN CLOSURE: 0 1 2 (3) 4 5

- LWD FNC: N (F) A — DIST: C (E)
- INSTREAM VEG: (N) A M V
- LB SHP: (U) V S O — RB SHP: (U) V S O
- TEXTURE: (F) G C B R A — TEXTURE: (F) G C B R A
- RIP VEG: N G (S) C D M W — RIP VEG: N G (S) C D M W
- STAGE: INIT SHR PS YF MF (NA) — STAGE: INIT SHR PS YF MF NA
- DISTURBANCE INDICATORS: O1 B1 B2 B3 D1 D2 D3; C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
- PATTERN: TM ME IM (IR) SI ST
- ISLANDS: (N) O I F S AN
- BARS: (N) SIDE DIAG MID SPAN BR
- COUPLING: (DC) PC CO
- CONFINEMENT: EN CO FC OC (UN) N/A

FEATURES: C | NID MAP # | NID # | TYPE | HT | LG | PHOTO R__ F__ | COMMENTS | UTM

HABITAT QUALITY

- Poor RB [illegible] deep [illegible]
  [illegible] spawning [illegible]
- [illegible] [illegible] in [illegible]

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	FRAME	FOCAL	DIR	COMMENTS
OP1	16	57	U	

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C Sites [illegible] of stream #2 [illegible], deep (up to 70cm), [illegible], [illegible] channel)
Caught RB 700m u/s from stream #3
- [illegible] [illegible] [illegible] u/s [illegible] quickly [illegible]

NFC - [illegible]

NET / TRAP SPECIFICATIONS

GEAR SPECIFICATIONS

ELECTROFISHER SPECIFICATIONS

60	Grill	1	1800	1810	178	700	0.7	0	700	60	6	[illegible]	[illegible]

COMMENTS

No suitable RB habitat

HABITAT QUALITY

- V. poor RB [illegible] [illegible] over [illegible] deposited silting gravels from road construction
- too shallow/no pools for [illegible], high
  not enough flow for spawning
- ext. marginal high, [illegible] 2nd sampling NFC

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	FRAME	FOCAL	DIR	COMMENTS
OP1	13	57	U	photo showing new water input since road construction (1/2 flow)
OP1	14	57	U	

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C silt 50m d/s from road xing
Stream [illegible], [illegible]
[illegible] ditch runoff (u/s [illegible])
[illegible] road built!
1 [illegible] gravel [illegible] from construction [illegible]
[illegible] has changed majorly since 1998 - [illegible]
[illegible] on u/s [illegible]
3 [illegible] from CV outflow

C - [illegible] [illegible] ditch [illegible]
fish [illegible] [illegible]
[illegible]
2 [illegible]

Rev. Apr. 1998

GEAR SPECIFICATIONS

ELECTROFISHER SPECIFICATIONS

59	Grill	1	1830	1841	196	50	0.6	0	700	80	6	[illegible]	[illegible]

COMMENTS

- No suitable fish habitat

Rev. Apr. 1998 No 020162 CARD

FISH COLLECTION FORM

Gree... | TAMZB | ☐ LAKE ☑ STREAM ☐ WETLAND

☑ Y ☐ N

2 | 1 -

2009/09/10 | YY MM DD | COIG | SR, MG | ☐ RE-SAMPLE

SITE / METHOD

61	93I.030				EM 1	10	-	C

FISH SUMMARY

61	EM 1		NFC		0	

COLLEYMOUNT

SITE CARD

STREAM NAME (gaz) Unnamed (local)

WATERSHED CODE 460-9243-00-909-00

ILP MAP # | ILP # | NID MAP # 93I.070 | NID #

REACH # 2 - | SITE # 62 | FIELD UTM 9 1699774 6004194 GPS | SITE LG 100, GE | ACCESS V2

DATE 2009/09/13 | TIME 17:10 | AGENCY COIG | CREW SR, MG | FISH FORM Y☒ N

CHANNEL	mthd							GRADIENT %	
CHANNEL WIDTH (m)	MS	1.6	1.5	1.7	1.8	1.8	1.5	AL	
WETTED WIDTH (m)	↓	0	0	0	0	1.8	1.5	3	6
RES. POOL DEPTH (m)	↓	.31	.16	.19	.27			3	5

W_B Dp (m) .3, .3, .3, NS | STAGE (L) M H | No Vis. Ch. ☐ DW ☐ | Dry/Int. ☒ Tribs. ☐ | 1

EMS | TEMP 5.0 °C | pH 8.4 | REQ # | COND 100 µS/cm | TURB T M L (C)

FLD SNS N

BED MATERIAL Dominant C | Subdom G | D95 (cm) 40 | D (cm) 7 | Morph RP

COVER

COVER Total T

Type	SWD	LWD	B	U	DP	OV	IV
AMT	T	+	T	N	D	T	N
LOC	P	C	P		P	P	

LWD FNC N (F) A | DIST C (E)

LB SHP U (V) S O | RB SHP U (V) S O

TEXTURE (F) (G) (C) B R A | TEXTURE (F) (G) (C) B R A

RIP VEG N G S (C) D M W | RIP VEG N G S (C) D M W

STAGE INIT SHR PS YF (MF) NA | STAGE INIT SHR PS YF (MF) NA

CROWN CLOSURE: 0 (0) · 1 (1-20%) · (2) (21-40%) · 3 (41-70%) · 4 (71-90%) · 5 (>90%)

INSTREAM VEG N A (M) V

MORPHOLOGY

DISTURBANCE INDICATORS: O1 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

PATTERN TM ME IM IR (SI) ST

ISLANDS (N) O I F S AN

BARS N (SIDE) DIAG MID SPAN BR

COUPLING DC PC (CO)

CONFINEMENT EN (CO) FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)		PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		

FISH COLLECTION FORM

☐ LAKE ☑ STREAM ☐ WETLAND

460-9243-00-909-00

☑ Y ☐ N

2 -

2009/09/13 | YY MM DD | COIG | SR, MG | ☒ RE-SAMPLE

SITE / METHOD

62	93I.070		9 1699774 6004194 GPS	EI 1	5	30	C

FISH SUMMARY

62	EI 1		NFC		0

COLLEYMOUNT

SITE CARD

STREAM NAME (gaz) Unnamed (local)

WATERSHED CODE

ILP MAP # | ILP # 32 (=31.9km) | NID MAP # 93I.070 | NID #

REACH # 2 - | SITE # 63 | FIELD UTM 9 1697557 6007775 GPS | SITE LG 100, GI | ACCESS V2

DATE 2009/09/13 | TIME 17:00 | AGENCY COIG | CREW SR, MG | FISH FORM Y ☒

CHANNEL	mthd							GRADIENT %	
CHANNEL WIDTH (m)									
WETTED WIDTH (m)									
RES. POOL DEPTH (m)									

W_B Dp (m) | STAGE L M H | No Vis. Ch. ☒ DW ☐ | Dry/Int. ☐ Tribs. ☐

EMS | TEMP °C | pH | REQ # | COND µS/cm | TURB T M L C

FLD SNS

BED MATERIAL Dominant | Subdom | D95 (cm) | D (cm) | Morph

COVER

COVER Total

Type	SWD	LWD	B	U	DP	OV	IV
AMT							
LOC							

LWD FNC N F A | DIST C E

LB SHP U V S O | RB SHP U V S O

TEXTURE F G C B R A | TEXTURE F G C B R A

RIP VEG N G S C D M W | RIP VEG N G S C D M W

STAGE INIT SHR PS YF MF NA | STAGE INIT SHR PS YF MF NA

CROWN CLOSURE: 0 (0) · 1 (1-20%) · 2 (21-40%) · 3 (41-70%) · 4 (71-90%) · 5 (>90%)

INSTREAM VEG N A M V

MORPHOLOGY

DISTURBANCE INDICATORS: O1 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

PATTERN TM ME IM IR SI ST

ISLANDS N O I F S AN

BARS N SIDE DIAG MID SPAN BR

COUPLING DC PC CO

CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)		PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R F		

HABITAT QUALITY

NONE!

FSZ ☐

PHOTO DOCUMENTATION

ROLL	FRAME	PHOTO	DIR	COMMENTS
				NONE

WILDLIFE

GROUP	C	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C Site: [illegible] road X-ing
crosses at 31.9 km [illegible]
Nothing mapped on TRIM, no prior surveys
- [illegible] ditch drainage [illegible] has no [illegible] or any channel bed [illegible]

C - no channel [illegible] [illegible] dispersed [illegible] 20 m [illegible] from road.

NET / TRAP SPECIFICATIONS

GEAR SPECIFICATIONS

(blank)

ELECTROFISHER SPECIFICATIONS

62	EF	1	1	[illegible]	1724	751	100	1.6	0	700	30	6	SP	[illegible]

COMMENTS

(blank)

HABITAT QUALITY

[illegible handwriting]
- NC [illegible]
[illegible]

FSZ ☐

PHOTO DOCUMENTATION

ROLL	FRAME	PHOTO	DIR	COMMENTS
21	11	ST	D	[illegible]

WILDLIFE

GROUP	C	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C Site: [illegible] road X-ing
1999 [illegible] R.1
NC [illegible] R.5
NC [illegible] R.1
1 [illegible] all day except [illegible]

C NC [illegible]
- [illegible] large cobble, large channel

Rev. Apr. 1998

GEAR SPECIFICATIONS

(blank)

ELECTROFISHER SPECIFICATIONS

61	EF	1	1	1850	1915	236	174	1.4	0	700	60	6	58	[illegible]

COMMENTS

. No fish [illegible] PC [illegible]
. [illegible] d/s

Rev. Apr. 1998

№ 020163

CARD OF

FISH COLLECTION FORM

☐ LAKE ☑ STREAM ☐ WETLAND

3 | 36.9 | ☑Y ☐ N

? -

2009 10 13 | COLL | SR, MG | ☐ RE-SAMPLE

SITE / METHOD

Site	NID Map		UTM	Method			
64	931.020		9 688050 6002400 1683	EF 1	5	80	C

FISH SUMMARY

Site	Mthd						
64	EF 1	1	NFC		0		

Collermount

SITE CARD

STREAM NAME (gaz): | (local):

WATERSHED CODE:

ILP MAP #: | ILP #: 36.9 km | NID MAP #: 931.020 | NID #:

REACH #: ? - | SITE #: 64 | FIELD UTM: 9 688050 6002400 1683 | SITE LG: 110 GE | ACCESS: T2

DATE: 2009 10 13 | TIME: 1635 | AGENCY: COLL | CREW: SR, MG | FISH FORM: Y N

CHANNEL	mthd							GRADIENT %
CHANNEL WIDTH (m)	MS	7.0	6.4	0.7	0.5	0.8	0.7	4
WETTED WIDTH (m)		"	"	"	"	"	"	3 2
RES. POOL DEPTH (m)		.71	.16	.21	.08	.09	.06	2 2

W. Dp (m): .3, .4, .3 MS | STAGE: L M H | No Vis. Ch. ☐ Dry/Int. ☐ DW ☐ Tribs. ☐

Type	SWD	LWD	B	U	DP	OV	IV
AMT	T	T	N	N	D	T	S
LOC	P	P			P	P	P

COVER Total: T

CROWN CLOSURE: 0 1 (2) 3 4 5

LWD FNC: N (F) A | DIST: C (E) | INSTREAM VEG: N (A) (M) V

LB SHP: U (V) S O | RB SHP: U (V) S O

TEXTURE: (F) G C B R A | TEXTURE: (F) G C B R A

RIP VEG: N G S (C) D M W | RIP VEG: N G S (C) D M W

STAGE: INIT SHR PS YF (M) NA | STAGE: INIT SHR PS YF (M) NA

EMS: | TEMP: 5 °C | COND: 80 μS/cm | pH: 9.4 | TURB: T M L (C)

FLO SNS:

BED MATERIAL: Dominant: F | Subdom.: NA

D95 (cm): .01 | D (cm): .01 | Morph: RP

DISTURBANCE INDICATORS: O1 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

PATTERN: TM ME IM (IR) SI ST

ISLANDS: (N) O I F S AN

BARS: (N) SIDE DIAG MID SPAN BR

COUPLING: (DC) PC CO

CONFINEMENT: EN CO FC OC (UN) N/A

C | NID MAP # | NID # | TYPE | HT/LG (m) | PHOTO | COMMENTS | UTM

FISH COLLECTION FORM

Unnamed

☐ LAKE ☑ STREAM ☐ WETLAND

180-371-400-915-200-665-0061-50

931.020 | 70063 | ☑Y ☐ N

? - | ~~OZ~~ SUCK

2009 10 13 | COLL | SR, MG | ☐ RE-SAMPLE

SITE / METHOD

Site	NID Map		UTM	Method			
65	931.020		9 687135 6002312 1683	EF 1	50	70	C

FISH SUMMARY

Site	Mthd						
65	EF 1	1	NFC		0		

Collermount

SITE CARD

STREAM NAME (gaz): Rearing Cum 1998 | (local):

WATERSHED CODE: 180-371-400-915-200-665-0061-50

ILP MAP #: 931.020 | ILP #: 70063 | NID MAP #: 9 5 120 | NID #:

REACH #: 2 - | SITE #: 65 | FIELD UTM: 9 687135 6002312 1684 | SITE LG: 100 GC | ACCESS: V2

DATE: 2009 10 13 | TIME: 1610 | AGENCY: COLL | CREW: SR, MG | FISH FORM: Y N

CHANNEL	mthd							GRADIENT %
CHANNEL WIDTH (m)	MS	1.4	2.3	1.7	1.9	1.3	1.8	16
WETTED WIDTH (m)		0.9	1.1	1.0	1.4	0.6	0.7	7 4
RES. POOL DEPTH (m)	3	.43	.67	.08	.06	.11	.20	5 2

W. Dp (m): .4, .3, .4 MS | STAGE: (L) M H | No Vis. Ch. ☐ Dry/Int. ☐ DW ☐ Tribs. ☐

Type	SWD	LWD	B	U	DP	OV	IV
AMT	T	S	T	N	D	T	T
LOC	P	P	B		P	P	P

COVER Total: M

CROWN CLOSURE: 0 1 (2) 3 4 5

LWD FNC: N (F) A | DIST: C (E) | INSTREAM VEG: N (A) (M) V

LB SHP: U (V) S O | RB SHP: U (V) S O

TEXTURE: F (G) (C) B R A | TEXTURE: (F) G (C) B R A

RIP VEG: N G S (C) D M W | RIP VEG: N G S (C) D M W

STAGE: INIT SHR PS YF (M) NA | STAGE: INIT SHR PS YF (M) NA

EMS: | TEMP: 5.0 °C | COND: 70 μS/cm | pH: 8.0 | TURB: T M L (C)

FLO SNS: N

BED MATERIAL: Dominant: C | Subdom.: F

D95 (cm): 25 | D (cm): 2 | Morph: RP

DISTURBANCE INDICATORS: O1 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

PATTERN: TM ME IM IR (SI) ST

ISLANDS: (N) O I F S AN

BARS: (N) SIDE DIAG MID SPAN BR

COUPLING: DC (PC) CO

CONFINEMENT: EN CO (FC) OC UN N/A

C | NID MAP # | NID # | TYPE | HT/LG (m) | PHOTO | COMMENTS | UTM

FEATURES

HABITAT QUALITY

Best habitat in deep pools near road, otherwise very shallow/low flows which reduces quality.
- Some potential O.W. in pool u/s from road (pool d/s bad culvert), but no significant O.W.
- lacks spawning substrate
- all isolated above cascade barrier d/s – no fish in 1998 or 2000

FSZ ☐

PHOTO DOCUMENTATION

ROLL	#	FOCAL	DIR	COMMENTS
27	9	ST	U	(SR)

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C Site: road = [illegible] (50 m d/s road)
Allin C. trib resampling from 1998 inventory → 1998 [illegible] cascade at mouth, NFC above
1 Pools at culvert outflow
abund. orange algae d/s from culvert + trickle among mossy cobbles

C 37 [illegible] → [illegible] 37.41
NFC – S6

Rev. Apr. 1998

GEAR SPECIFICATIONS

ELECTROFISHER SPECIFICATIONS

65	Ef	1	1	16:10	16:15	113	100	0.9	0	700	80	6	CR	TR

COMMENTS

HABITAT QUALITY

Some cover but water is stagnant, algae filled, frequently silts, all organic substrate with no suitable salmonid habitat! Also, has steep gradient (cascade) to Allin C. d/s

FSZ ☐

PHOTO DOCUMENTATION

ROLL	#	FOCAL	DIR	COMMENTS
27	10	ST	D	(cam bag)

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C Site: 80m d/s from road to road
1 most cover d/s from road, further d/s, becomes v. shallow trickle through cobbles fines
no prior survey info – not on TRIM – also not at 36.9 but at 36.7
fines – organics

C NFC S6
Reference to [illegible] "[illegible] 47 @ 36.7"

Rev. Apr. 1998

GEAR SPECIFICATIONS

ELECTROFISHER SPECIFICATIONS

64	Ef	11	1	16:35	16:45	76	100	0.6	0	600	80	6	SP	TR

COMMENTS

Seep creek no salmonid habitat

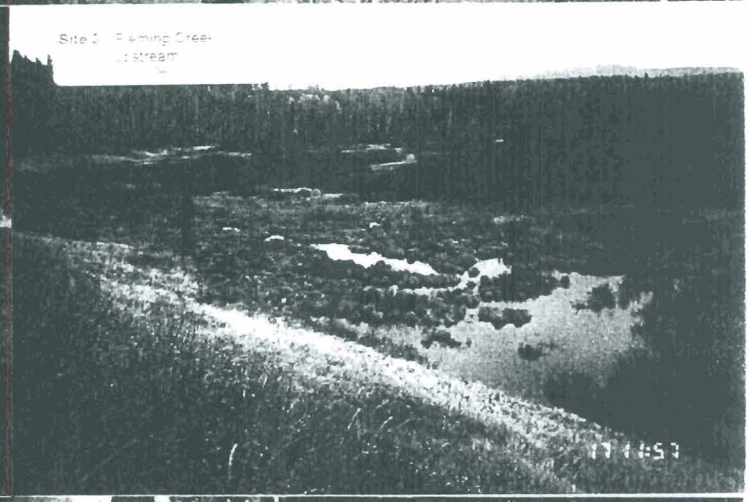
Rev. Apr. 1998 № 39660 CARD OF

Appendix II: Photographs (Arranged by Site)


Site 1: Fleming Creek
cross section

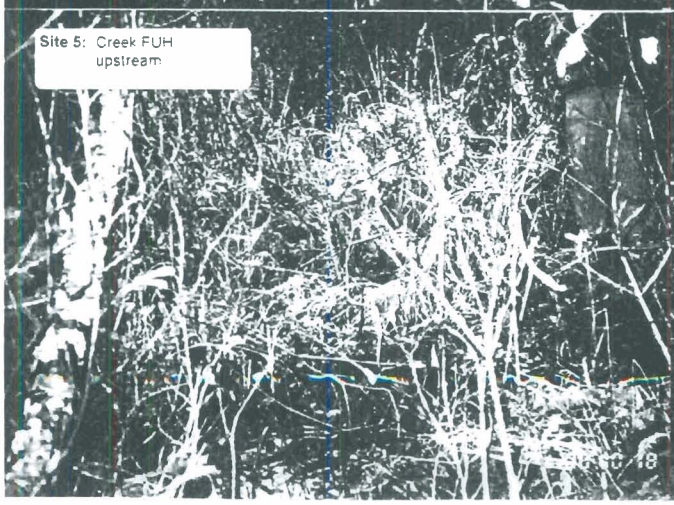

Site 2: Fleming Creek
downstream


Site 3: Fleming Creek
cross section

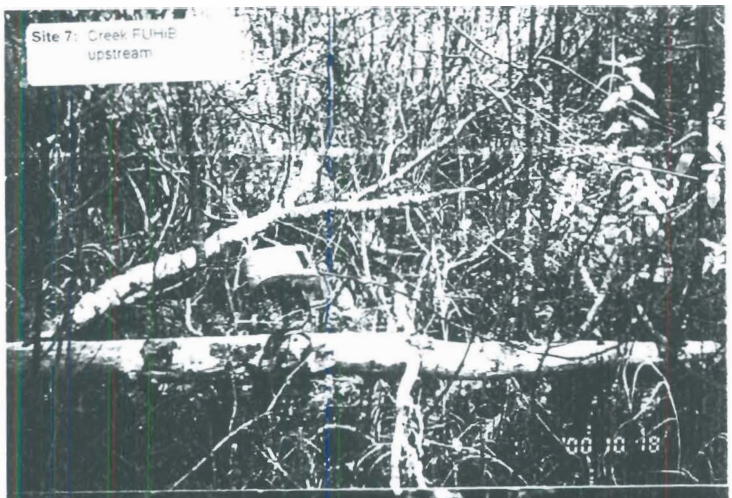

Site 3: Fleming Creek
upstream


Site 4: Creek FUH
downstream


Site 4: Creek FUH
upstream


Site 5: Creek FUH
upstream


Site 6: Creek FUHIA
downstream


Site 7: Creek FUHiE
upstream

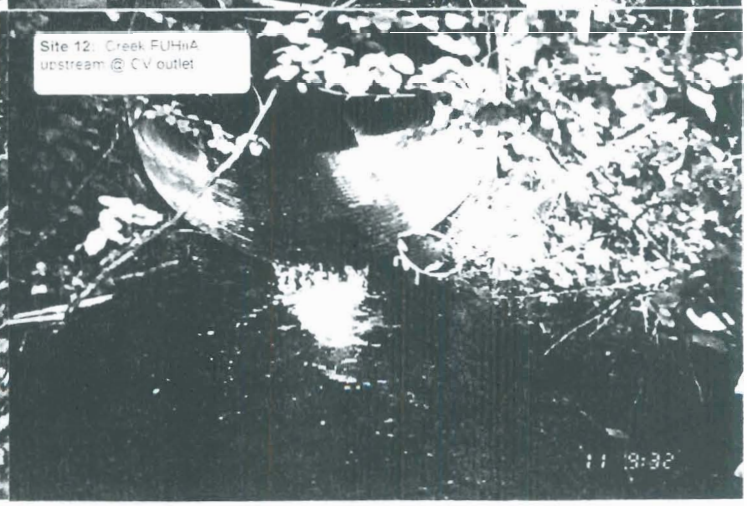

Site 9: Creek FUHii
upstream @ C.V. construction


Site 9: Creek FUHii
upstream


Site 9: Creek FUHii
downstream

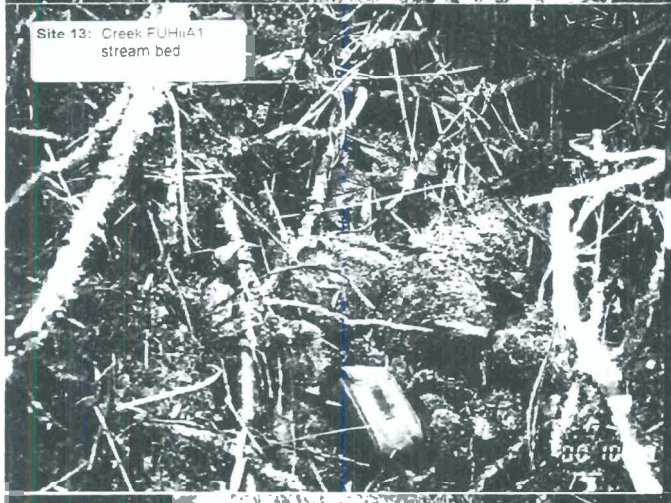

Site 10: Creek FUHii
downstream


Site 11: Creek FUHiiE
upstream


Site 12: Creek FUHiiA
upstream @ C.V. outlet

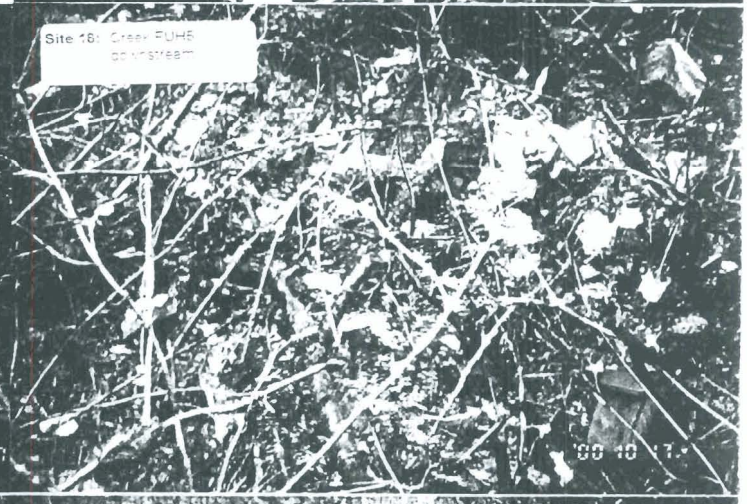

Site 12: Creek FUHIIA
downstream

Site 12: Creek FUHIIA
upstream

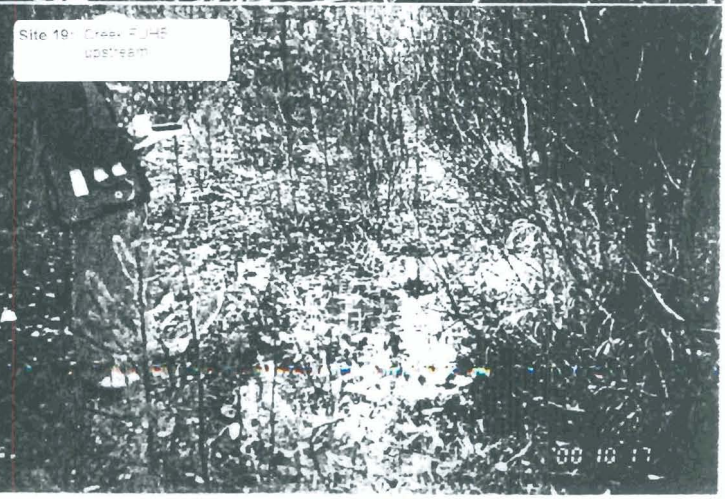

Site 13: Creek FUHIIA1
stream bed


Site 14: Creek FUHIIC
upstream


Site 17: Creek FUH4
upstream

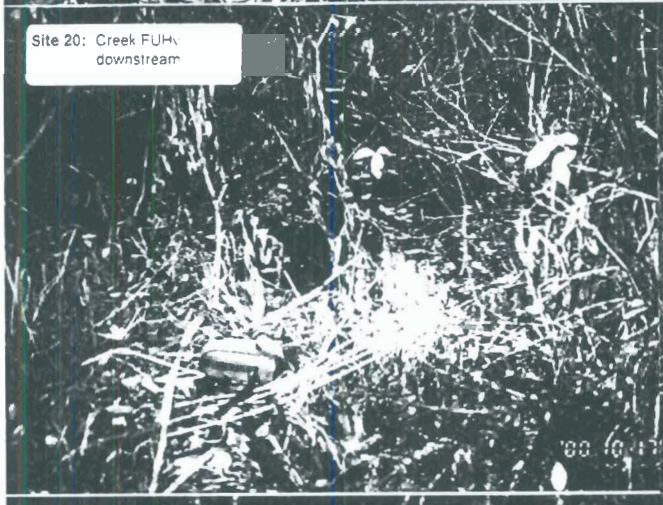

Site 18: Creek FUH5
upstream

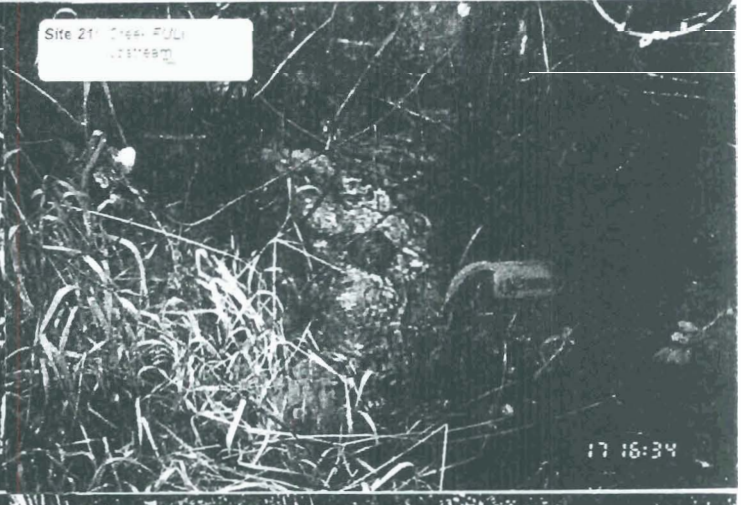

Site 18: Creek FUH5
upstream

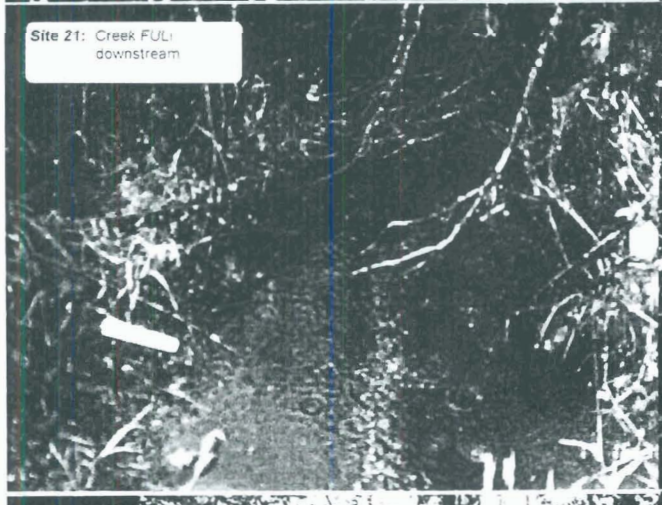

Site 19: Creek FUH5
upstream


Site 19: Creek FUH5
downstream

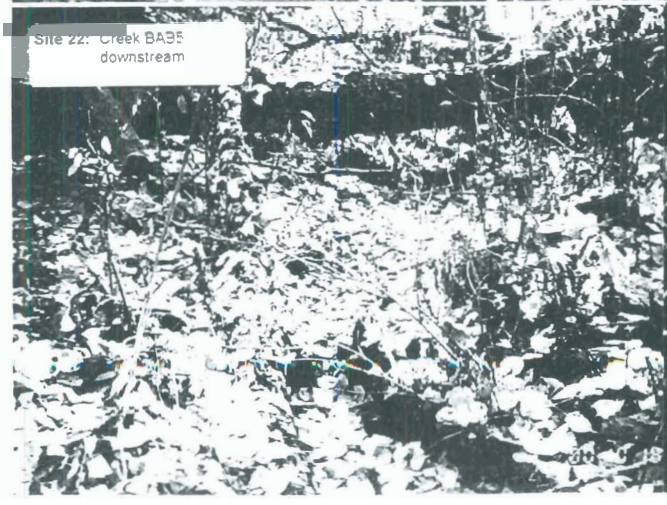
Site 20

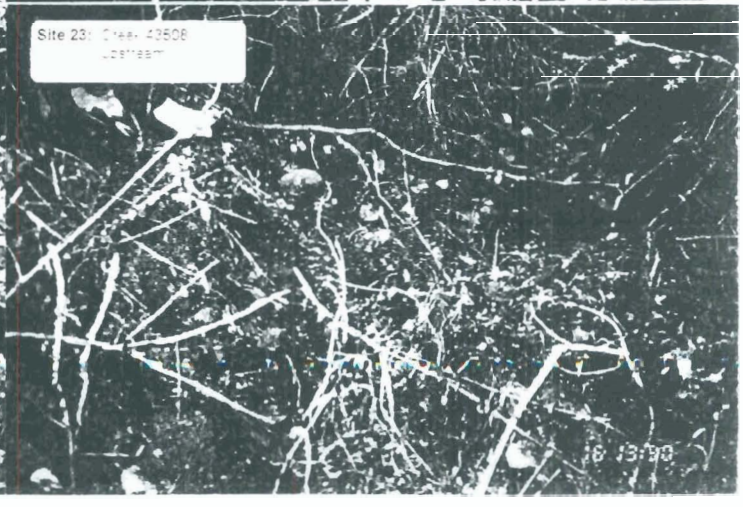

Site 20: Creek FUH
downstream

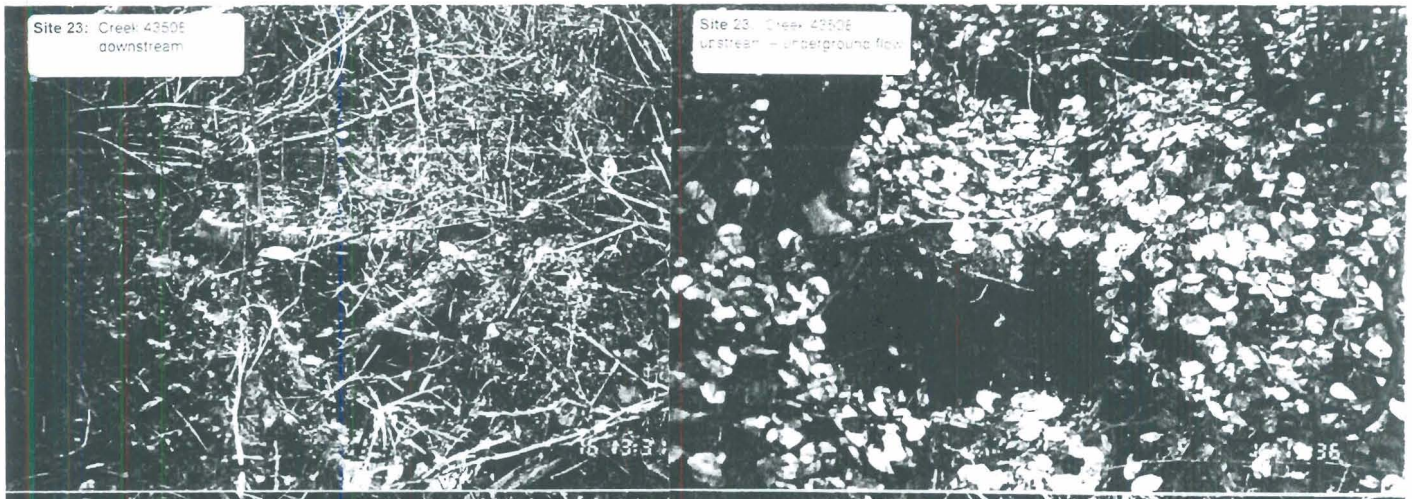

Site 21
17 16:34


Site 21: Creek FUL
downstream


Site 22


Site 22: Creek BAB5
downstream


Site 23
16 13:30


Site 23: Creek 43508
downstream

Site 23: Creek 43508
upstream – underground flow

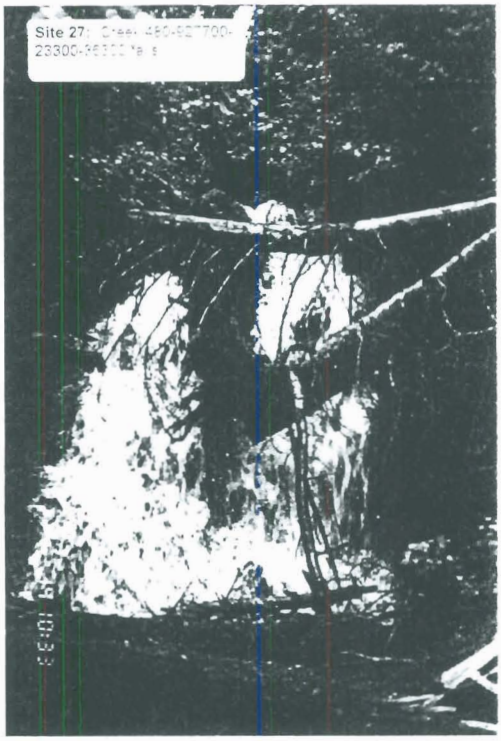

Site 24: Creek 43508
stream bed

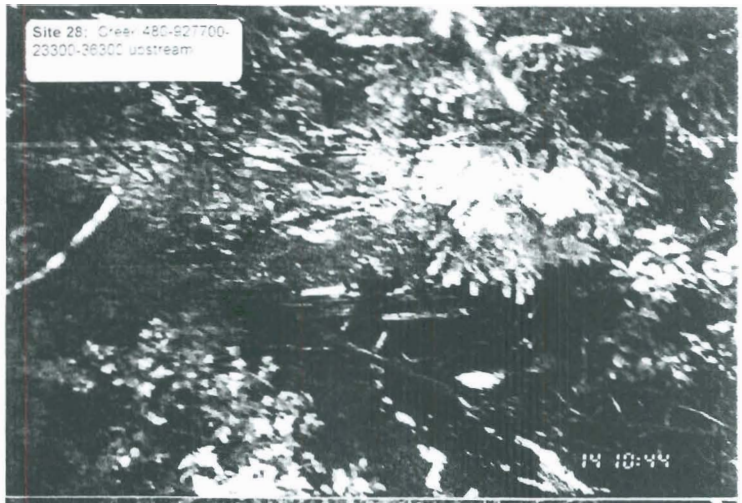
Site 24: Creek 43508
upstream


Site 26: Creek 34554
upstream

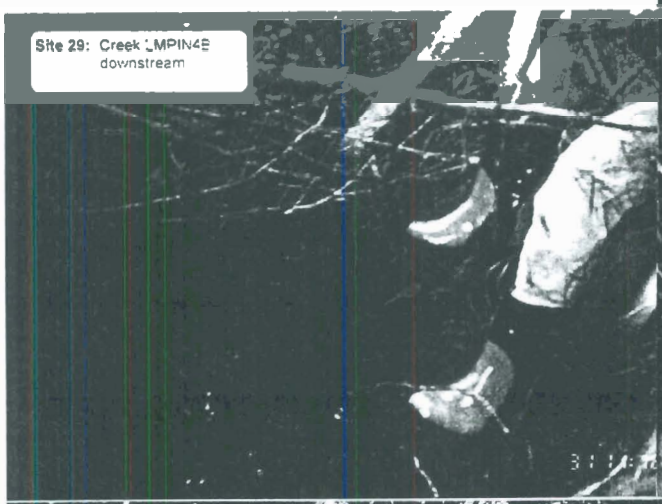
Site 27: Creek 480-927700-
23300-36300 downstream


Site 27: Creek 480-927700-
23300-36300 upstream

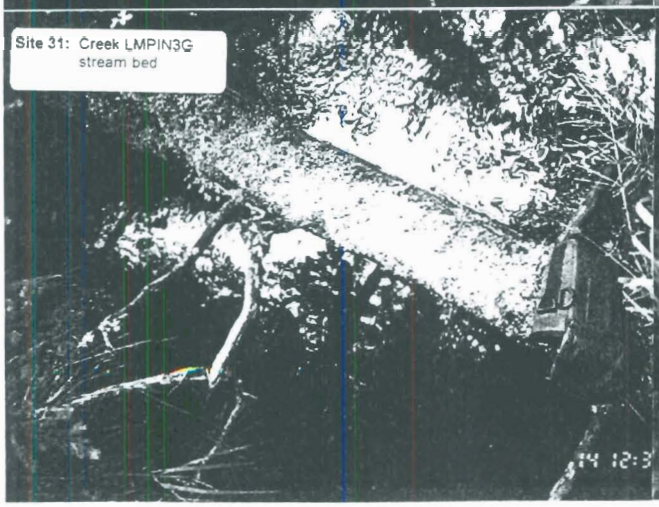

Site 27: Creek 480-927700-
23300-36300 upstream


Site 28: Creek 480-927700-
28300-36300 upstream
14 10:44

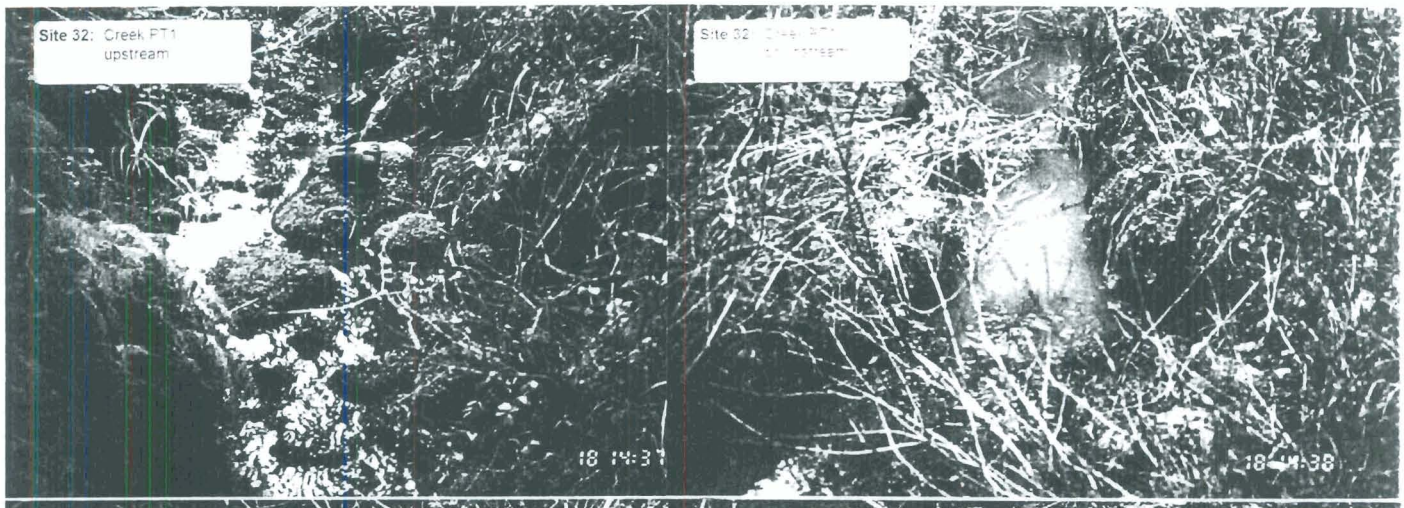

Site 29: Creek LMPIN4B
upstream
3 1 10:18


Site 29: Creek LMPIN4B
downstream


Site 30: Creek LORDS1
upstream
12 16:00


Site 31: Creek LMPIN3G
stream bed
14 12:3


Site 31: Creek LMPIN3G
downstream
14 12:32


Site 32: Creek PT1
upstream


Site 33: Creek PT1
upstream


Site 34: Creek PT
upstream


Site 35: Creek PT2
upstream


Site 36: Creek PT3
upstream

Site 36: Creek PT3
upstream from road


Site 37: Creek PT4
upstream

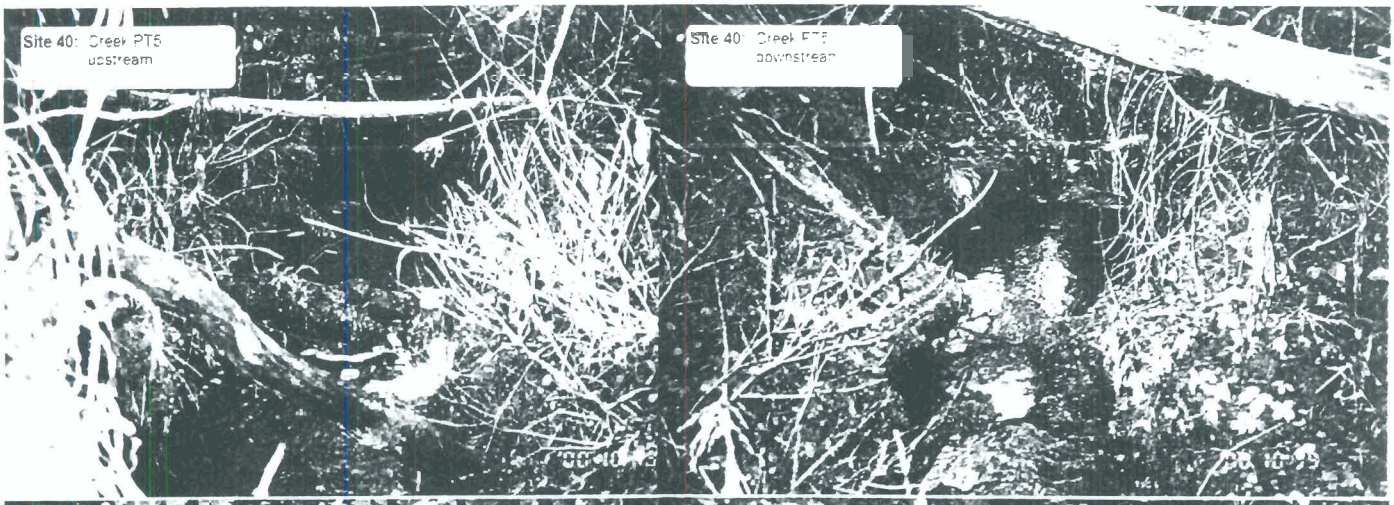
Site 37: Creek PT4
downstream


Site 38: Creek PT4
upstream

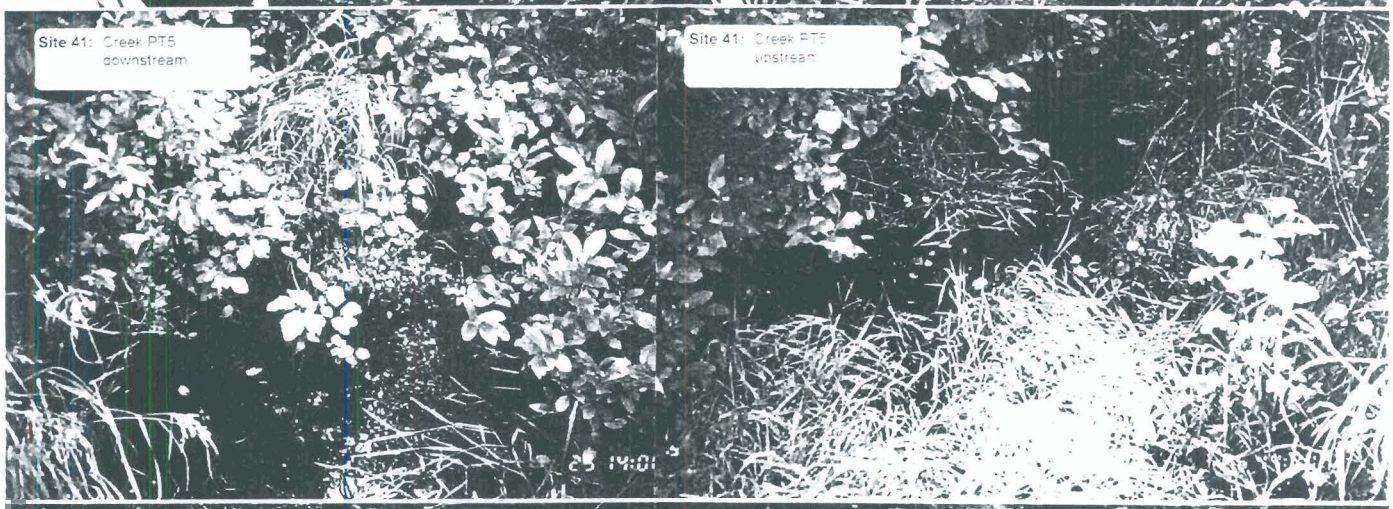
Site 38: Creek PT4
downstream


Site 39: Creek PT4
upstream

Site 39: Creek PT4
downstream


Site 40: Creek PT5
upstream

Site 40: Creek PT5
downstream


Site 41: Creek PT5
downstream

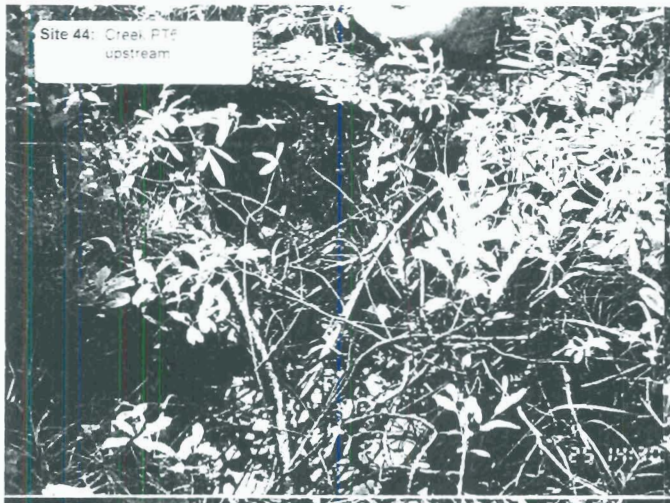
Site 41: Creek PT5
upstream


Site 42: Creek PT6
upstream

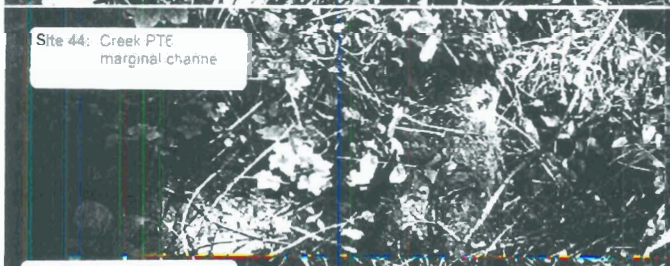
Site 42: Creek PT6
downstream

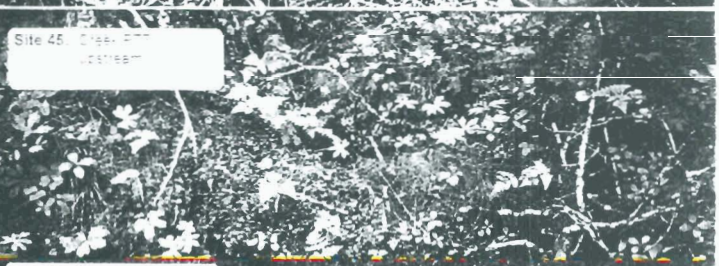

Site 43: Creek PT6
upstream

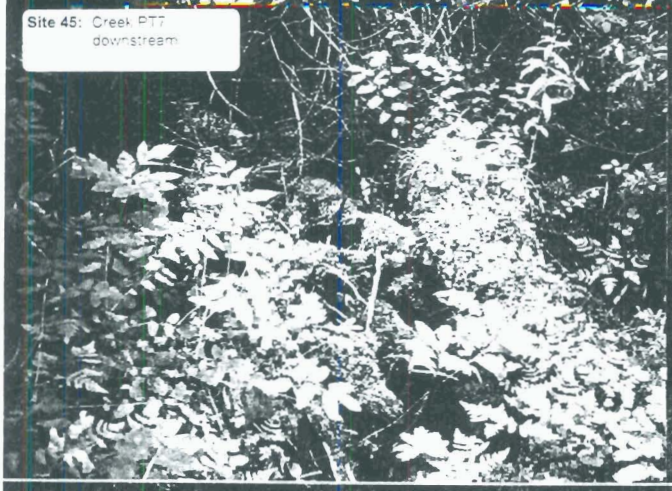
Site 43: Creek PT6
cross section

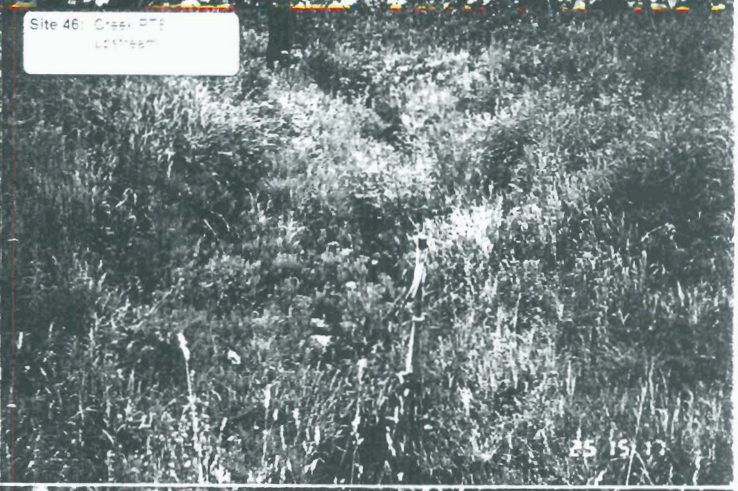

Site 44: Creek PT6
upstream


Site 44

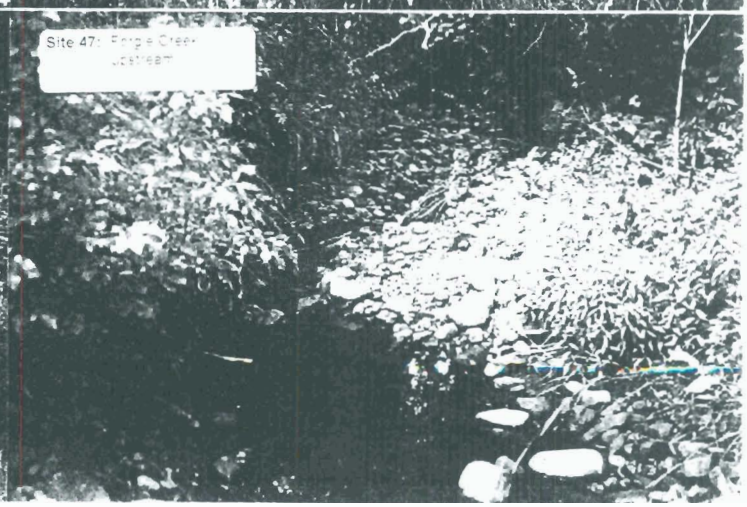

Site 44: Creek PT6
marginal channe

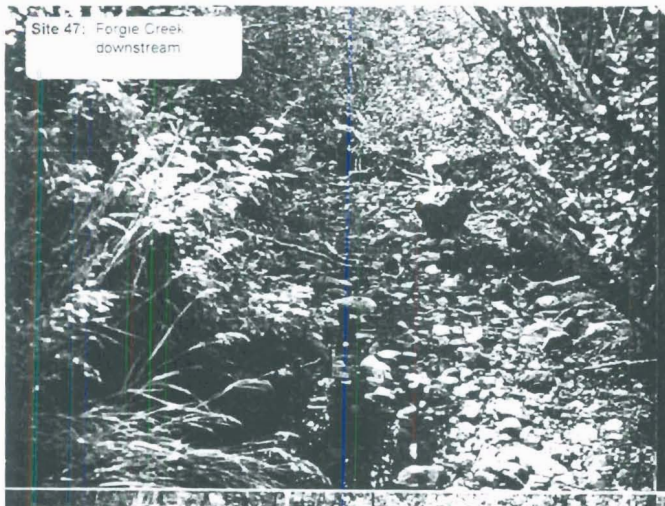

Site 45

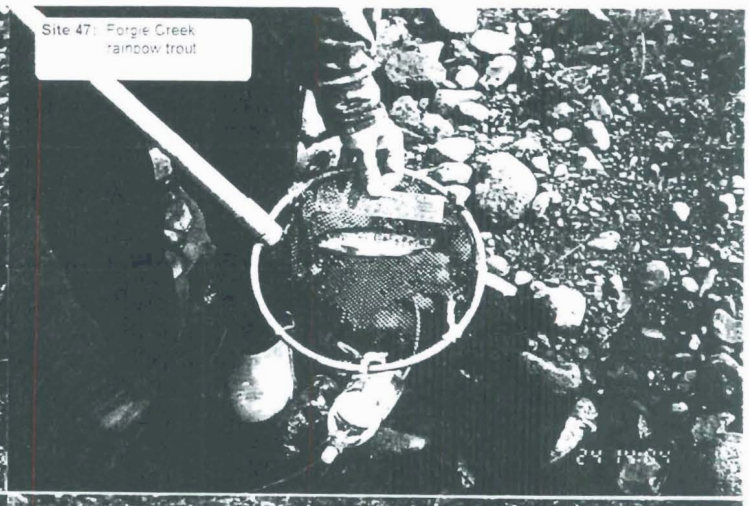

Site 45: Creek PT7
downstream

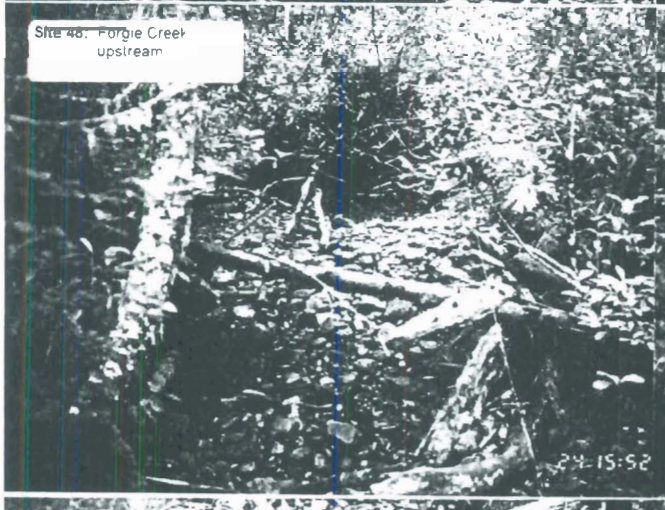

Site 46

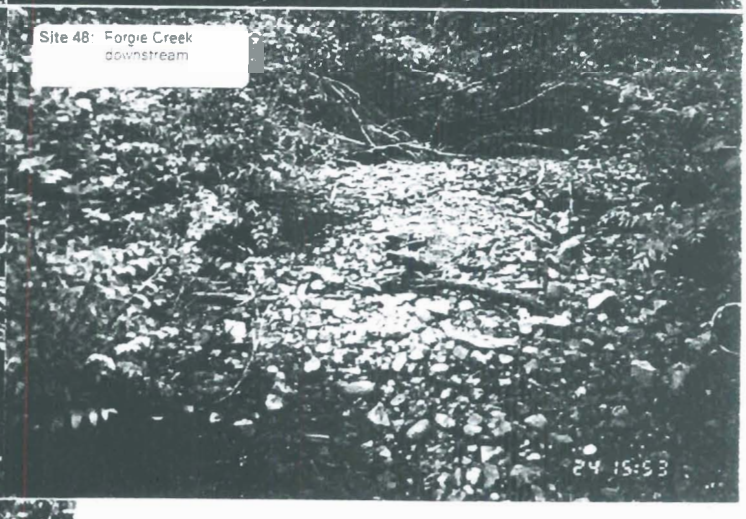

Site 46: Creek PT8
downstream


Site 47: Fringe Creek


Site 47: Forgie Creek
downstream

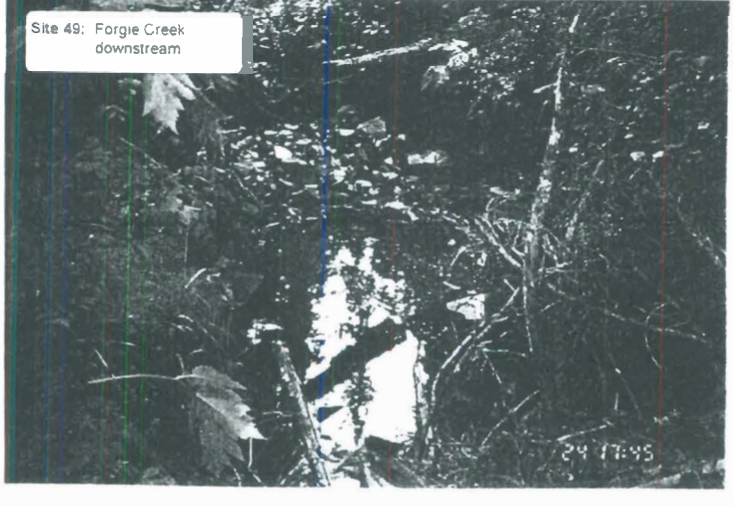

Site 47: Forgie Creek
rainbow trout


Site 48: Forgie Creek
upstream
24 15:52


Site 48: Forgie Creek
downstream
24 15:53

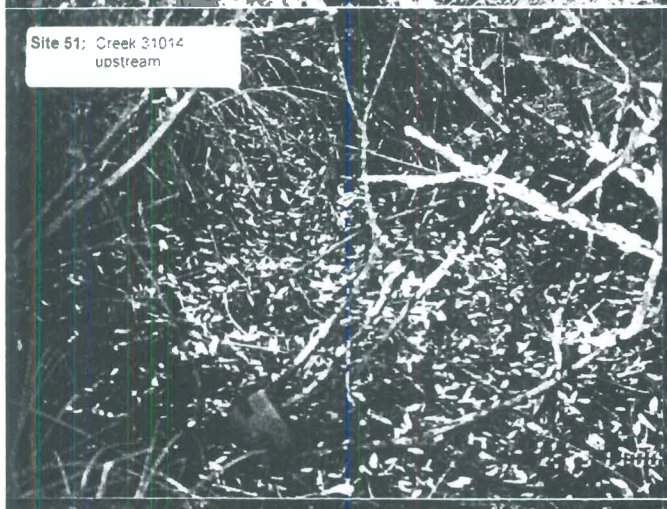

Site 49: Forgie Creek
upstream


Site 49: Forgie Creek
cascade

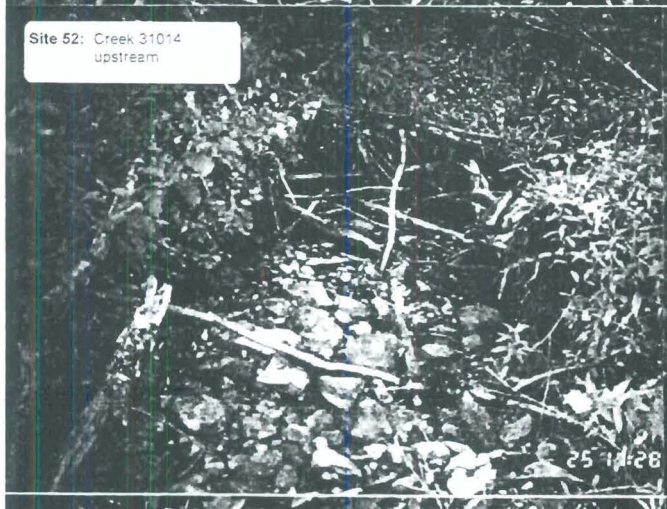

Site 49: Forgie Creek
downstream
24 17:48


Site 50: Fergie Creek upstream

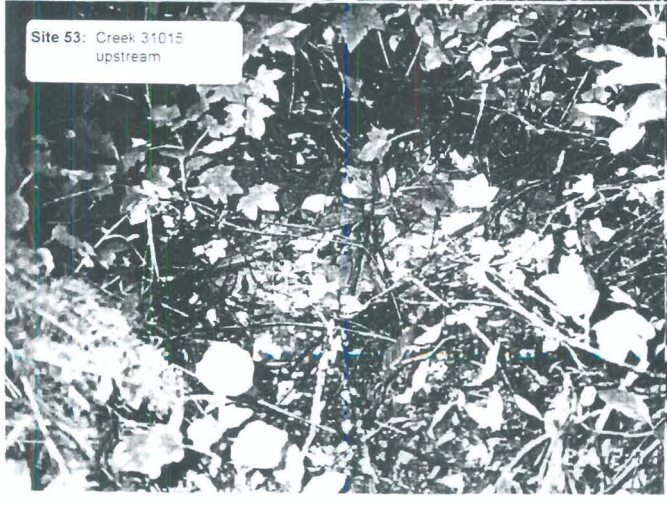
Site 50: Fergie Creek downstream


Site 51: Creek 31014 upstream

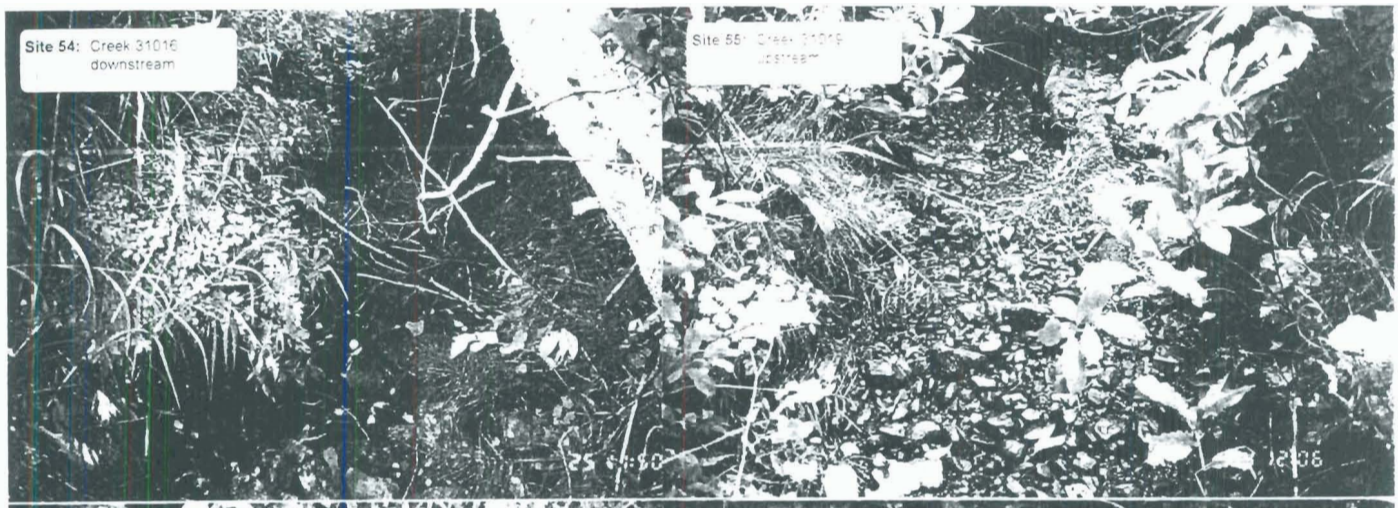

Site 51: Creek 31014 downstream


Site 52: Creek 31014 upstream


Site 52: Creek 31014 downstream


Site 53: Creek 31015 upstream

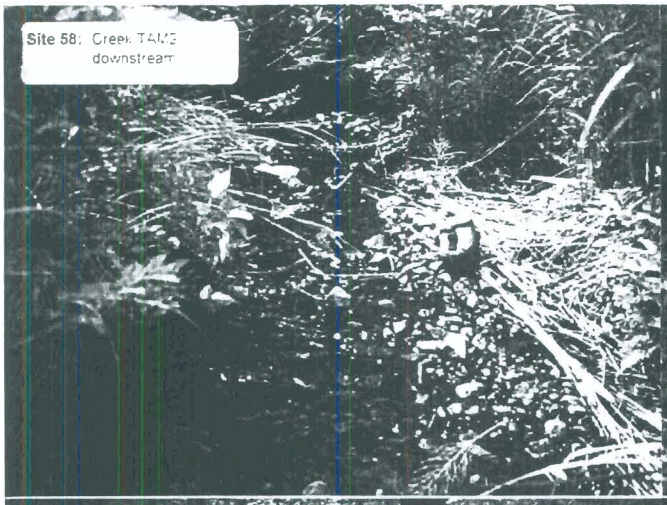

Site 54: Creek 31016 upstream


Site 54: Creek 31016
downstream
Site 55: Creek 31019
upstream


Site 55: Creek 31019
stream bed
Site 56: Creek 31021
upstream

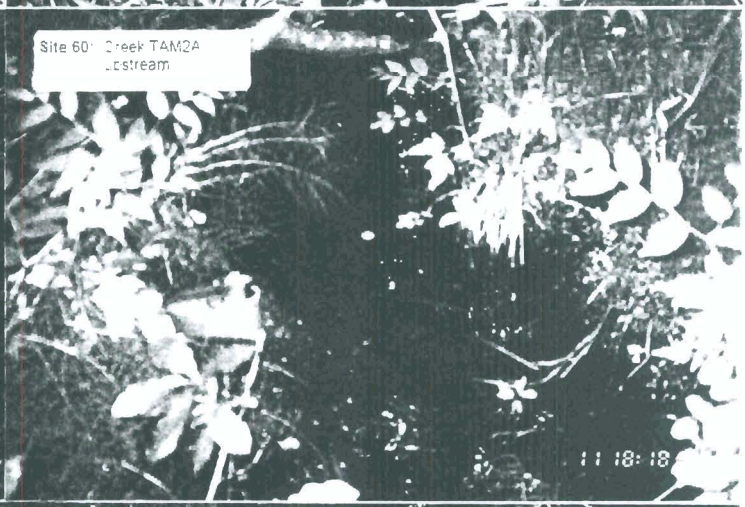

Site 56: Creek 31021
downstream
Site 57: Creek TAM2
upstream

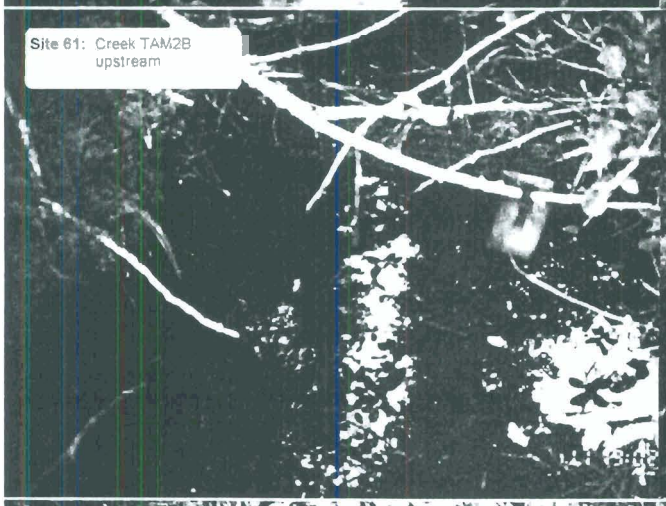

Site 57: Creek TAM2
downstream
Site 58: Creek TAM2
upstream


Site 58: Creek TAM2
downstream

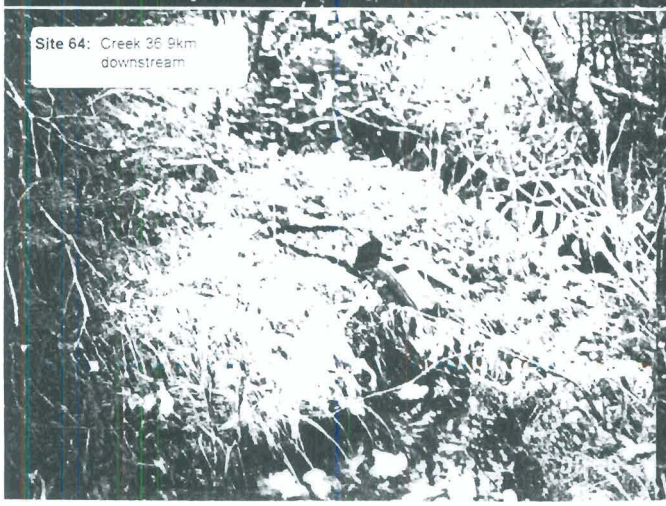

Site 59: Creek TAM2
downstream

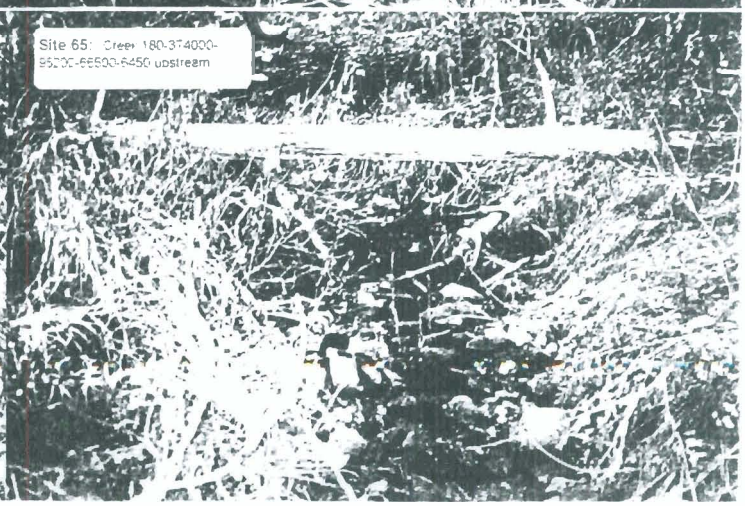

Site 60: Creek TAM2A upstream
– water inflow from
recently build road


Site 60: Creek TAM2A
upstream

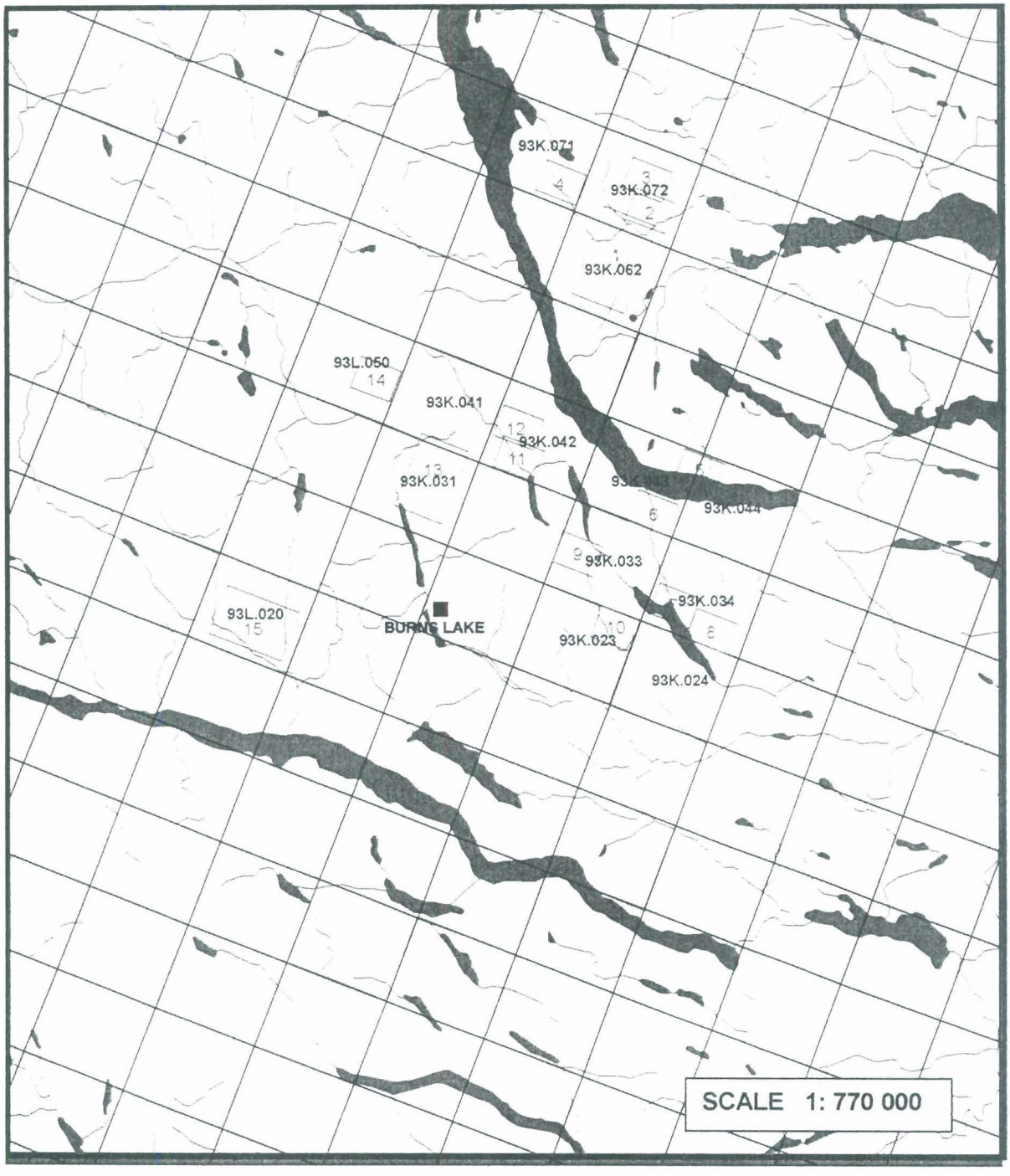

Site 61: Creek TAM2B
upstream


Site 62: Creek 460-924300-
90900 downstream

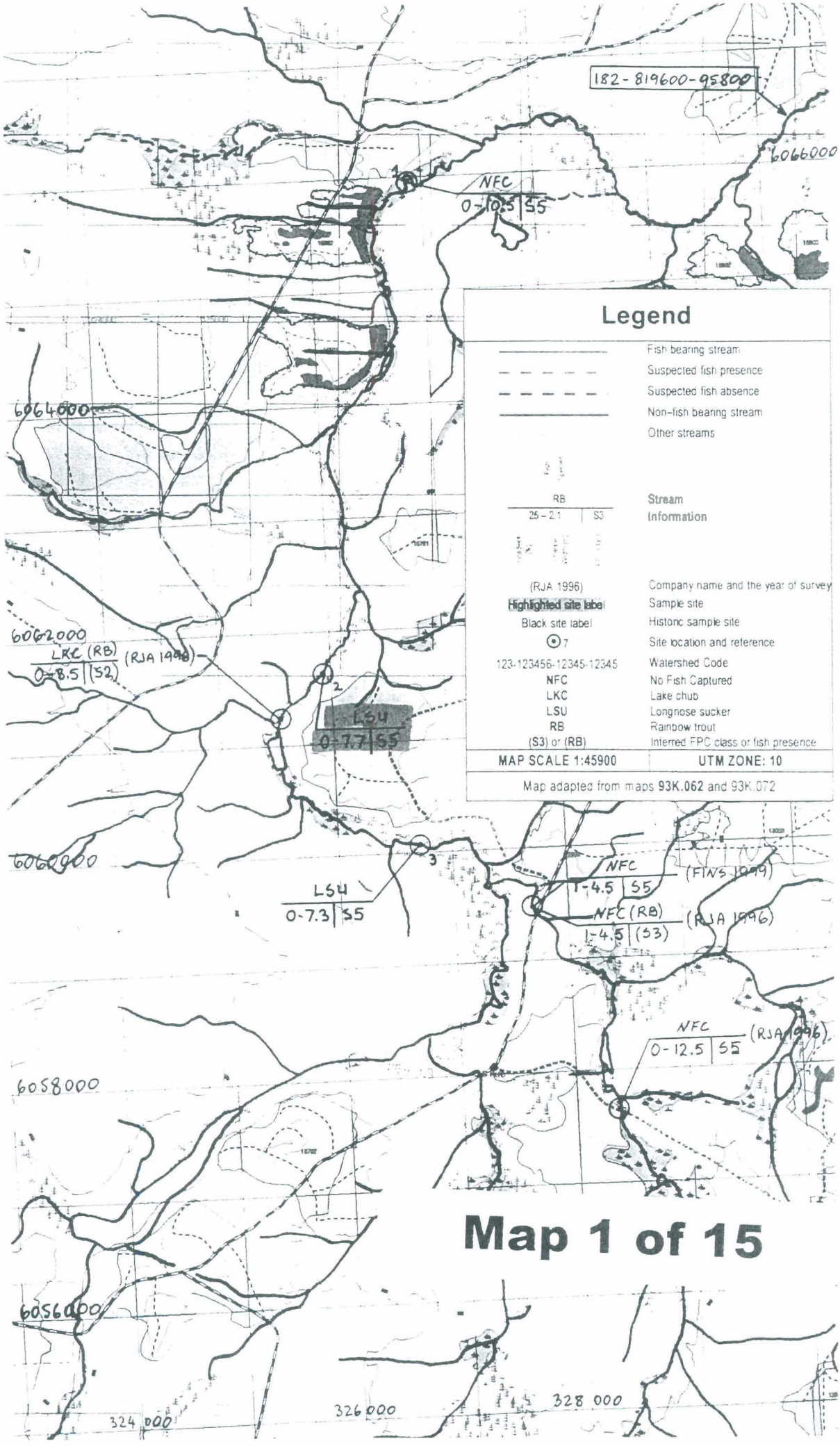

Site 64: Creek 36.9km
downstream


Site 65: Creek 180-374000-
95200-66500-6450 upstream

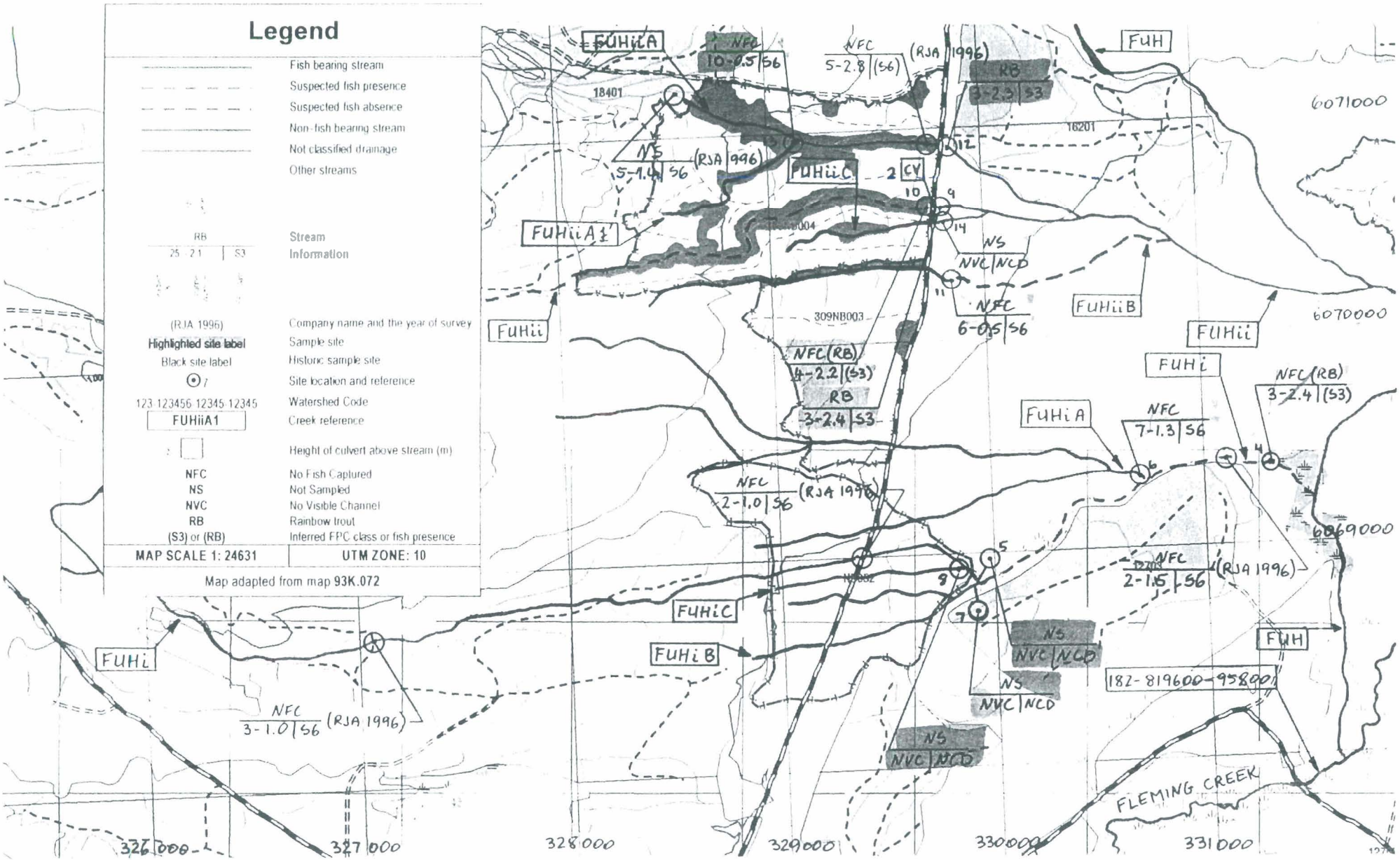
Appendix III: Hardcopy Maps (Including Key map)


93K.071
93K.072
93K.062
93L.050
93K.041
93K.042
93K.031
93K.044
93K.033
93K.034
93L.020
BURNS LAKE
93K.023
93K.024
SCALE 1: 770 000

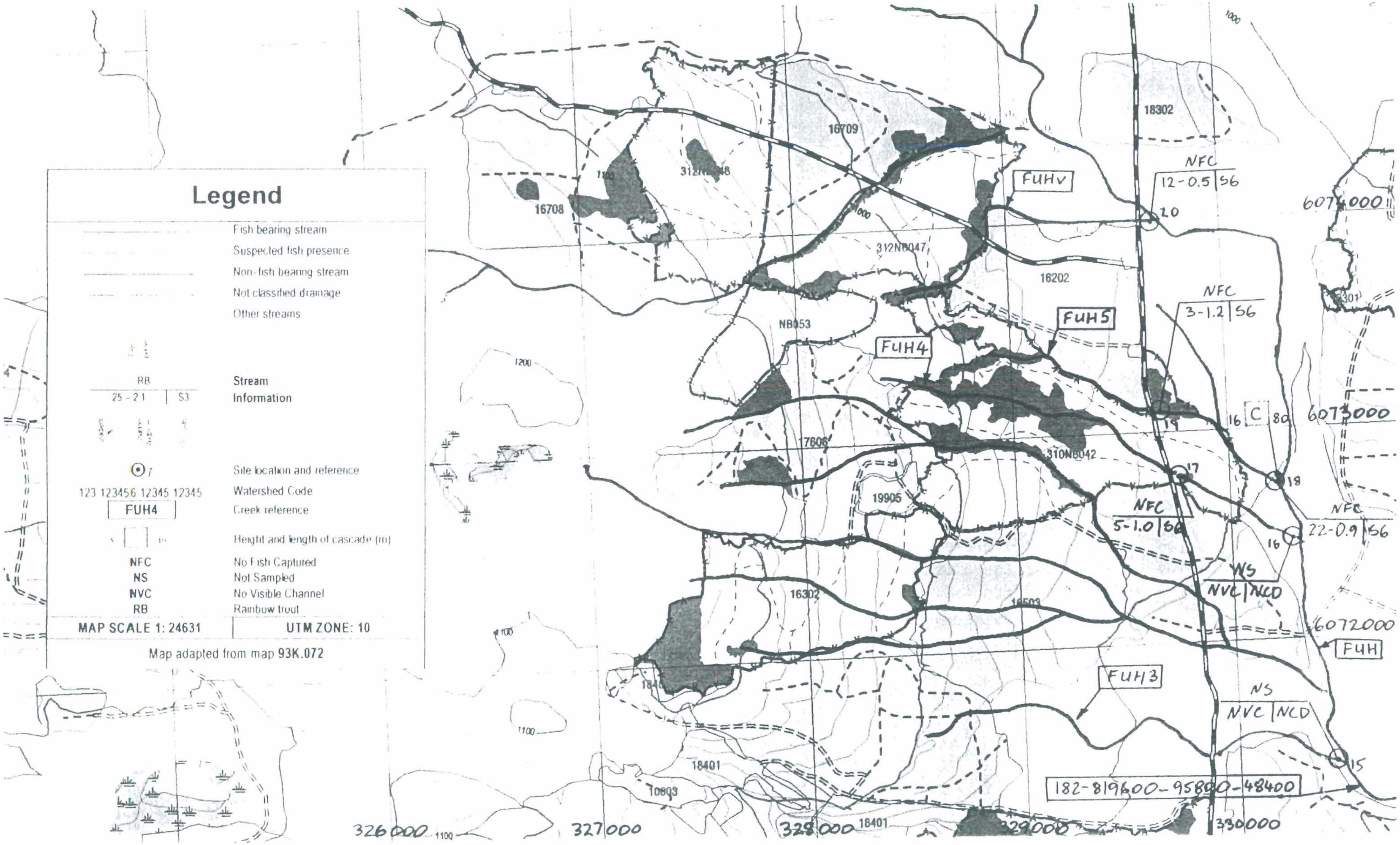
Key map


182-819600-95800
6066000
NFC
0-10.5 | S5
6064000
6062000
LKC (RB) (RJA 1996)
0-8.5 | (S2)
LSU
0-7.7 | S5
6060000
LSU
0-7.3 | S5
NFC (FINS 1999)
1-4.5 | S5
NFC (RB) (RJA 1996)
1-4.5 | (S3)
NFC (RJA 1996)
0-12.5 | S5
6058000
6056000
324 000
326 000
328 000
Legend
Fish bearing stream
Suspected fish presence
Suspected fish absence
Non-fish bearing stream
Other streams
RB
25 - 2.1 | S3
Stream Information
(RJA 1996)
Company name and the year of survey
Highlighted site label
Sample site
Black site label
Historic sample site
7
Site location and reference
123-123456-12345-12345
Watershed Code
NFC
No Fish Captured
LKC
Lake chub
LSU
Longnose sucker
RB
Rainbow trout
(S3) or (RB)
Inferred FPC class or fish presence
MAP SCALE 1:45900
UTM ZONE: 10
Map adapted from maps 93K.062 and 93K.072

Map 1 of 15

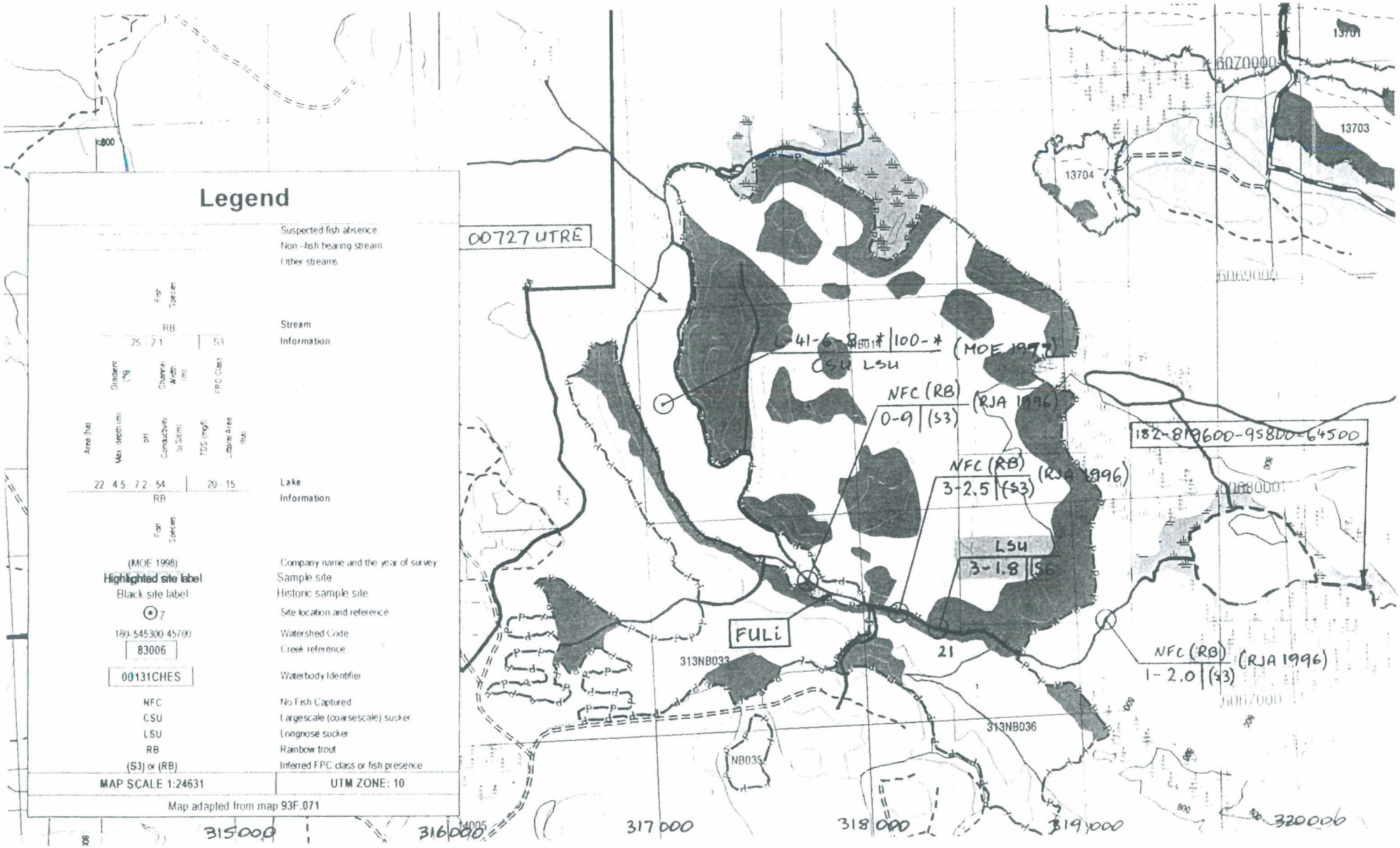

Legend
Fish bearing stream
Suspected fish presence
Suspected fish absence
Non-fish bearing stream
Not classified drainage
Other streams
RB
25 2.1 S3
Stream
Information
(RJA 1996)
Company name and the year of survey
Highlighted site label
Sample site
Black site label
Historic sample site
Site location and reference
123-123456-12345-12345
Watershed Code
FUHiiA1
Creek reference
Height of culvert above stream (m)
NFC
No Fish Captured
NS
Not Sampled
NVC
No Visible Channel
RB
Rainbow trout
(S3) or (RB)
Inferred FPC class or fish presence
MAP SCALE 1: 24631
UTM ZONE: 10
Map adapted from map 93K.072
FUHiiA
FUHiiC
FUHii
FUHiiA1
FUHiiB
FUHi
FUHiA
FUHiC
FUHiB
FUH
FLEMING CREEK
18401
16201
309NB003
NFC 10-0.5|S6
NFC 5-2.8|(S6) (RJA 1996)
NS 5-1.4|S6 (RJA 1996)
RB 3-2.3|S3
2 CY
NS NVC|NCD
NFC 6-0.5|S6
NFC (RB) 4-2.2|(S3)
RB 3-2.4|S3
NFC 7-1.3|S6
NFC (RB) 3-2.4|(S3)
NFC 2-1.0|S6 (RJA 1996)
NFC 2-1.5|S6 (RJA 1996)
NFC 3-1.0|S6 (RJA 1996)
182-819600-958001
6071000
6070000
6069000
326 000
327 000
328 000
329 000
330 000
331 000

Map 2 of 15

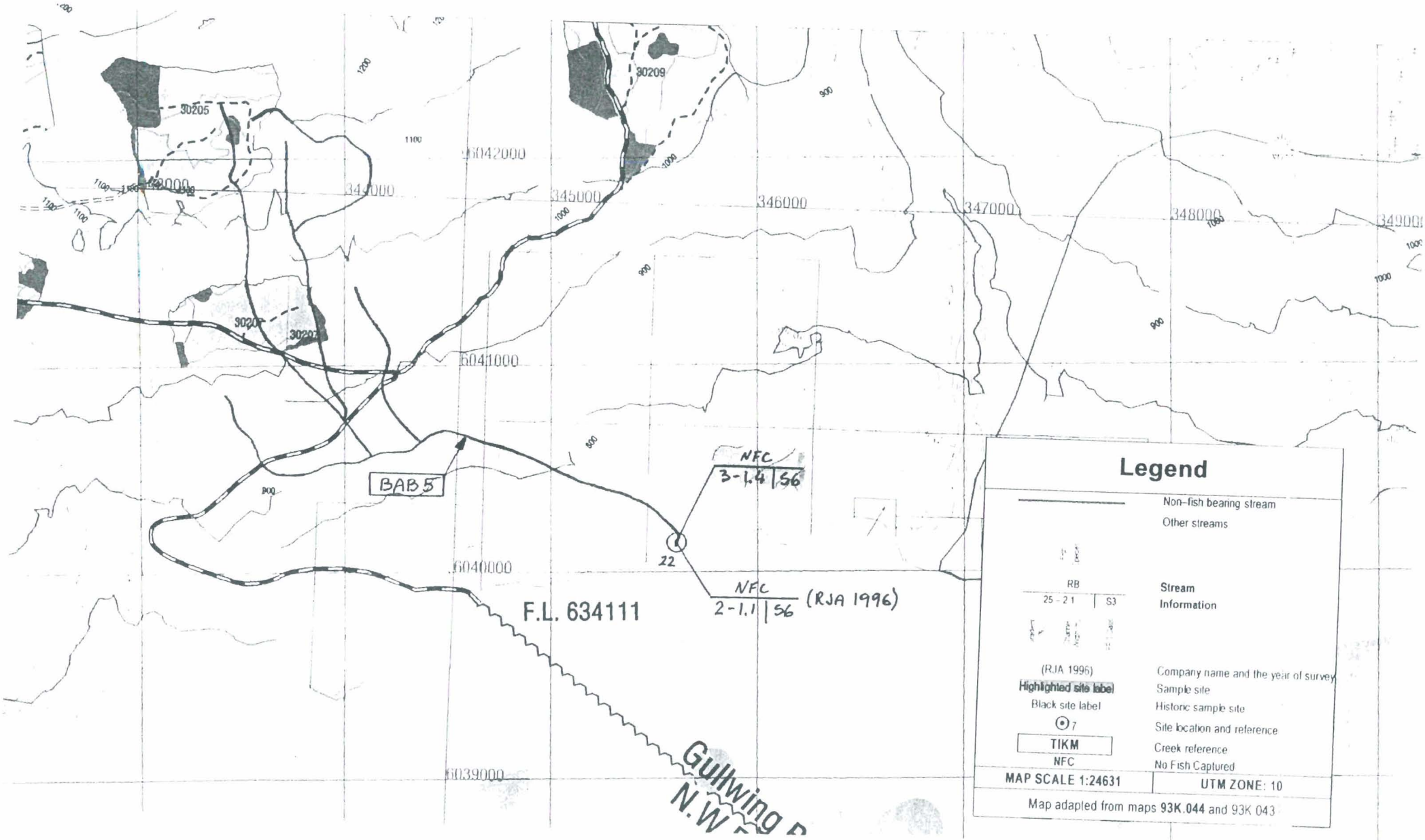


Legend
Fish bearing stream
Suspected fish presence
Non-fish bearing stream
Not classified drainage
Other streams
Stream Information
Site location and reference
Watershed Code
Creek reference
Height and length of cascade (m)
NFC No Fish Captured
NS Not Sampled
NVC No Visible Channel
RB Rainbow trout
MAP SCALE 1: 24631
UTM ZONE: 10
Map adapted from map 93K.072
FUHV
FUH5
FUH4
FUH3
FUH
NFC 12-0.5 | 56
NFC 3-1.2 | 56
NFC 5-1.0 | 56
NFC 22-0.9 | 56
NS NVC | NCD
182-819600-95800-48400
326000
327000
328000
329000
330000
6074000
6073000
6072000

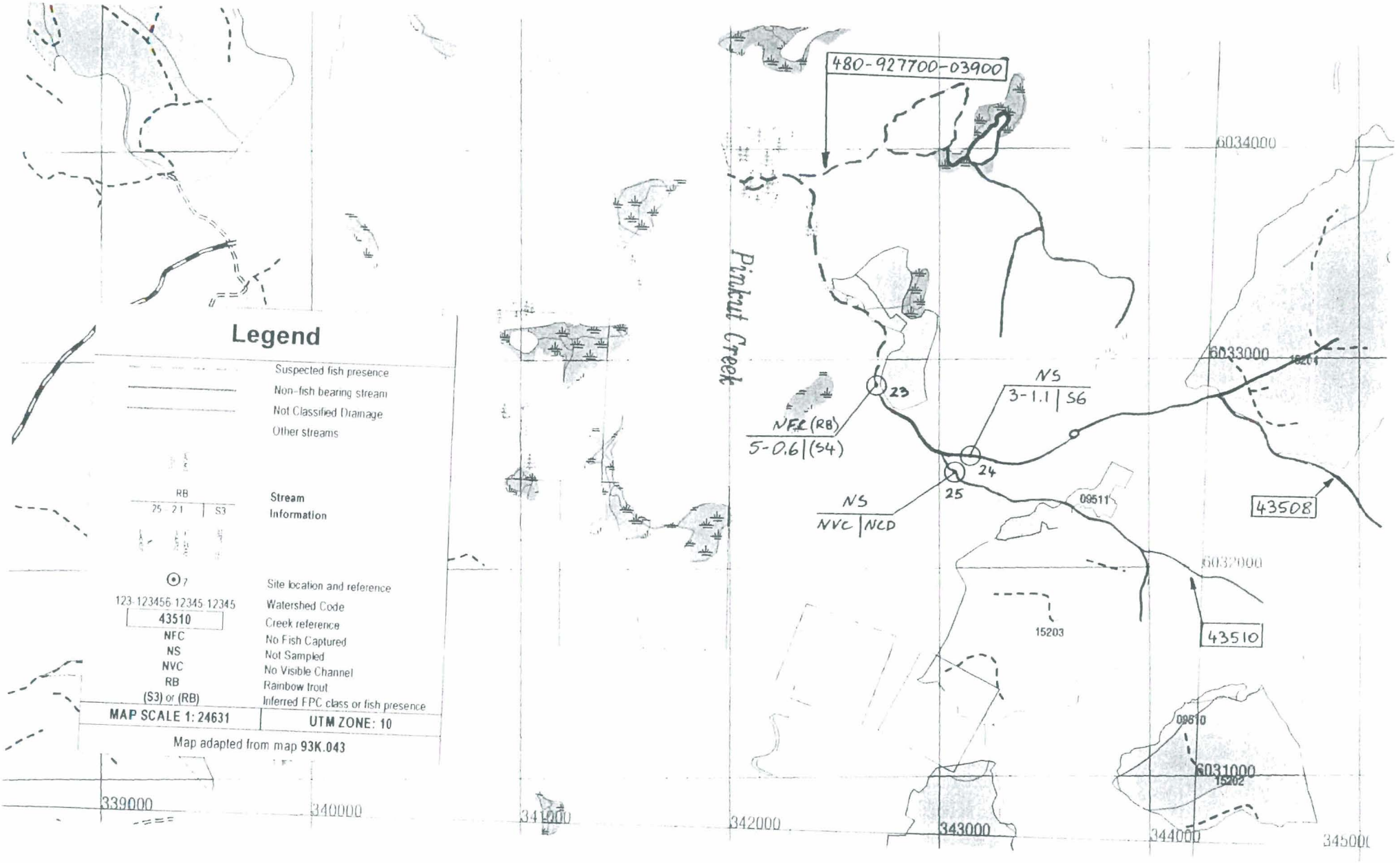
Map 3 of 15


Legend
Suspected fish absence
Non-fish bearing stream
Other streams
Fish Species
RB
25 2 1 | S3
Gradient (%)
Channel Width (m)
FPC Class
Stream Information
Area (ha)
Max. depth (m)
pH
Conductivity (uS/cm)
TDS (mg/l)
Littoral Area (ha)
22 4.5 7.2 54 | 20 15
RB
Lake Information
Fish Species
(MOE 1998)
Company name and the year of survey
Highlighted site label
Sample site
Black site label
Historic sample site
7
Site location and reference
183-545300-45700
Watershed Code
83006
Creek reference
00131CHES
Waterbody Identifier
NFC
No Fish Captured
CSU
Largescale (coarsescale) sucker
LSU
Longnose sucker
RB
Rainbow trout
(S3) or (RB)
Inferred FPC class or fish presence
MAP SCALE 1:24631
UTM ZONE: 10
Map adapted from map 93F.071
00727 UTRE
41-6-8 | 100-*
CSU LSU
(MOE 1998)
NFC (RB)
0-9 | (S3)
(RJA 1996)
NFC (RB)
3-2.5 | (S3)
(RJA 1996)
LSU
3-1.8 | S6
182-819600-95800-64500
NFC (RB)
1-2.0 | (S3)
(RJA 1996)
FULi
313NB033
313NB036
NB035
21
13701
13703
13704
6070000
6068000
6067000
315000
316000
317000
318000
319000
320000

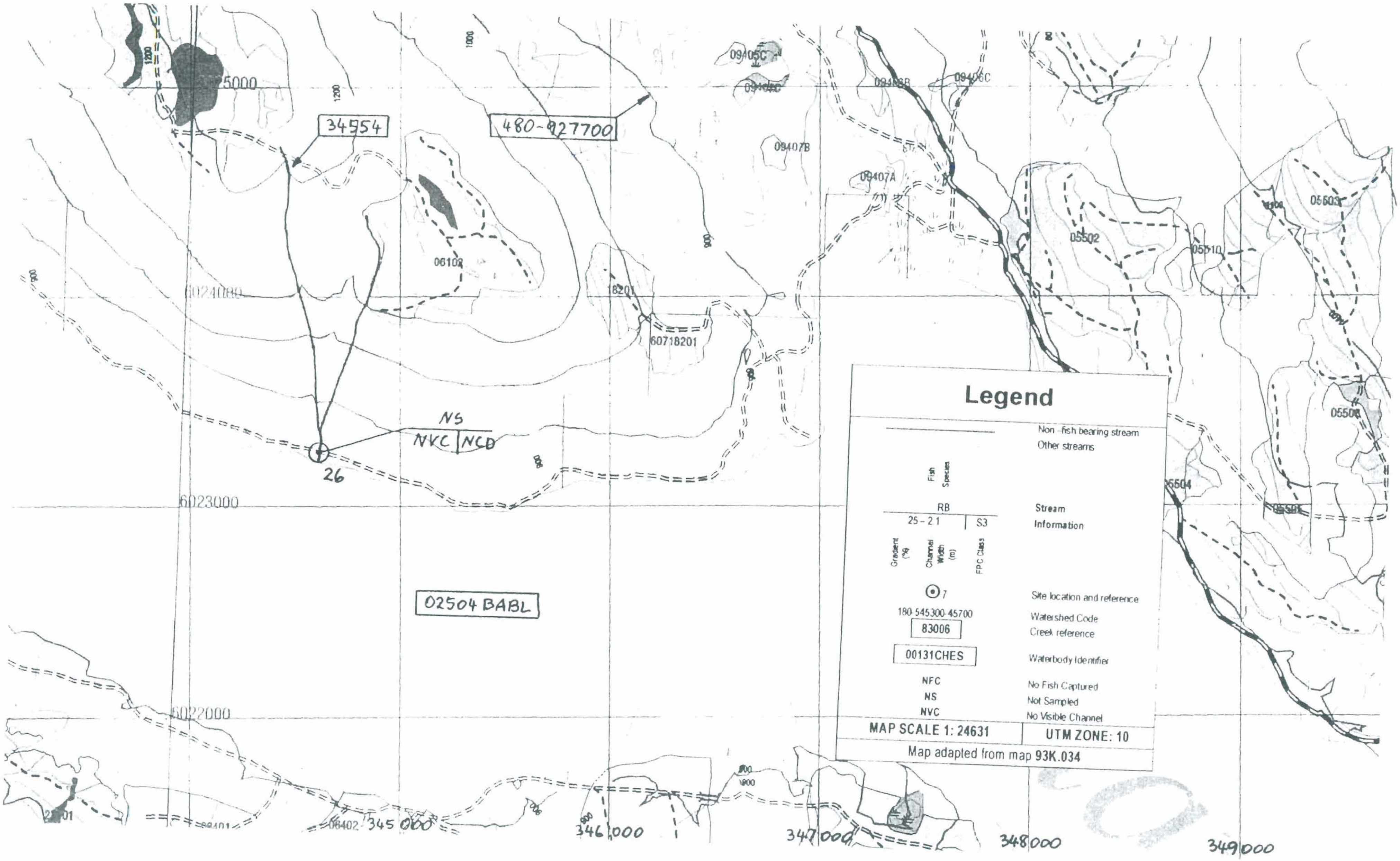
Map 4 of 15


30209
30205
30207
6042000
6041000
6040000
6039000
345000
346000
347000
348000
BAB5
NFC
3-1.4 | 56
22
NFC
2-1.1 | 56 (RJA 1996)
F.L. 634111
Gullwing
N.W
Legend
Non-fish bearing stream
Other streams
RB
25 - 21 | S3
Stream Information
(RJA 1996)
Company name and the year of survey
Highlighted site label
Sample site
Black site label
Historic sample site
7
Site location and reference
TIKM
Creek reference
NFC
No Fish Captured
MAP SCALE 1:24631
UTM ZONE: 10
Map adapted from maps 93K.044 and 93K 043

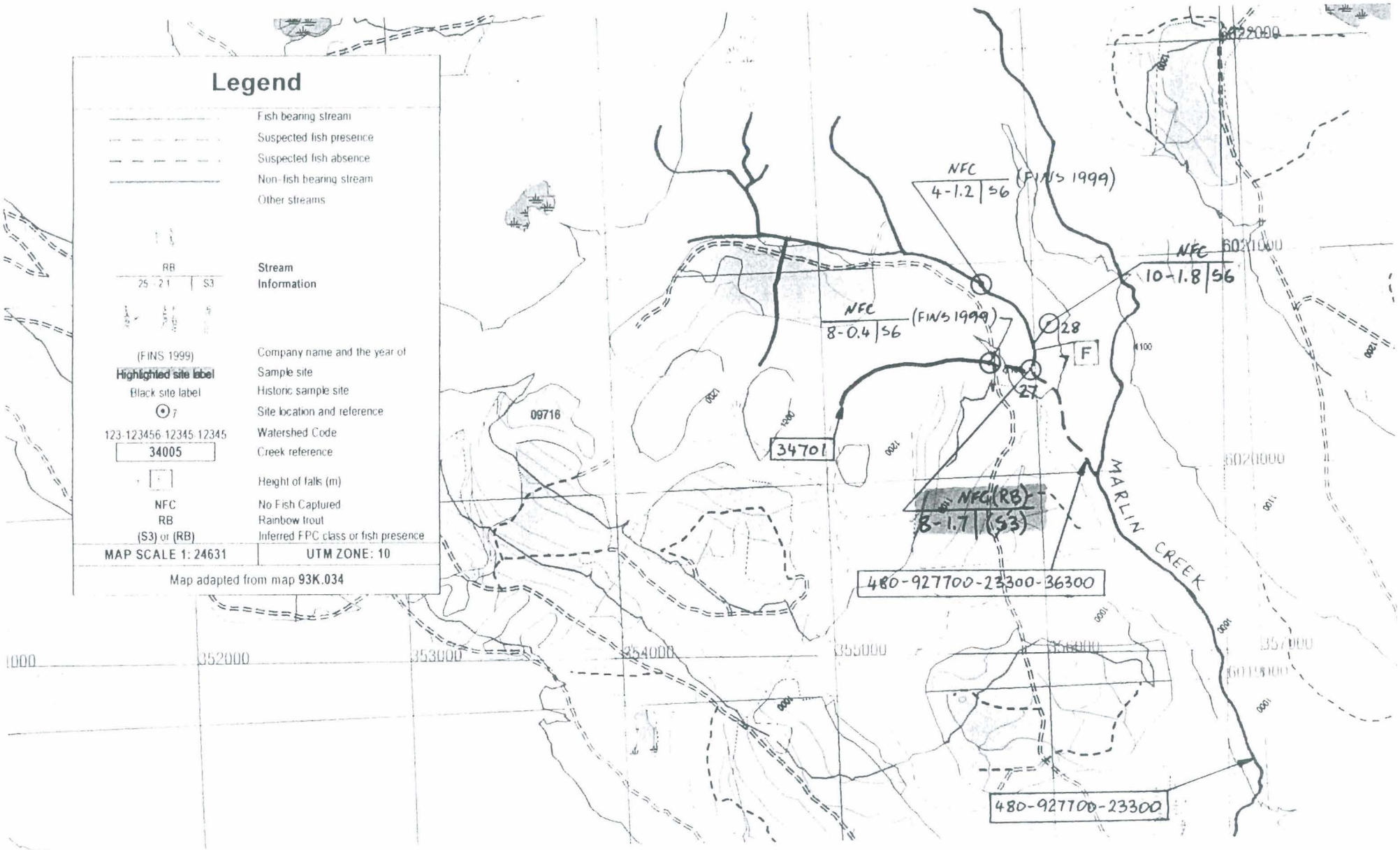
Map 5 of 15


480-927700-03900
Pinkut Creek
6034000
6033000
6032000
6031000
339000
340000
341000
342000
343000
344000
345000
23
24
25
NS
3-1.1 | S6
NFC (RB)
5-0.6 | (S4)
NS
NVC | NCD
09511
43508
43510
15203
09610
15202
Legend
Suspected fish presence
Non-fish bearing stream
Not Classified Drainage
Other streams
RB
25 - 2.1 | S3
Stream Information
Site location and reference
123-123456-12345-12345
Watershed Code
43510
Creek reference
NFC
No Fish Captured
NS
Not Sampled
NVC
No Visible Channel
RB
Rainbow trout
(S3) or (RB)
Inferred FPC class or fish presence
MAP SCALE 1: 24631
UTM ZONE: 10
Map adapted from map 93K.043

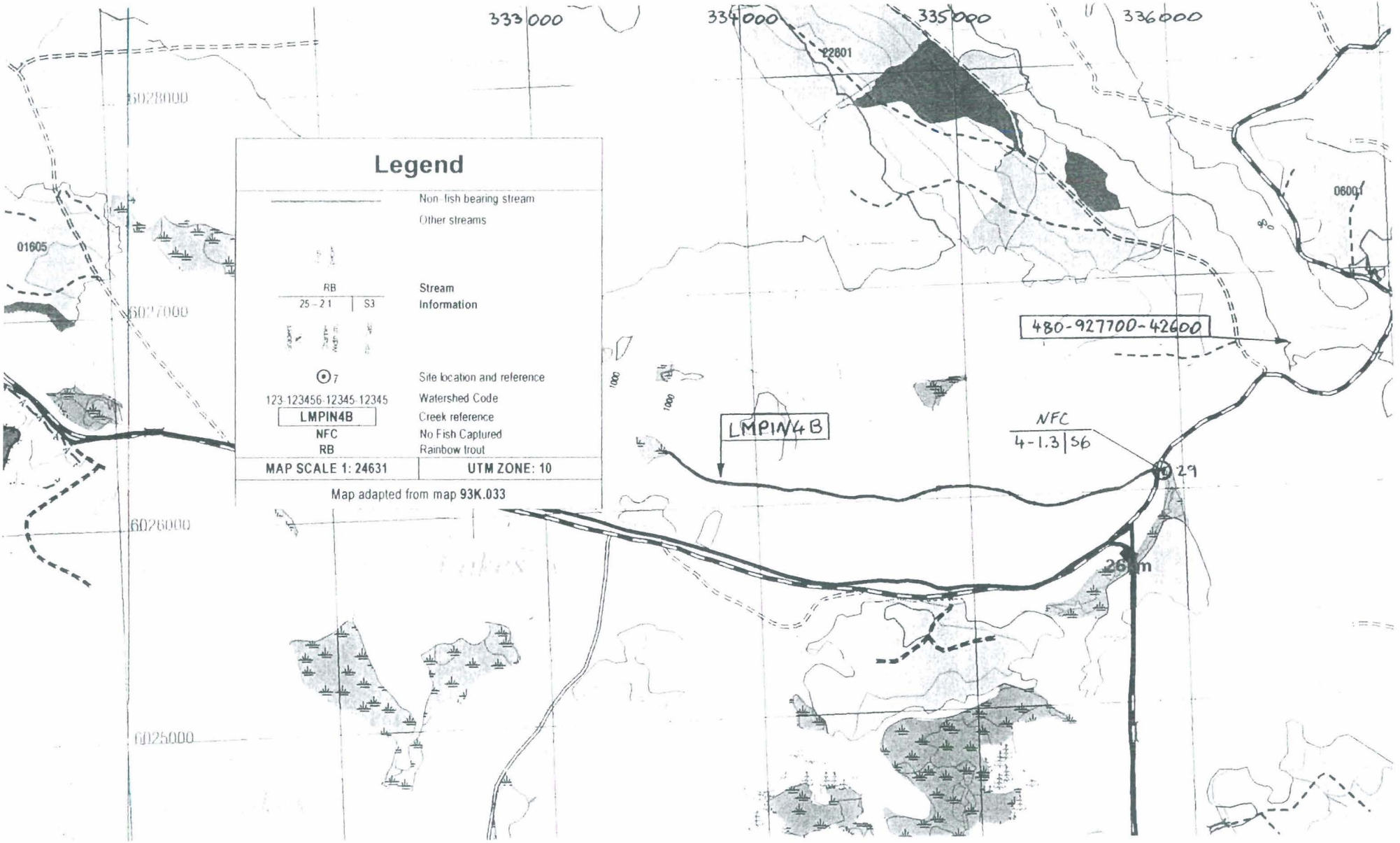
Map 6 of 15

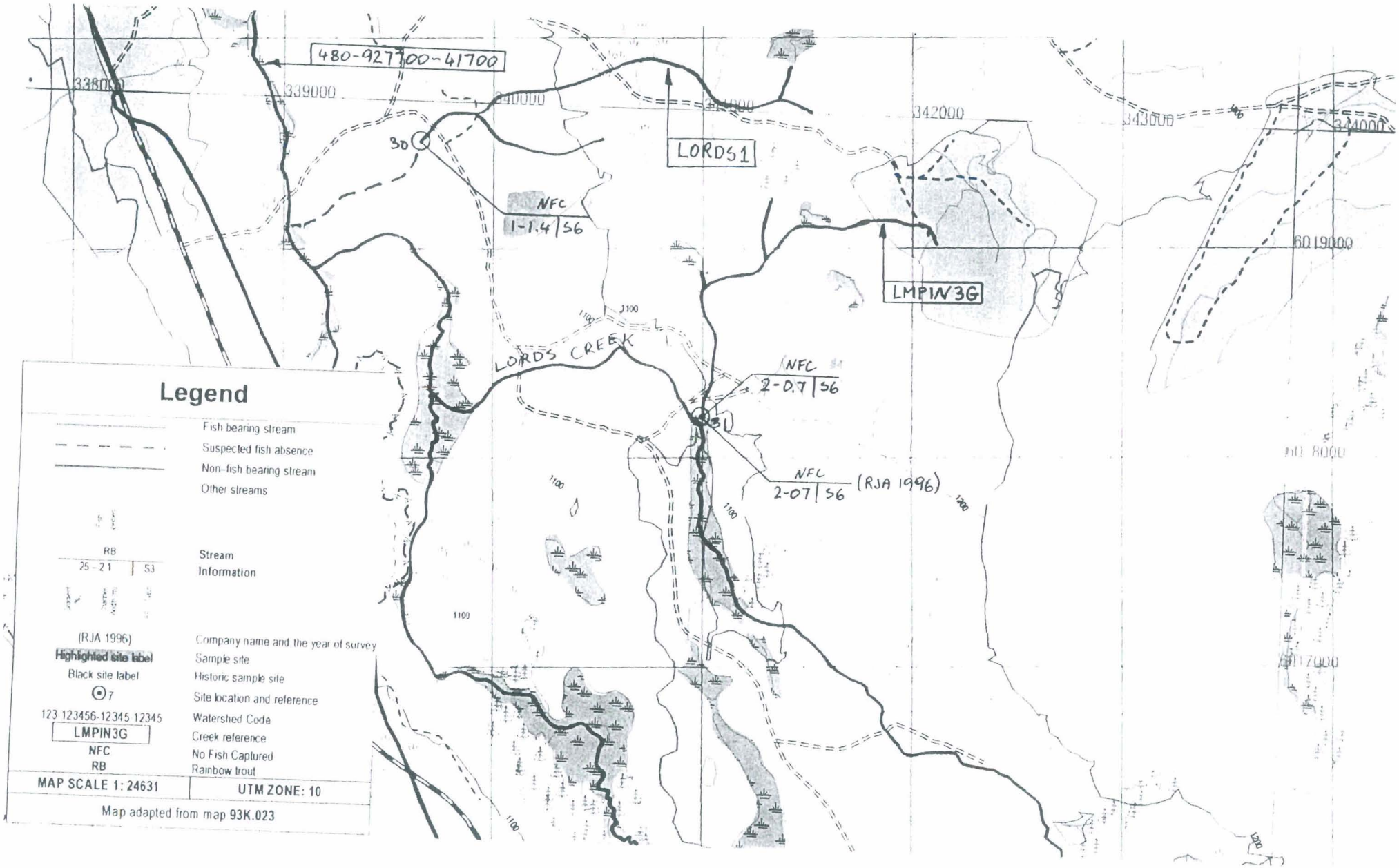

34554
480-927700
NS
NVC
NCD
26
02504 BABL
6024000
6023000
6022000
345 000
346 000
347 000
348 000
349 000
Legend
Non-fish bearing stream
Other streams
Fish Species
RB
25 - 2.1
S3
Stream Information
Gradient (%)
Channel Width (m)
FPC Class
7
Site location and reference
180-545300-45700
Watershed Code
83006
Creek reference
00131CHES
Waterbody Identifier
NFC
No Fish Captured
NS
Not Sampled
NVC
No Visible Channel
MAP SCALE 1: 24631
UTM ZONE: 10
Map adapted from map 93K.034

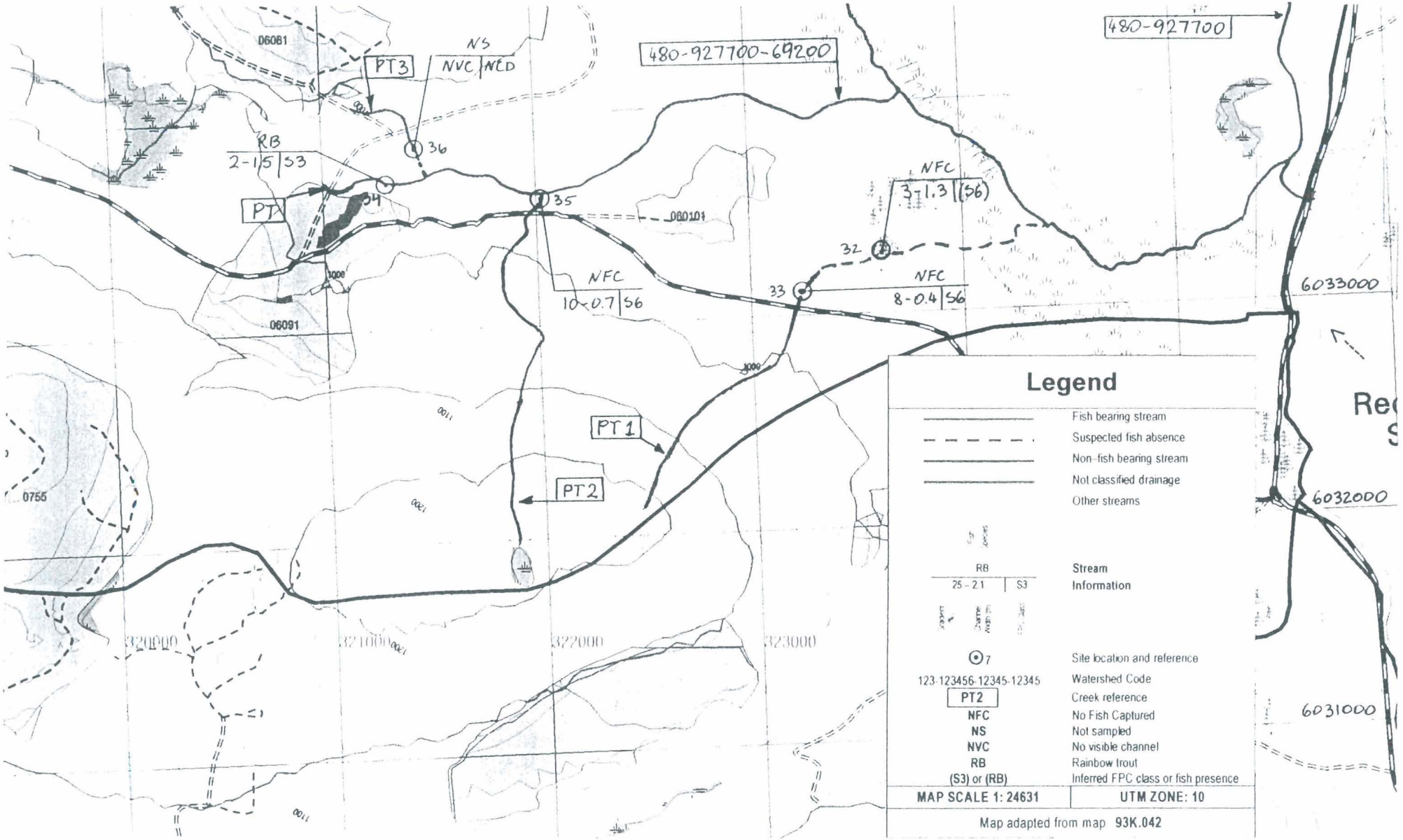
Map 7 of 15

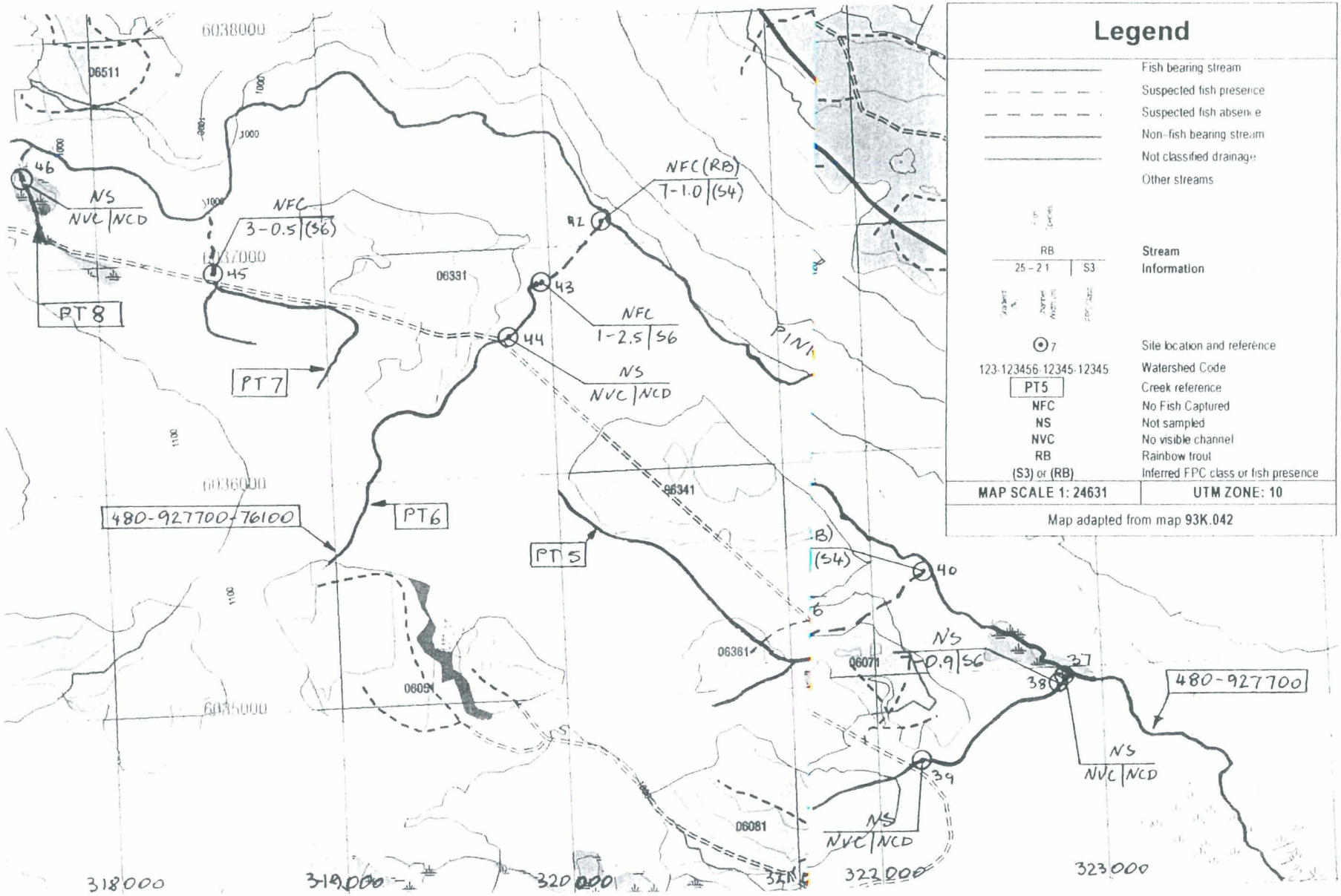

Legend
Fish bearing stream
Suspected fish presence
Suspected fish absence
Non-fish bearing stream
Other streams
RB
25 - 2.1 | S3
Stream Information
(FINS 1999)
Company name and the year of
Highlighted site label
Sample site
Black site label
Historic sample site
Site location and reference
123-123456-12345-12345
Watershed Code
34005
Creek reference
Height of falls (m)
NFC
No Fish Captured
RB
Rainbow trout
(S3) or (RB)
Inferred FPC class or fish presence
MAP SCALE 1: 24631
UTM ZONE: 10
Map adapted from map 93K.034
NFC
4-1.2 | S6
(FINS 1999)
NFC
10-1.8 | S6
NFC
8-0.4 | S6
(FINS 1999)
28
F
27
09716
34701
NFC (RB)
8-1.7 | (S3)
480-927700-23300-36300
480-927700-23300
MARLIN CREEK
352000
353000
354000
355000
356000
357000

Map 8 of 15

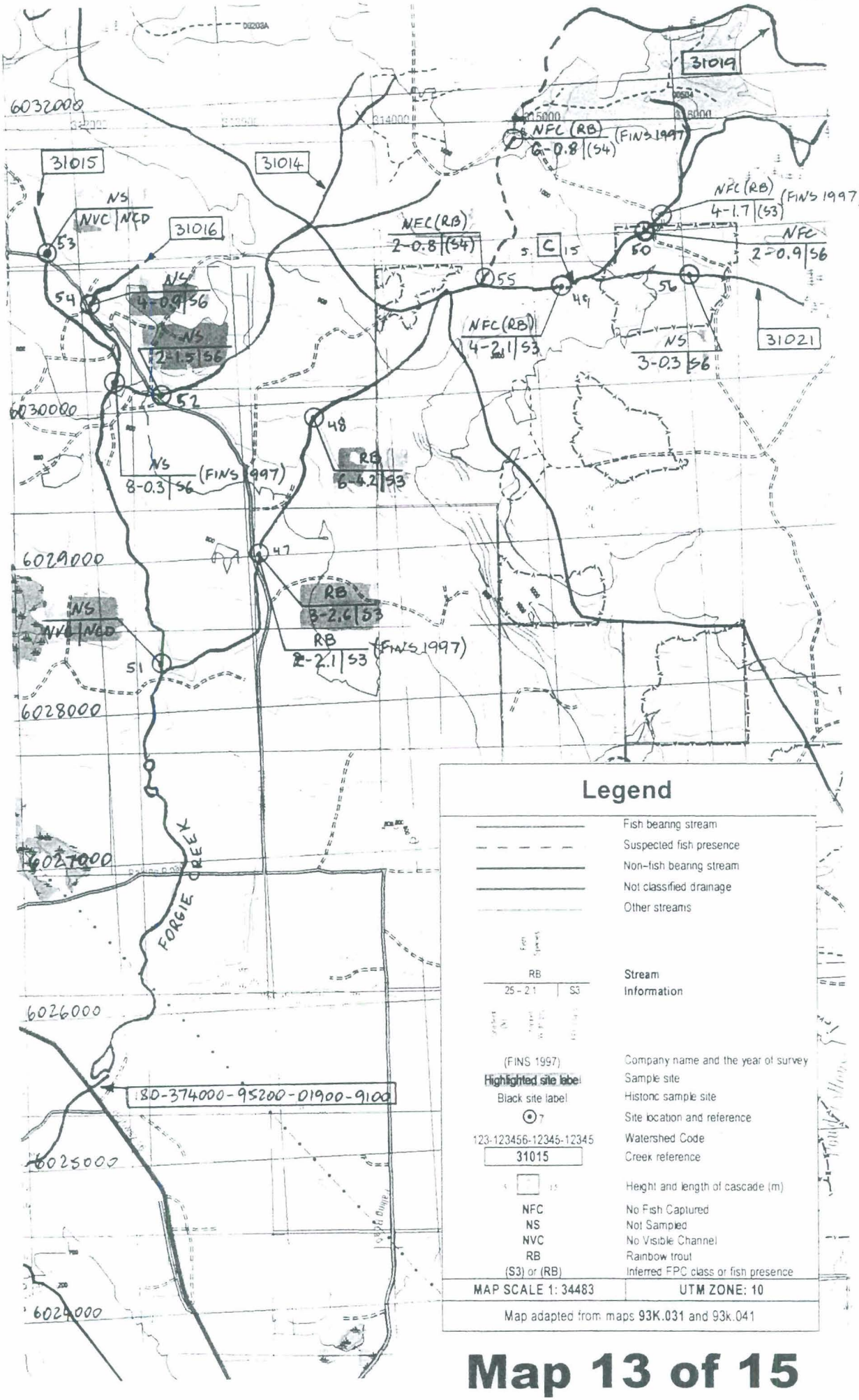

333000
334000
335000
336000
6028000
6027000
6026000
6025000
01605
22801
06001
480-927700-42600
LMPIN4B
NFC
4-1.3|S6
29
26m
Legend
Non-fish bearing stream
Other streams
RB
25-21 | S3
Stream Information
7
Site location and reference
123-123456-12345-12345
Watershed Code
LMPIN4B
Creek reference
NFC
No Fish Captured
RB
Rainbow trout
MAP SCALE 1: 24631
UTM ZONE: 10
Map adapted from map 93K.033


480-927700-41700
LORDS1
LMPIN3G
LORDS CREEK
NFC
1-1.4|56
NFC
2-0.7|56
NFC
2-07|56 (RJA 1996)
30
31
338000
339000
340000
342000
343000
344000
6019000
6017000
1100
1120
1160
Legend
Fish bearing stream
Suspected fish absence
Non-fish bearing stream
Other streams
RB
25-21 | S3
Stream
Information
(RJA 1996)
Company name and the year of survey
Highlighted site label
Sample site
Black site label
Historic sample site
7
Site location and reference
123 123456-12345 12345
Watershed Code
LMPIN3G
Creek reference
NFC
No Fish Captured
RB
Rainbow trout
MAP SCALE 1: 24631
UTM ZONE: 10
Map adapted from map 93K.023


480-927700
480-927700-69200
PT3
NS
NVC | NED
RB
2-1.5 | S3
PT
36
35
34
32
33
NFC
3-1.3 | (S6)
NFC
10-0.7 | S6
NFC
8-0.4 | S6
080101
06081
06091
0755
PT1
PT2
6033000
6032000
6031000
320000
321000
322000
323000
Legend
Fish bearing stream
Suspected fish absence
Non-fish bearing stream
Not classified drainage
Other streams
RB
25 - 2.1 | S3
Stream Information
7
Site location and reference
123-123456-12345-12345
Watershed Code
PT2
Creek reference
NFC
No Fish Captured
NS
Not sampled
NVC
No visible channel
RB
Rainbow trout
(S3) or (RB)
Inferred FPC class or fish presence
MAP SCALE 1: 24631
UTM ZONE: 10
Map adapted from map 93K.042


Legend
Fish bearing stream
Suspected fish presence
Suspected fish absence
Non-fish bearing stream
Not classified drainage
Other streams
RB
25 - 2 1 | S3
Stream Information
7
Site location and reference
123-123456-12345-12345
Watershed Code
PT5
Creek reference
NFC
No Fish Captured
NS
Not sampled
NVC
No visible channel
RB
Rainbow trout
(S3) or (RB)
Inferred FPC class or fish presence
MAP SCALE 1: 24631
UTM ZONE: 10
Map adapted from map 93K.042
6038000
6037000
6036000
6035000
318000
319000
320000
323000
06511
06331
06341
06381
06071
06091
06081
46
45
44
43
42
40
39
38
37
NS
NVC | NCD
NFC
3-0.5 | (S6)
NFC (RB)
7-1.0 | (S4)
NFC
1-2.5 | S6
NS
7-0.9 | S6
PT8
PT7
PT6
PT5
480-927700-76100
480-927700

Map 12 of 15



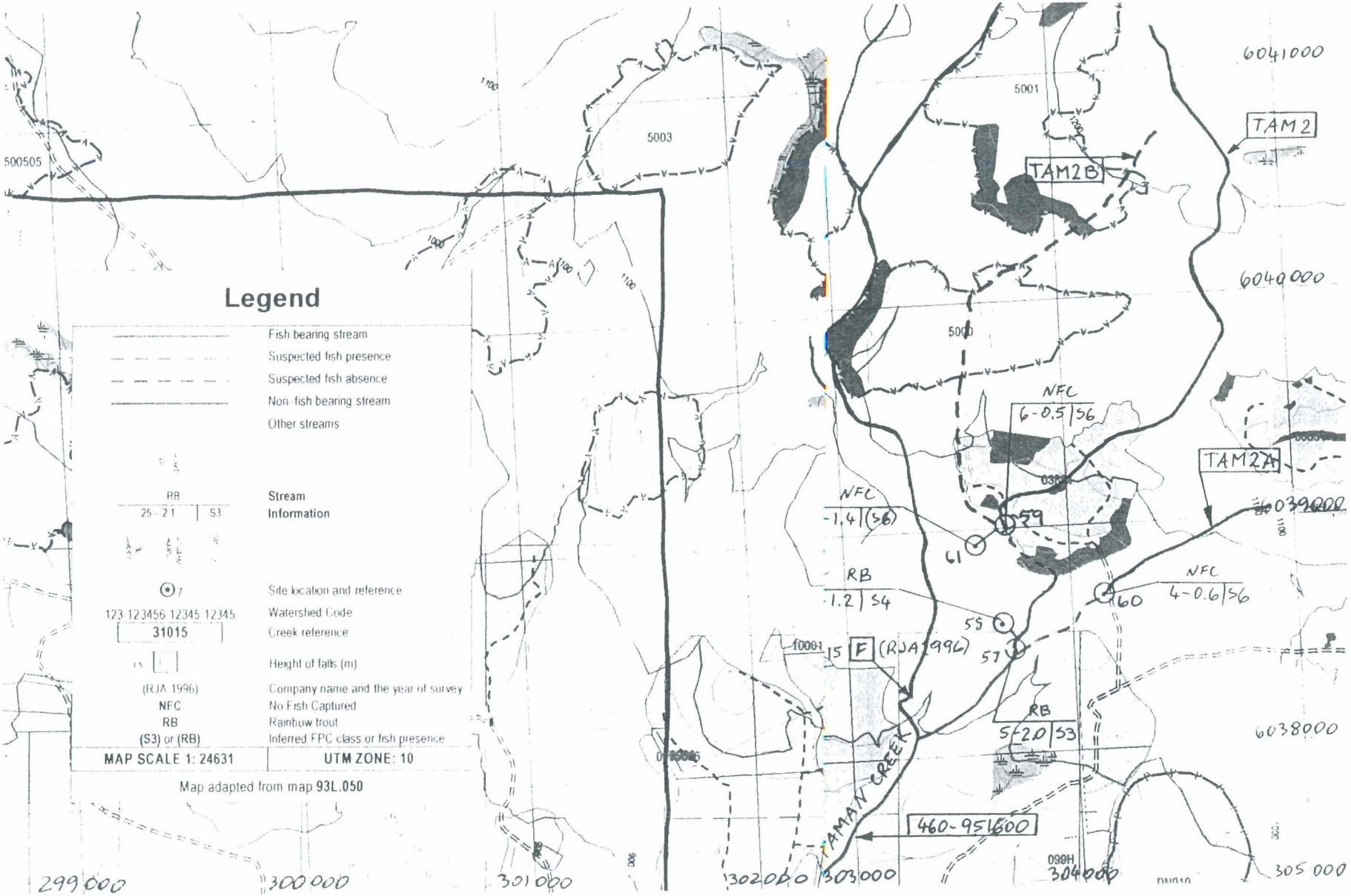
Legend

	Fish bearing stream
	Suspected fish presence
	Non-fish bearing stream
	Not classified drainage
	Other streams
RB / 25 - 2.1 / S3	Stream Information
(FINS 1997)	Company name and the year of survey
Highlighted site label	Sample site
Black site label	Historic sample site
⊙7	Site location and reference
123-123456-12345-12345	Watershed Code
31015	Creek reference
	Height and length of cascade (m)
NFC	No Fish Captured
NS	Not Sampled
NVC	No Visible Channel
RB	Rainbow trout
(S3) or (RB)	Inferred FPC class or fish presence

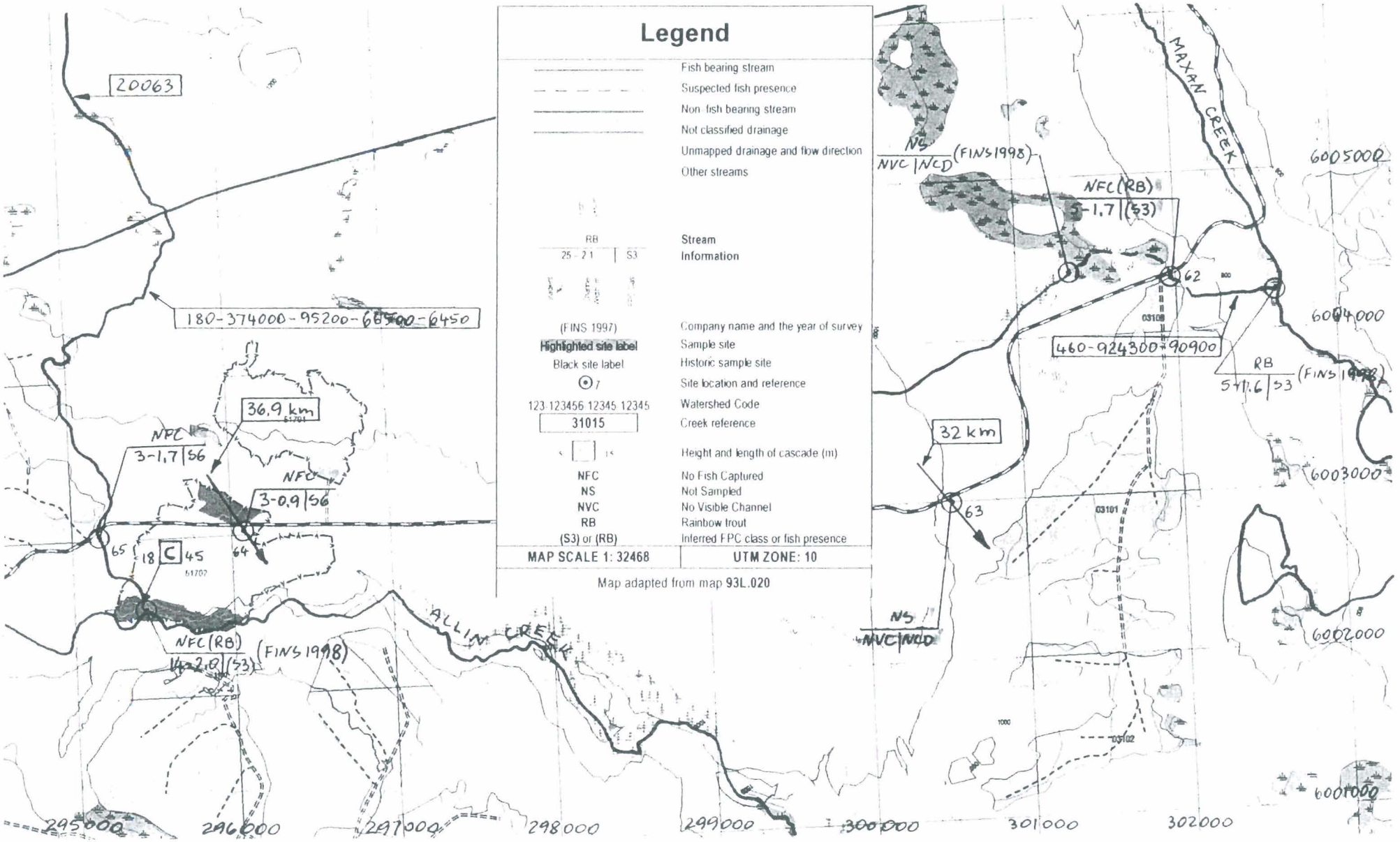
MAP SCALE 1: 34483 | UTM ZONE: 10

Map adapted from maps 93K.031 and 93k.041

Map 13 of 15


Legend
Fish bearing stream
Suspected fish presence
Suspected fish absence
Non-fish bearing stream
Other streams
RB
25 - 21 | S3
Stream Information
Site location and reference
123 123456 12345 12345
Watershed Code
31015
Creek reference
Height of falls (m)
(RJA 1996)
Company name and the year of survey
NFC
No Fish Captured
RB
Rainbow trout
(S3) or (RB)
Inferred FPC class or fish presence
MAP SCALE 1: 24631
UTM ZONE: 10
Map adapted from map 93L.050
TAM2
TAM2B
TAM2A
NFC
6-0.5|S6
NFC
-1.4|S6
RB
-1.2|S4
NFC
4-0.6|S6
RB
5-2.0|S3
460-951600
TAMAN CREEK
6041000
6040000
6039000
6038000
299000
300000
301000
302000
303000
304000
305000

Map 14 of 15


Legend
Fish bearing stream
Suspected fish presence
Non-fish bearing stream
Not classified drainage
Unmapped drainage and flow direction
Other streams
RB
25 - 2.1 | S3
Stream Information
(FINS 1997)
Company name and the year of survey
Highlighted site label
Sample site
Black site label
Historic sample site
Site location and reference
123-123456-12345-12345
Watershed Code
31015
Creek reference
Height and length of cascade (m)
NFC
No Fish Captured
NS
Not Sampled
NVC
No Visible Channel
RB
Rainbow trout
(S3) or (RB)
Inferred FPC class or fish presence
MAP SCALE 1: 32468
UTM ZONE: 10
Map adapted from map 93L.020
20063
180-374000-95200-68500-6450
36.9 km
NFC
3-1.7|56
NFC
3-0.9|56
65
18
C
45
64
NFC(RB)
4-2.0|53
(FINS 1998)
ALLIN CREEK
NS
NVC|NCD
(FINS 1998)
NFC(RB)
5-1.7|53
MAXAN CREEK
62
460-924300-90900
RB
5-1.6|53
(FINS 1998)
32 km
63
NS
NVC|NCD
6005000
6004000
6003000
6002000
6001000
295000
296000
297000
298000
299000
300000
301000
302000

Map 15 of 15