# Canada Aberta





## Northern River Basins Study























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NORTHERN RIVER BASINS STUDY PROJECT REPORT NO. 12

BURBOT COLLECTIONS,

SMOKEY, WAPITI AND PEACE RIVERS

OCTOBER AND NOVEMBER, 1992

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#### PREFACE:

The Northern River Basins Study was initiated through the "Canada-Alberta-Northwest Territories Agreement Respecting the Peace-Athabasca-Slave River Basin Study, Phase II - Technical Studies" which was signed September 27, 1991. The purpose of the Study is to understand and characterize the cumulative effects of development on the water and aquatic environment of the Study Area by coordinating with existing programs and undertaking appropriate new technical studies.

This publication reports the method and findings of particular work conducted as part of the Northern River Basins Study. As such, the work was governed by a specific terms of reference and is expected to contribute information about the Study Area within the context of the overall study as described by the Study Final Report. This report has been reviewed by the Study Science Advisory Committee in regards to scientific content and has been approved by the Study Board of Directors for public release.

It is explicit in the objectives of the Study to report the results of technical work regularly to the public. This objective is served by distributing project reports to an extensive network of libraries, agencies, organizations and interested individuals and by granting universal permission to reproduce the material.



## NORTHERN RIVER BASINS STUDY PROJECT REPORT RELEASE FORM

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Smoky, Wapiti and Peace Rivers, October and November, 1992, Edmonton, Alberta, Canada, June, 1993. Whereas the above publication is the result of a project conducted under the Northern River Basins Study and the terms of reference for that project are deemed to be fulfilled. IT IS THEREFORE REQUESTED BY THE STUDY OFFICE THAT: this publication be subjected to proper and responsible review and be considered for release to the public. F.J. Wrona, Ph.D., Science Director) Whereas it is an explicit term of reference of the Science Advisory Committee "to review, for scientific content, material for publication by IT IS HERE ADVISED BY THE SCIENCE ADVISORY COMMITTEE THAT; this publication has been reviewed for scientific content and that the scientific practices represented in the report are acceptable given the specific purposes of the project and subject to the field conditions encountered. SUPPLEMENTAL COMMENTARY HAS BEEN ADDED TO THIS PUBLICATION: [ ] Yes [ ] No (Dr. P. A. Larkin, Ph.D., Chair) Whereas it is the duty of the Operations Committee to attend to the day-today management of the Study on behalf of the Study Board, IT IS THEREFORE RECOMMENDED BY THE OPERATIONS COMMITTEE THAT: this publication be released to the public and it is reported that THIS PUBLICATION HAS BEEN REVIEWED BY THE HEALTH ASSESSMENT COMMITTEE AND SUBSEQUENTLY FORWARDED TO APPROPRIATE HEALTH AUTHORITIES: [ ] Yes [ ] No Whereas the Study Board is satisfied that this publication has been reviewed for scientific content and for immediate health implications. IT IS HERE APPROVED BY THE BOARD OF DIRECTORS THAT: this publication be released to the public, and that this publication be designated for: [ ] STANDARD AVAILABILITY [ ] EXPANDED AVAILABILITY

(Bev Burns, Co-chair)

(Peter Melnychuk, Co-Chair

## BURBOT COLLECTIONS SMOKY, WAPITI AND PEACE RIVERS OCTOBER AND NOVEMBER, 1992

## STUDY PERSPECTIVE

and other peoples Indigenous northern Canada have long considered burbot and particularly burbot liver a culinary delicacy. In lakes and burbot rivers. are aggressive carnivores at the top of the food web. potential They have the bioaccumulate and biomagnify contaminants to levels that make these fish unfit for human consumption. advisories Consumption have issued by the province of Alberta which recommend that the organs of burbot, including livers, not be eaten from fish caught in the upper reaches of the Peace River drainage and the Athabasca River upstream of Point.

This report describes the population characteristics of burbot caught in the Smoky River and downstream through the Wapiti and Peace rivers to a site above the Vermilion Chute near the Fox Lake Indian Reserve. Burbot were collected from ten sites below pulp mills, at traditional fishing areas, or near Indian Reserves. These fish will be analyzed for contaminants such as heavy metals (eg. mercury),

## Related Study Questions

- 1a) How has the aquatic ecosystem, including fish and/or other aquatic organisms, been affected by exposure to organochlorines or other toxic compounds?
- 4a) What are the contents and nature of the contaminants entering the system and what is their distribution and toxicity in the aquatic ecosystem with particular reference to water, sediments and biota?
- b) Are toxins such as dioxins, furans, mercury, etc. increasing or decreasing and what is their rate of change?
- 8) Recognizing that people drink water and eat fish from these river systems, what is the current concentration of contaminants in water and edible fish tissue and how are these levels changing through time and by location?
- 12) What native traditional knowledge exists to enhance the physical science studies in all areas of enquiry?

pesticides, dioxins, furans, chlorophenols, PCB's and other contaminants.

In addition to providing information on the burbot population in these three rivers, the report lists sites that native peoples identified as traditional fish harvesting areas. Only 4 sites were identified for the Peace River from its confluence with the Smoky River to Vermilion Chute. No sites were identified on the Smoky or Wapiti rivers.

## **EXECUTIVE SUMMARY**

Burbot were collected between 24 October and 11 November, 1992, from the Wapiti, Smoky, and Peace rivers to determine the distribution of contaminants within this species throughout the NRBS study area. Three collection sites were located on the Smoky River, one on the Wapiti River, and six on the Slave River downstream from the Town of Peace River. Collection sites were located downstream from pulp mills.

In total, 157 burbot were collected using baited set lines and retained for contaminant analysis. Burbot collected from the Peace River ranged between 358 and 1043 mm TL and from 4 to 19 years. The longest burbot (1043 mm) was collected downstream from the Diashowa Mill and represents a length record for burbot in Alberta. Burbot from the Wapiti River had higher growth rates than burbot sampled from the Smoky or Peace rivers. Preferred habitats of burbot were those with moderately deep or deep water or low velocity such as side-channels, snyes and back eddies.

Few traditional fishing sites on the rivers were identified by native liaisons. Between the Keg and Wolverine rivers, the Peace River has several deep holes and is a traditional fish area. The only other traditional fishing areas identified were the mouths of the Wabasca, Lawrence, and Wentzel rivers and the Vermilion Chutes.

## **Acknowledgements**

A number of individuals contributed to the successful completion of this project. Special thanks are extended to Mr. Brad Kachuk, Alberta Forestry, Lands and Wildlife, Fish and Wildlife Division, Native Liaison Officer, Peace River Region for his provision of community contacts and logistical advice. Also, appreciation is extended to the Grande Prairie, Peace River and High Level Fish and Wildlife offices (D. Matier, D. Walty and J. Gerwing, respectfully) for the use of freezer space. We are especially grateful to Mr. G. Chalafioux (Resource Management Assistant) for his capable assistance and perserverence in the field. Denis Siverston, Steve Auger and Daniel Loonskin are acknowledged for their assistance in the field collections on the Peace River at Carcajou, John d'Or Prairie and Fox Lake respectively.

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## 1.0 INTRODUCTION

Forestry development in northern Alberta has potential to significantly affect fish populations and habitat (D.A. Westworth & Associates Ltd. 1992). A number of pulp mills presently operate within the Peace, Athabasca and Smoky River drainages. Ultimately, proposed expansion of the pulp and paper industry will require the construction of additional mills along these river systems. Discharge from extant pulp and paper mills, although subject to rigorous pollution standards, has the potential to exceed them. Expansion of the pulp and paper industry will release additional contaminants to northern river systems. The fate of environmental contaminants such as dioxins and furans in aquatic ecosystems and their cumulative effects is of general concern to northern residents who rely on fish as part of their diet.

Contaminants released by pulp and paper mills have been shown to bioaccumulate through aquatic food chains and affect wildlife. Bioaccumulation and biomagnification of environmental contaminants through aquatic ecosystems ultimately affects top predators. For example, preliminary research suggests that adult burbot (*Lota lota*), which prey on fish and fish eggs, bioaccumulate dioxins (W. Koning, Alberta Environment, pers. comm.).

The Northern River Basins Study (NRBS) has, as one of its main objectives, the determination of contaminant levels in fish throughout the Peace, Athabasca and Slave rivers. Burbot sampled from the Peace and Athabasca drainages in 1990 had elevated levels of contaminants (Terms of Reference). Knowledge of the distribution of contaminants in these rivers is limited.

## 1.1 Objectives

- D. A. Westworth and Associates Ltd. was retained by the NRBS to conduct a special collection of burbot to determine the distribution of contaminants within this species throughout the NRBS study area. Specific study objectives were:
  - a) to complete a geographic overview of the distribution of contaminants in this species
  - b) to solicit local community knowledge (particularly natives) in terms of site selection.

## 2.0 STUDY AREA

Burbot were collected from the Peace, Smoky, and Wapiti rivers (Table 1). Six collection sites were located on the Peace River downstream from the Town of Peace River (Figure 1). Only one collection site was located on the Wapiti River, a major tributary of the Smoky River. The Smoky River, which is a major tributary of the Peace River, was sampled at three collection sites (Figure 1). Collection sites were located downstream from existing pulp mills and were below the zone of complete effluent mixing.

Table 1. Location of burbot collection sites along the Smoky, Wapiti, and Peace Rivers.

River	Site	General Location	Legal Land Description	NTS Map Sheet
	Α	Canfor main haul road bridge crossing	15-30 - 67 - 6 W6	83L/15
Smoky	В	Highway 34 bridge crossing	9-17 - 72 - 2 W6	83M/1
_	С	Near Watino (Hwy 49 bridge crossing)	8-34 - 77 - 24 W6	83N/12
Wapiti	D	Below Proctor & Gamble Cellulose Mill	2-24 - 70 - 5 W6	83M/2
	F	Below Diashowa Canada Co. Ltd.	13-31 - 85 - 20 W5	84C/6
	G	Near mouth of Notikewin River	6-35 - 95 - 20 W5	84F/6
	Н	Near Carcajou	11-14 - 101 - 19 W5	84F/14-15
Peace	ı	Near Beaver Ranch Indian Reserve	11-14 - 101 - 19 W5	84J/5
	J	Near John d'Or Prairie Indian Reserve	14-15 - 108 - 7 W5	84J/6
	K	Near Fox Lake Indian Reserve	4-35 - 9 - 4 W5	84J/8-10

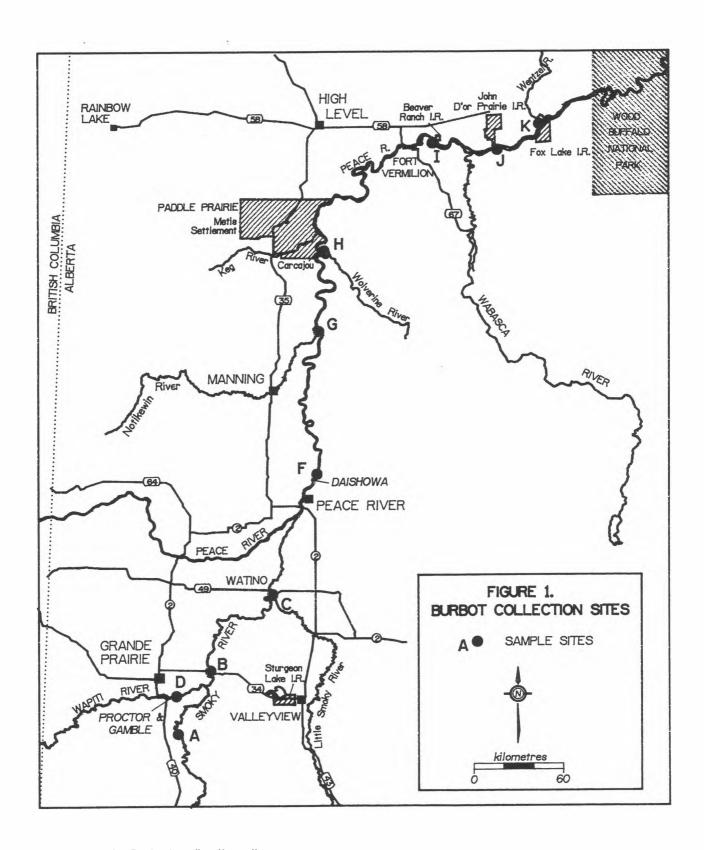


Figure 1. Burbot collection sites.

## 3.0 METHODS

## 3.1 Sample Collection

Burbot were collected from 24 October to 11 November 1992 from three locations within each of the ten collection sites within the study area (Table 1, Appendix A). Each collection location was assigned a character code and a numeric sub-code (with 1 being furthest downstream) (Appendix A). For example, site F2 referred to the middle collection site on the Peace River below Diashowa. Where possible, information on traditional fishing sites was obtained in consultation with local native residents.

All fish were collected using set lines constructed from 22.7 kg braided dacron line to which were attached 20 size 1/0 hooks at 0.6 m intervals and baited with commercial smetts (Osmerus mordaxi) (Photo 1). At each collection site, 7 to 14 set lines were cast by hand and fished near to the river bed. Each line was anchored in place with a burlap sack filled with cobble tied to its end and set in the river. The free end was secured to shore. Set lines at each sample location were set during the day and fished overnight. An attempt was made to apportion sampling effort evenly between the three locations at each collection site. The following information was recorded for each fish captured and processed (Photo 2) (Appendix B and C):

- Sampling effort (to the nearest 1/4 h) Number of hooks fished
- Location of set

- Habitat fished
- Number and species captured
   Time of capture
- Weight (to the nearest g)
- Length (to the nearest mm)

Gross pathology of burbot was also examined. Results of the examination were recorded on data sheets supplied by the Northern River Basins Study office (Appendix D).

Processed burbot were bagged individually in contaminant free FDA approved plastic baas and placed immediately in a freezer to await transport to Alberta Environment in Edmonton. Each bag was labelled with the following information:

• Sample Number

Species

• Length

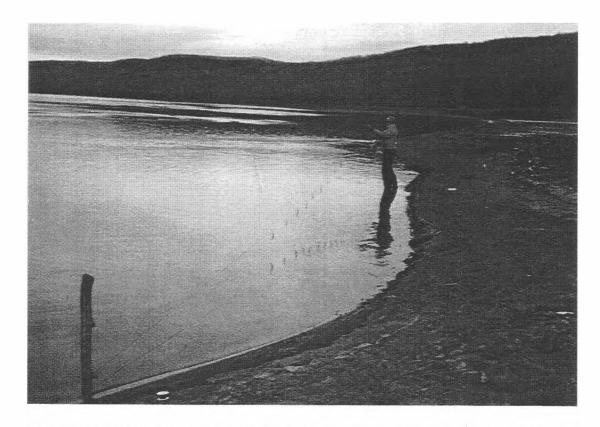
River

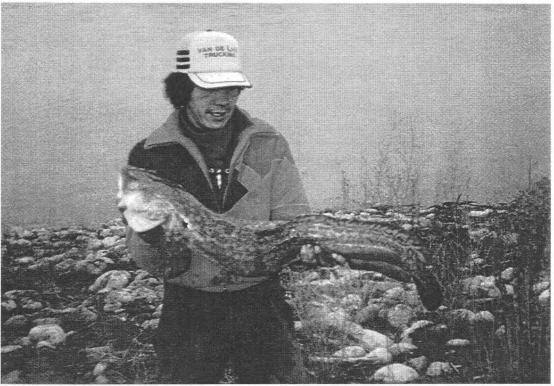
Collection site

• Date

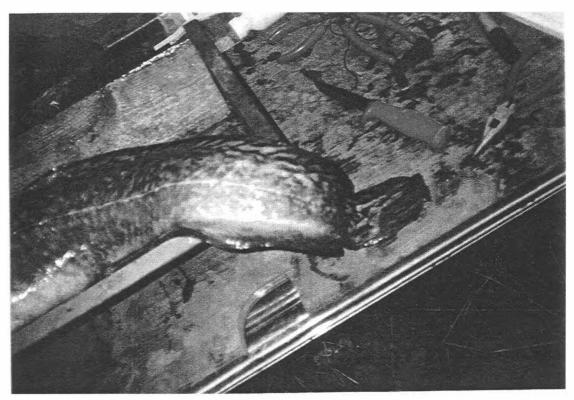
Collector name(s)

Sagittal otoliths were removed from each burbot during processing and stored in a whirlpak sample bag that contained a solution of 10% glycerol and 90% alcohol. Otoliths were assigned ages as described by Mackay et al. (1990). Fish were assigned ages blindly (without the individual assigning ages having prior knowledge of the size or sample number of the fish from which the otolith was removed).





**Photo 1.** Resource Management Assistant preparing to throw baited set line into river (top photo) and holding the burbot (1043 mm TL) caught downstream from the Diashowa Mill (Bottom photo).



**Photo 2.** Equipment used for processing a captured burbot. Note abrasion from the river bottom on the burbot.

### 3.2 Data Analysis

Catch data were analyzed using descriptive statistics. Length-frequency histograms were generated and mean length-at-age determined for burbot from each of the three rivers sampled. Weight-length data of burbot were plotted for each river to determine the presence of outlier sample points (potential sources of error), correlation co-efficients, and the equations describing the relationship between length and weight for burbot from each river. Data were log transformed to reduce variability in the relationship between length and weight for each river.

Although not required by the Terms of Reference (Appendix E), it was felt that additional analysis might provide additional insight into factors which may affect the distribution of burbot within the Peace, Smoky, and Wapiti rivers. To determine differences in growth rate between burbot populations sampled in the three rivers, an analysis of covariance (ANCOVA) was completed on the slope of the regression lines that described the relationship between legth and weight. Catch-per-unit-effort (CPUE) was calculated for burbot for each set line fished based on the number of burbot captured per one hundred hook hours fished. CPUE was used to describe preferred habitats of burbot.

## 4.0 RESULTS AND DISCUSSION

In total, 157 burbot were captured from ten collection sites and retained for contaminant analysis (Table 2). Northern pike ( $Esox\ lucius$ ), walleye ( $Stizostedion\ vitreum$ ) and goldeye ( $Hiodon\ alosoides$ ) were caught incidentally (n = 19, 7, and 2 respectively) (Appendix B).

Burbot comprised 85% of the total catch which demonstrated the species-specific nature of the sampling method used. The highest CPUE (0.82 burbot per 100 hook-h) was recorded at the Wapiti River (Table 2, Appendix C). Preferred habitats, as indicated by CPUE, were those with depth and/or low velocity such as side-channels, snyes and back eddies (Appendix C).

**Table 2.** Catch-per-unit-effort (CPUE) (number/100 hook hours) by species and site during fall, 1992.

	ence	No. of	Effort		Co	atch <sup>a</sup>		BURB
River	Site	Sets	(hook-h)	BURB	NRPK	WALL	GOLD	CPUE
Smoky	Α	7	2270	15	0	0	0	0.66
	В	7	2820	10	0	0	0	0.36
	С	12	3711	18	0	0	0	0.49
	Total	26	8801	43	0	0	0	0.21
Wapiti	D	7	2673	20	0	0	0	0.75
	Total	7	2673	20	0	0	0	0.75
Peace	F	13	6123	19	4	0	0	0.31
	G	12	5785	13	5	1	1	0.39
	Н	13	5089	20	3	1	0	0.41
	I	12	4973	17	2	1	1	0.34
	J	13	5199	9	4	2	0	0.17
	K	14	5615	16	1	2	0	0.29
	Total	77	32784	94	19	7	2	0.29
TO	TAL	110	44258	157	19	7	2	0.36

Burb - burbot; NRPK - northern pike; WALL - walleye; GOLD - goldeye

Burbot from the Peace River had the greatest range in total length (358 - 1043 mm TL) (Figure 2). The longest individual (1043 mm) was collected downstream from the Diashowa Mill and represents a length record for this species in the province (Nelson and Paetz 1992). Burbot captured in the Smoky River were shorter than those of the Wapiti and Peace rivers. Almost 80% of burbot collected from the Smoky River ranged from 430 to 530 mm TL (Figure 2). The relationship between length and body weight for burbot from the three rivers is shown in Figure 3.

b Includes individuals observed (i.e. escaping) while retrieving the line.

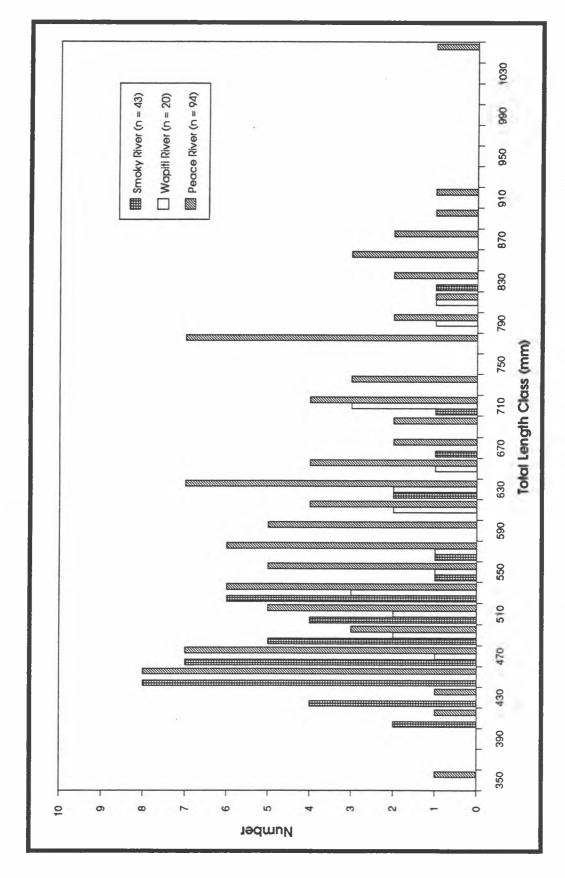
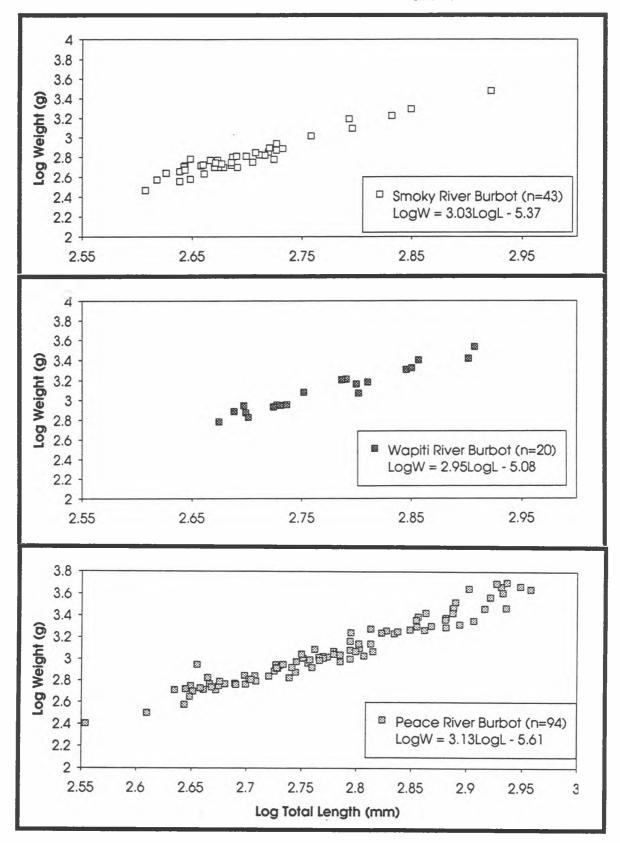


Figure 2. Total length-frequency distribution of burbot sampled from the Smoky, Wapiti, and Peace Rivers.



**Figure 3.** Log length-log weight regression for burbot sampled from the Smoky, Wapiti, and Peace rivers.

Burbot collected from the ten sites ranged in age from 4 to 19 years. Burbot in Alberta mature after age 3 (Nelson and Paetz 1992), and thus it is likely that only adults were captured during this study. The median ages for burbot from the Smoky, Wapiti, and Peace rivers were 9, 10 and 11 years, respectively (Table 3). The oldest burbot were collected from the Peace River.

**Table 3.** Mean length-at-age (mm) of burbot collected from the Smoky, Wapiti, and Peace rivers. (Sample size denoted in brackets).

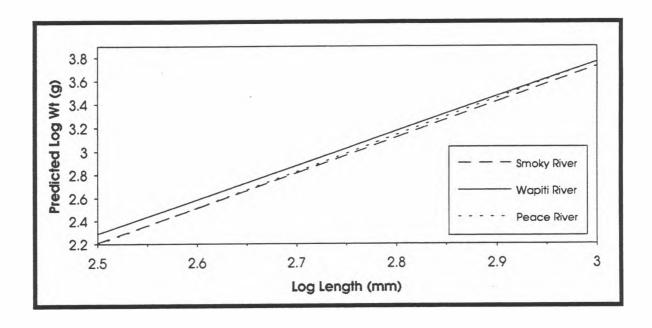
		Length (mr	n)	Age		Length (mr	n)
Age	Smoky	Wapiti	Peace	Age	Smoky	Wapiti	Peace
4	405 (1)	-	•	12	640 (3)	789 (1)	703 (10)
5	445 (2)	-	383 (2)	13	835 (1)	808 (1)	717 (5)
6	452 (7)	501 (2)	463 (6)	14	-	-	797 (5)
7	-	504 (3)	468 (9)	15	-	-	801 (6)
8	469 (9)	-	492 (7)	16	-	-	-
9	478 (10)	524 (4)	541 (10)	17	-	-	888 (1)
10	533 (9)	645 (6)	600 (12)	18	-	-	907 (1)
11	621 (1)	656 (3)	634 (19)	19	51	-	1043 (1)

Growth rates differed significantly between all three rivers (Table 4 and Figure 4). Burbot from the Wapiti River were heavier at any given length than burbot sampled from the Smoky or Peace river (Figure 4). Mean length-at-age of burbot from the Wapiti River between ages 6 and 12 were greater than mean length-at-age of burbot from the other rivers except for age 9 burbot from the Peace River (Table 3).

Growth rates of burbot sampled from the Smoky, Wapiti and Peace rivers were lower than those recorded in central Alberta lakes (Boag 1989). This phenomenon has been recorded for riverine versus lake dwelling populations of burbot and likely reflects different thermal and environmental conditions in lakes and rivers. Higher growth rates exhibited by burbot from the Wapiti River suggests that the river may be more productive than either the Smoky or Peace river. Increased productivity of the Wapiti River may have resulted from the release of effluent from the pulp mill at Grande Prairie.

**Table 4.** The relationship (log<sub>10</sub> transformed) between length and weight of burbot from the Smoky, Wapiti, and Peace rivers.

River	Re	gression	Coefficient of	Sample	Calcu	lated F st	atistic
KIVE	slope	y-intercept	Determination	Size	Smoky	Wapiti	Peace
Smoky	3.03	-5.37	0.93	43	-	38.7	53.2
Wapiti	2.95	-5.08	0.95	20	38.7	-	103.9
Peace	3.15	-5.61	0.95	94	53.2	103.9	-



**Figure 4.** Predicted log length-log weight relationships for burbot sampled from the Smoky, Wapiti and Peace Rivers

During the course of the study it became evident that there may be fewer traditional fishing sites on the rivers than earlier thought. The present level of usage is declining through attrition of elders. This became apparent through conversations and personal observations (Table 5). Very few boats were seen at historic launch sites (e.g. Adams Landing) or throughout villages. It is highly recommended that a user survey be conducted to achieve a complete understanding of the degree of usage of the fishery resource in the Peace River.

Table 5. Summary of community contacts and obtained information for the special burbor collection project, fall 1992.

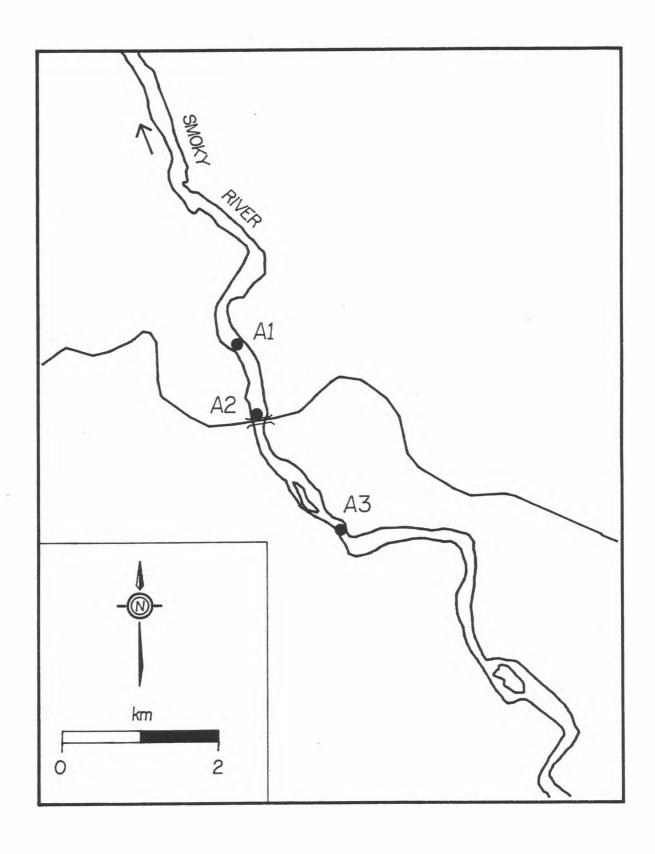
Collection Area	Person Contacted	Affillation	Phone No.	Comments
Smoky River at Hwy 34	Pierre Chowace	Slurgeon Lake Indian Reserve	524-3307	<ul> <li>very little (or no) lishing done at Hwy 34 bridge</li> <li>at best, fishing on the Smoky is at a recreational level</li> <li>most fishing on the Smoky is done between Grande Prairie &amp; Edson</li> <li>band members fish primarily at Sturgeon Lake</li> </ul>
Wapiti River below Proctor & Gamble	Brian McDonald Norris Bates	Proctor & Gamble Cellulose Local angler	539-8500	- provided essential access to collection sites - no lishing takes place below mill - an extremely co-operative individual - would like to be aware of study results - excellent walkeye fishing (8-10 lbs) at mouth of Bear R, but would not consider eating any
Smoky River at Watino	Norris Bates	Local angler	532-1933	532-1933 - excellent walleye lishing at mouth of L. Smoky
Peace River below Daishowa	lan McDonald	Daishowa Canada Co. Ltd.	624-7046	624-7046 - uncooperative in terms of providing access to river
	Dave Walty	Fish & Wildlife (Peace River)	624-6405	- stated that the river does not mix completely until 30 km downstream
Peace River at Notikewin	John Crisp	Paddle Prairie Metis Settlement	981-2227	<ul> <li>stated most people from Paddle Prairie &amp; Keg River lish at Notikewin Provincial Park</li> </ul>
Peace River at Carcajou	John Orisp Dennis Siverston	Paddle Prairie Meils Settlemeni Local quide/outfitter	981-2227	<ul> <li>stated most Metis living along the river fish between the Keg &amp; Wolverine rivers</li> <li>considers river water unfit for human consumption since construction of Daishowa pulp mill</li> </ul>
				- good walleye run in the Wolverine River - Wolverine River mouth a fayounte local fishing site
Peace River at Beaver Ranch Indian Reserve	Warren Matisskus	Beaver Ranch Indian Reserve	no phone	- some lishing at old boat launch - most lishing done at the Wabasca River
Peace River at John d'Or Prairle Indian Reserve	Steve Auger	John d'Or Prairle Indian Reserve	759-3920	<ul> <li>amount of fishing in the Peace River has decreased since the mill was constructed</li> <li>mouth of the Wabasca and Lawrence rivers are traditional fishing siles</li> <li>most fishing by band members done on near-by lakes</li> </ul>
Peace River at Fox Lake Indian Reserve	Daniel Loonskin	Fox Lake Indian Reserve	659-3921	- mouth of Wentzel River and Vermillon Chutes are traditional fishing sites

## 5.0 LITERATURE CITED

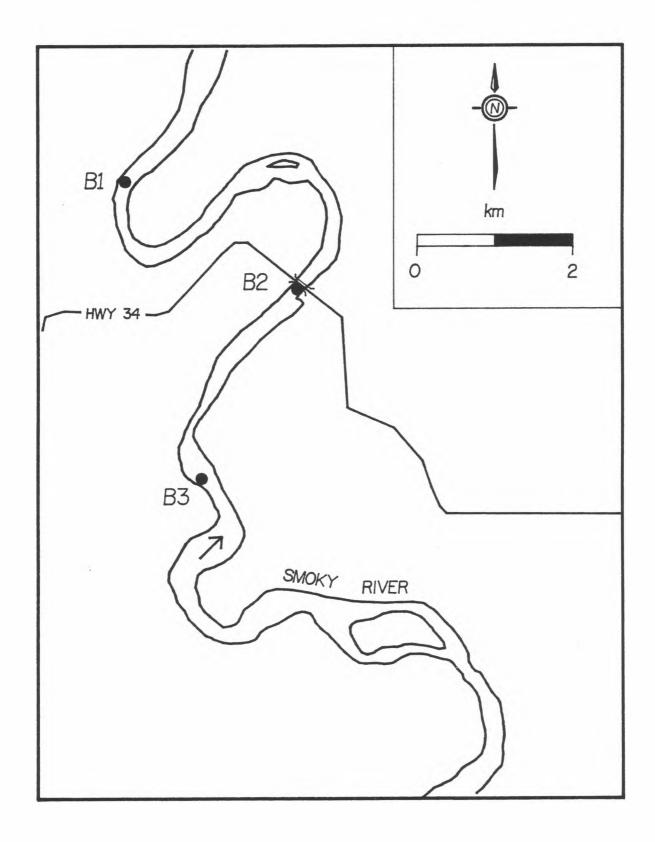
- **Boag, T.D. 1989.** Aspects of growth and fecundity of Burbot, <u>Lota lota L., in two Alberta lakes. M.Sc. Thesis, Dep. of Zoology, Univ. of Alberta, Edmonton, Alberta.</u>
- **D.A. Westworth & Associates Ltd.** 1992. An overview of potential forest harvesting impacts on fish and fish habitat in the northern boreal forests of Canada's prairie provinces. Prep. for Fisheries and Oceans.
- MacKay, W.C., G.R. Ash, and H.J. Norris (eds). 1990. Fish ageing methods for Alberta. R. L. & L. Environmental Services Ltd. in assoc. with Alberta Fish and Wildl. Div. and Univ. of Alberta, Edmonton. 113 pp.
- Nelson, J.S. and M.J. Paetz. 1992. The Fishes of Alberta, 2nd edition, University of Calagry Press and University of Alberta Press. 437 pp.

**Appendix A.** UTM Coordinates and 1:50,000 Maps of Burbot Collection Locations on the Smoky, Wapiti, and Peace rivers.

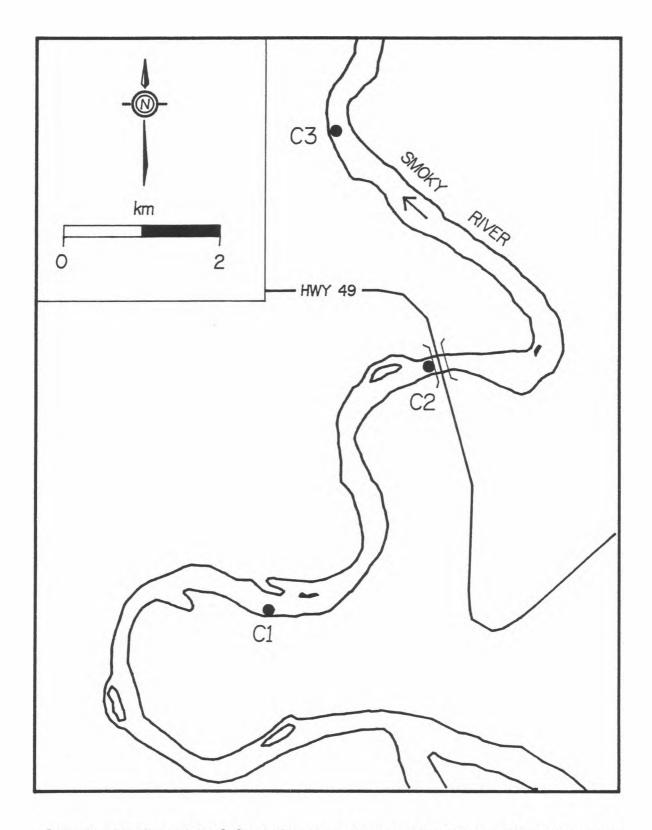
River	Site Location	UTM X	UTM Y
Smoky	A1	397250	6078450
	A2	397550	6077500
	A3	398550	6076150
	B1	417650	6123100
	B2	419900	6121800
	<b>B</b> 3	418500	6119300
	C1	458700	6171450
	C2	460850	6174400
	C3	459700	6177300
Wapiti	D1	397000	6104500
	D2	396400	6103800
	D3	394100	6102750
Peace	F1	491500	6544000
	F2	490300	6525500
	F3	489300	6495500
	G1	491250	6351550
	G2	492000	6349000
	G3	494700	6348550
	H1	492400	6404900
	H2	500530	6402020
	H3	493500	6400660
	l1	573400	6475300
	12	572200	6476450
	13	571800	6477700
	J1	616250	6473250
	J2	614450	6472850
	J3	612400	6473400
	K1	643150	6489300
	K2	641950	6486850
	K3	641600	6484700



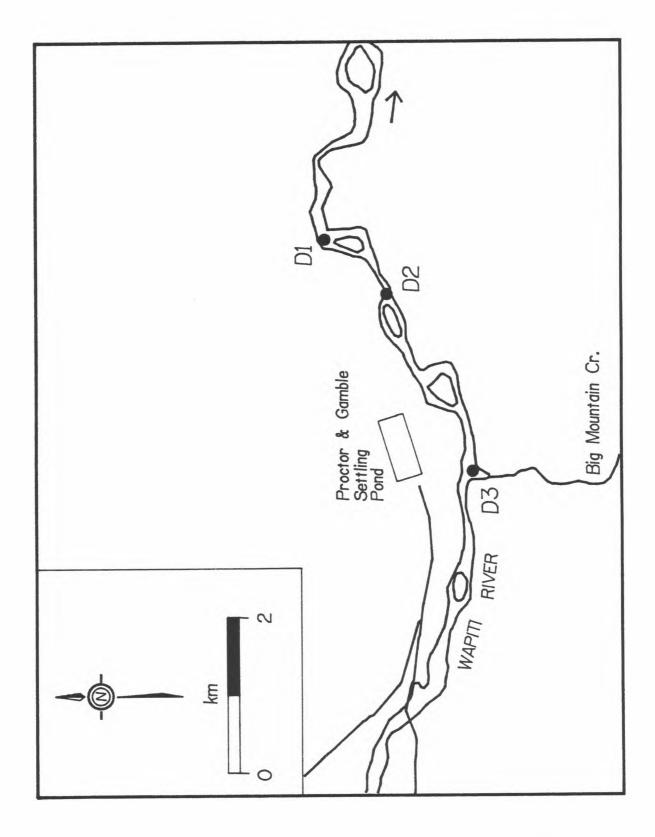
Collection locations at site A, Smoky River, near the Canfor main haul road bridge crossing.



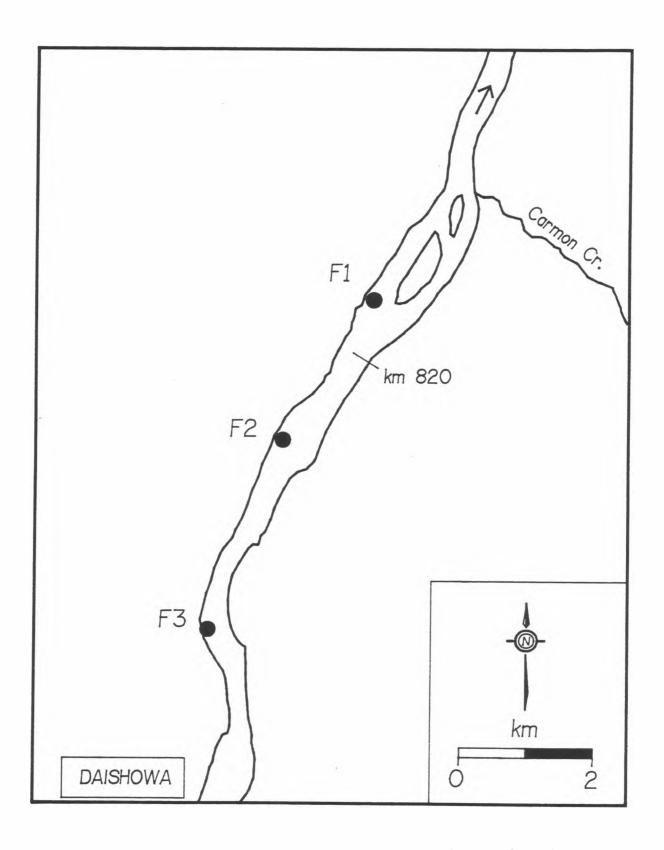
Collection locations at site B, Smoky River, near the Highway 34 bridge crossing.



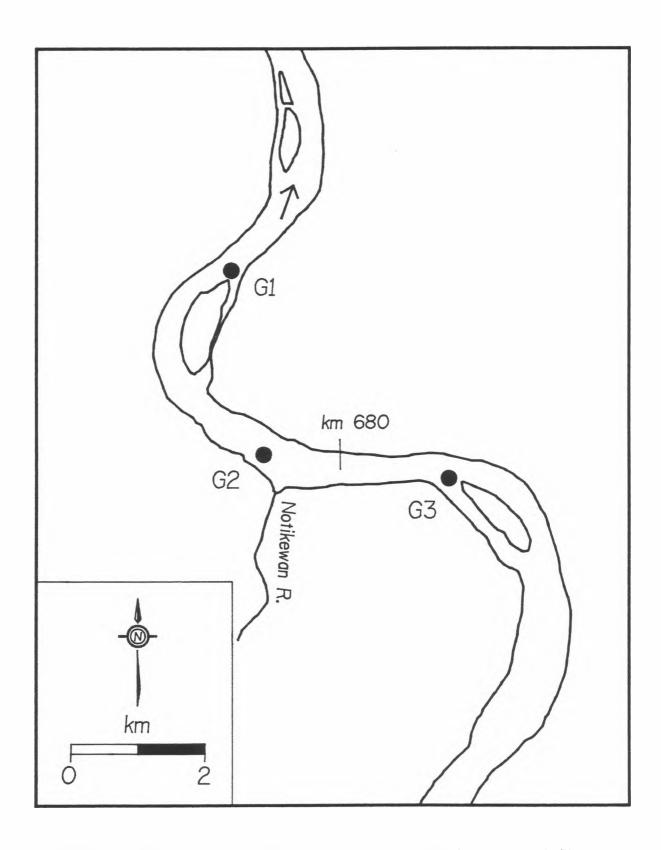
Collection locations at site C, Smoky River, near Watino at the Highway 49 bridge crossing.



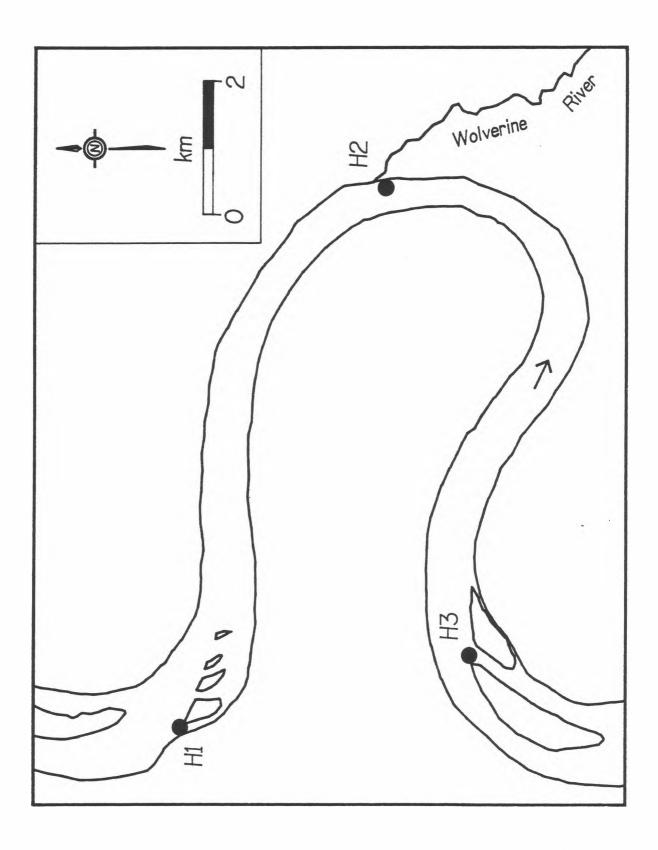
Collection locations at site D, Wapiti River, near the Proctor and Gamble Cellulose Mill..



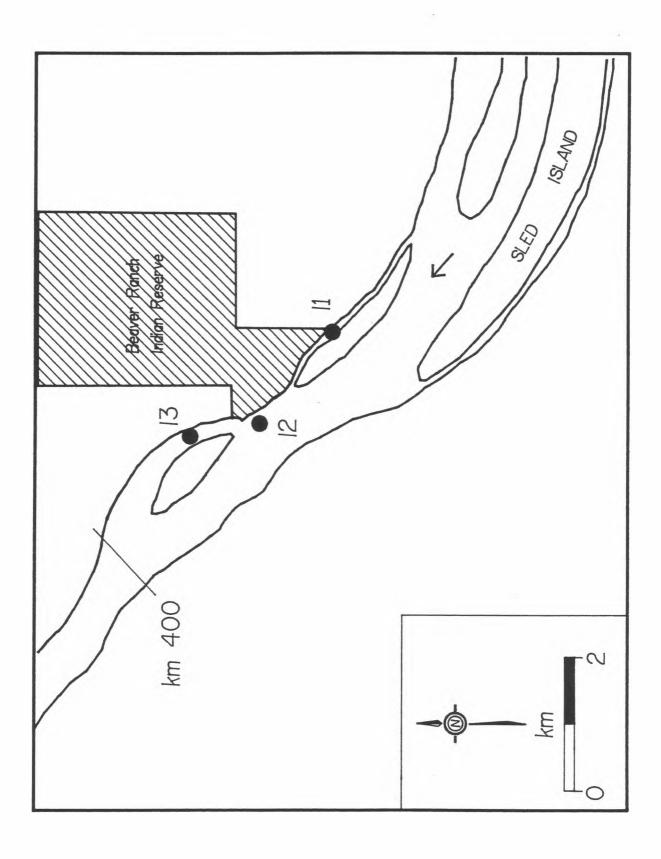
Collection locations at site F, Peace River, near Diashowa Canada Co. Ltd.



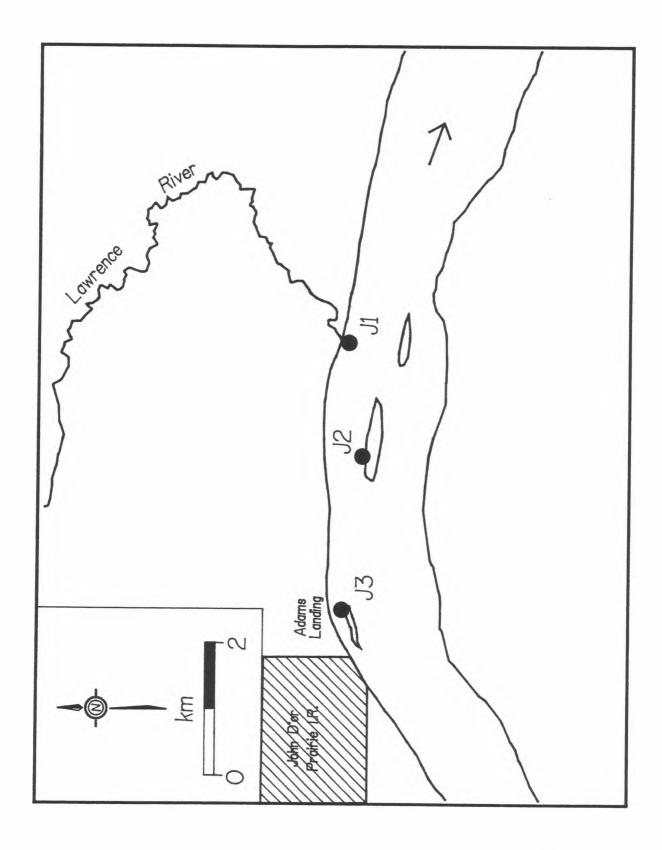
Collection locations at site G, Peace River, near the mouth of the Notikewin River.



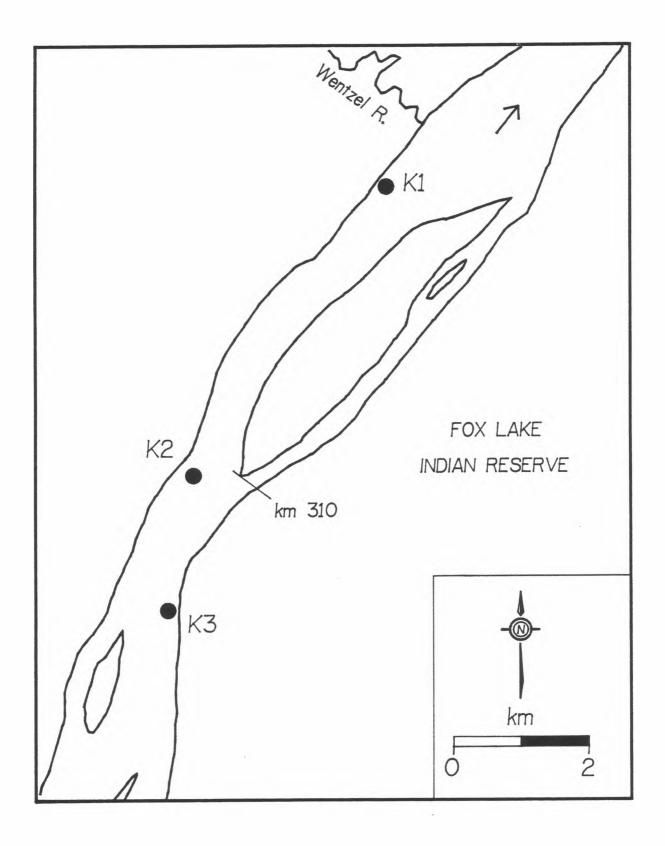
Collection locations at site H, Peace River, near Carcajou.



Collection locations at site I, Peace River, near Beaver Ranch Indian Reserve.



Collection locations at site J, Peace River, near John d'Or Prairie Indian Reserve.



Collection locations at site K, Peace River, near Fox Lake Indian Reserve.

### Appendix B. Special Burbot Collection Project Fish List

Sample No.	Species	Length (mm)	Weight (g)	Age	Collection Date	River	Site	Set No.	Comments
1	BURB	435	452	6	24-Oct-92	Smoky	B3	1	
2	BURB	525	784	10	24-Oct-92	Smoky	B2	1	
3	BURB	679	1684	12	24-Oct-92	Smoky	B2	1	
4	BURB	491	497	10	24-Oct-92	Smoky	B2	1	
5	BURB	468	498	8	24-Oct-92	Smoky	B2	1	
6	BURB	533	873	10	24-Oct-92	Smoky	B2	1	
7	BURB	439	506	6	24-Oct-92	Smoky	B2	1	
8	BURB	475	541	5	25-Oct-92	Smoky	B2	2	
9	BURB	545	895	9	25-Oct-92	Wapiti	D3	1	
10	BURB	530	850	9	25-Oct-92	Wapiti	D3	1	
11	BURB	520	661	8	26-Oct-92	Smoky	B2	4	
12	BURB	472	499	9	26-Oct-92	Smoky	B2	5	
13	BURB	565	1196	10	27-Oct-92	Wapiti	D1	1	
14	BURB	634	1177	10	27-Oct-92	Wapiti	D1	1	
15	BURB	498	876	6	27-Oct-92	Wapiti	D1	1	
16	BURB	488	769	9	27-Oct-92	Wapiti	D1	1	
17	BURB	500	744	7	27-Oct-92	Wapiti	D1	1	
18	BURB	719	2484	11	27-Oct-92	Wapiti	D3	3	
19	BURB	646	1512	10	27-Oct-92	Wapiti	D3	3	
20	BURB	798	2592	12	27-Oct-92	Wapiti	D3	3	
21	BURB	618	1619	11	27-Oct-92	Wapiti	D2	3	
22	BURB	709	2089	10	27-Oct-92	Wapiti	D2	3	
23	BURB	534	891	9	27-Oct-92	Wapiti	D2	1	
24	BURB	701	2006	10	27-Oct-92	Wapiti	D2	1	
25	BURB	631	1451	11	27-Oct-92	Wapiti	D2	1	
26	BURB	503	672	6	27-Oct-92	Wapiti	D2	1	
27	BURB	612	1587	10	27-Oct-92	Wapiti	D2	2	
28	BURB	808	3396	13	27-Oct-92	Wapiti	D2	2	
29	BURB	473	602	7	27-Oct-92	Wapiti	D2	2	
30	BURB	538	881	7	27-Oct-92	Wapiti	D2	2	
31	BURB	835	2994	13	28-Oct-92	Smoky	A2	1	
32	BURB	445	605	8	28-Oct-92	Smoky	<b>A</b> 3	2	
33	BURB	524	714	10	28-Oct-92	Smoky	<b>A</b> 3	2	
34	BURB	457	528	9	28-Oct-92	Smoky	A3	2	
35	BURB	477	496	9	28-Oct-92	Smoky	A3	2	
36	BURB	486	631	9	28-Oct-92	Smoky	A3	2	
37	BURB	485	525	9	28-Oct-92	Smoky	A1	1	
38	BURB	440	516	9	28-Oct-92	Smoky	A1	1	
39	BURB	533	744	12	28-Oct-92	Smoky	A1	2	
40	BURB	500	646	10	28-Oct-92	Smoky	A1	2	
41	BURB	455	516	9	28-Oct-92	Smoky	A1	2	
42	BURB	464	588	9	28-Oct-92	Smoky	A2	3	
43	BURB	440	516	6	28-Oct-92	Smoky	A2	3	
44	BURB	423	434	8	28-Oct-92	Smoky	A2	3	
45 46	BURB	471	586	8	28-Oct-92	Smoky	A3	1	
46 47	BURB	540	773	10	29-Oct-92	Smoky	C3	1	
47	BURB	530	598	9	29-Oct-92	Smoky	C2	2	

Sample No.	Species	Length (mm)	Weight (g)	Age	Collection Date	River	Site	Set No.	Comments
48	BURB	507	559	8	29-Oct-92	Smoky	C1	1	
49	BURB	490	<b>6</b> 46	10	29-Oct-92	Smoky	C1	1	
50	BURB	415	373	5	29-Oct-92	Smoky	C2	1	
51	BURB	435	358	8	29-Oct-92	Smoky	C1	2	
52	BURB	440	469	6	29-Oct-92	Smoky	C1	2	
53	BURB	458	428	6	29-Oct-92	Smoky	C2	3	
54	BURB	510	703	6	29-Oct-92	Smoky	C2	4	
55	BURB	625	1249	10	29-Oct-92	Smoky	C2	4	
56	BURB	405	291	4	31-Oct-92	Smoky	C3	4	
57	BURB	573	1045	10	31-Oct-92	Smoky	C3	3	
58	BURB	621	1562	11	31-Oct-92	Smoky	C3	3	
59	BURB	485	556	8	31-Oct-92	Smoky	C3	3	
60	BURB	445	379	6	31-Oct-92	Smoky	C1	4	
61	BURB	707	1960	12	31-Oct-92	Smoky	C1	4	
62	BURB	469	553	8	31-Oct-92	Smoky	C1	2	
63	BURB	514	665	9	31-Oct-92	Smoky	C1	2	
64	BURB	853	4601	14	31-Oct-92	Peace	F1	3	
65	BURB	531	765	11	31-Oct-92	Peace	F2	1	
66	BURB	776	3332	14	31-Oct-92	Peace	F1	1	
67	BURB	610	1089	11	31-Oct-92	Peace	F1	1	
68	BURB	610	944	11	31-Oct-92	Peace	F1	2	
69	BURB	623	1206	12	31-Oct-92	Peace	F1	3	
70	BURB	564	1015	11	31-Oct-92	Peace	F1	3	
71	BURB	555	749	10	31-Oct-92	Peace	F1	3	
72	BURB	653	1179	12	31-Oct-92	Peace	F1	3	
73	BURB	623	999	12	31-Oct-92	Peace	F1	3	
74	BURB	730	2660	10	31-Oct-92	Peace	F1	3	
75	BURB	594	1040	11	31-Oct-92	Peace	F1	3	
76	BURB	537	862	10	31-Oct-92	Peace	F1	3	
77	BURB	635	1246	11	31-Oct-92	Peace	F1	3	
78	BURB	706	1862	11	31-Oct-92	Peace	F1	3	
79	BURB	470	511	8	31-Oct-92	Peace	F2	3	
80	BURB	358	253	5	31-Oct-92	Peace	F3	1	
81	NRPK	550	1151	-	01-Nov-92	Peace	F3	1	cont. analysis
82	BURB	1043	5250	19	01-Nov-92	Peace	F2	5	
83	BURB	440	375	7	01-Nov-92	Peace	F1	4	
84	BURB	431	513	6	03-Nov-92	Peace	G1	1	
85	BURB	551	831	10	03-Nov-92	Peace	G1	2	
86	BURB	783	2076	15	03-Nov-92	Peace	G1	3	
87	BURB	588	1054	8	03-Nov-92	Peace	G1	4	
88	BURB	718	2439	11	03-Nov-92	Peace	G2	2	
89	BURB	772	2909	15	03-Nov-92	Peace	G2	2	
90	BURB	535	814	9	03-Nov-92	Peace	G2	1	
91	BURB	570	912	10	03-Nov-92	Peace	G2	1	
92	BURB	907	4368	18	03-Nov-92	Peace	G2	1	
93	BURB	738	2006	11	03-Nov-92	Peace	G3	2	
94	BURB	533	883	9	03-Nov-92	Peace	G3	2	
95	BURB	499	697	9	03-Nov-92	Peace	G3	3	
96	BURB	572	979	9	03-Nov-92	Peace	G3	3	
97	BURB	504	642	9	05-Nov-92	Peace	K3	1	

Sample No.	Species	(mm)	Weight (g)	Age	Collection Date	River	Site	Set No.	Comments
98	BURB	634	1385	11	05-Nov-92	Peace	КЗ	2	
99	BURB	445	443	6	05-Nov-92	Peace	K2	1	
100	BURB	407	316	5	05-Nov-92	Peace	K2	2	
101	BURB	466	544	6	05-Nov-92	Peace	K2	3	
102	BURB	834	3679	14	05-Nov-92	Peace	K2	3	
103	BURB	845	4928	13	05-Nov-92	Peace	K1	1	
104	BURB	474	612	8	05-Nov-92	Peace	K1	2	
105	BURB	772	2658	12	05-Nov-92	Peace	K1	3	
106	BURB	578	1228	13	05-Nov-92	Peace	K1	3	
107	BURB	650	1901	13	05-Nov-92	Peace	K1	3	
108	BURB	562	1108	9	05-Nov-92	Peace	K1	4	
109	BURB	798	4408	12	05-Nov-92	Peace	K1	4	
110	BURB	441	523	7	05-Nov-92	Peace	КЗ	4	
111	BURB	506	637	8	05-Nov-92	Peace	K3	5	
112	BURB	534	826	10	05-Nov-92	Peace	K3	6	
113	BURB	672	1819	9	07-Nov-92	Peace	11	1	
114	BURB	583	1033	11	07-Nov-92	Peace	11	1	
115	BURB	556	941	11	07-Nov-92	Peace	l1	1	
116	BURB	650	1385	13	07-Nov-92	Peace	l1	1	
117	BURB	448	499	6	07-Nov-92	Peace	11	1	
118	BURB	716	1986	11	07-Nov-92	Peace	11	2	
119	BURB	452	884	8	07-Nov-92	Peace	11	4	
120	BURB	806	2262	11	07-Nov-92	Peace	11	4	
121	BURB	510	693	9	07-Nov-92	Peace	12	1	
122	BURB	773	2947	15	07-Nov-92	Peace	12	1	
123	BURB	602	1110	12	07-Nov-92	Peace	13	2	
124	BURB	715	2294	12	07-Nov-92	Peace	13	2	
125	BURB	464	581	7	07-Nov-92	Peace	13	2	
126	BURB	665	1733	10	07-Nov-92	Peace	13	3	
127	BURB	575	<b>82</b> 8	10	07-Nov-92	Peace	13	3	
128	BURB	548	664	11	07-Nov-92	Peace	13	3	
129	BURB	458	516	7	07-Nov-92	Peace	13	4	
130	BURB	473	557	7	09-Nov-92	Peace	J1	2	
131	BURB	511	619	7	09-Nov-92	Peace	J1	2	
132	BURB	462	666	8	09-Nov-92	Peace	J1	2	
133	BURB	584	968	11	09-Nov-92	Peace	J1	2	
134	BURB	455	532	7	09-Nov-92	Peace	J2	3	
135	BURB	624	1749	10	09-Nov-92	Peace	J2	3	
136	BURB	623	1462	11	09-Nov-92	Peace	J2	3	
137	BURB	760	2308	15	09-Nov-92	Peace	J3	3	
138	BURB	490	573	8	09-Nov-92	Peace	J3	4	
139	BURB	863	5027	13	11-Nov-92	Peace	НЗ	3	
140	BURB	888	4641	17	11-Nov-92	Peace	НЗ	3	
141	BURB	825	2907	12	11-Nov-92	Peace	H3	3	
142	BURB	446	558	6	11-Nov-92	Peace	H3	2	
143	BURB	500	576	9	11-Nov-92	Peace	H2	1	
144	BURB	761	1962	14	11-Nov-92	Peace	H2	i	
145	BURB	856	4045	15	11-Nov-92	Peace	H2	2	
146	BURB	688	1788	12	11-Nov-92	Peace	H2	3	
147	BURB	862	2955	15	11-Nov-92	Peace	H2	3	
7 /	20112	002	2000	.0		1 0400	1 14-	9	

Sample No.	Species	Length (mm)	Weight (g)	Age	Collection Date	River	Site	Set No.	Comments
148	BURB	641	1074	10	11-Nov-92	Peace	H2	3	
149	BURB	541	886	6	11-Nov-92	Peace	H2	4	
150	BURB	489	588	7	11-Nov-92	Peace	H2	4	
151	BURB	728	1844	12	11-Nov-92	Peace	H1	1	
152	BURB	525	686	9	11-Nov-92	Peace	H1	1	
153	BURB	602	1180	11	11-Nov-92	Peace	H1	2	
154	BURB	683	1710	11	11-Nov-92	Peace	H1	3	
155	BURB	761	2406	14	11-Nov-92	Peace	H1	3	
156	BURB	630	1180	10	11-Nov-92	Peace	H1	4	
157	BURB	589	1012	10	11-Nov-92	Peace	H1	4	
158	BURB	479	583	7	11-Nov-92	Peace	H1	4	
159	NRPK	531	-	-	31-Oct-92	Peace	F1	1	released
160	NRPK	601	-	-	31-Oct-92	Peace	F1	4	released
161	NRPK	540	-	-	31-Oct-92	Peace	F2	4	released
162	NRPK	418	-	-	3-Nov-92	Peace	G1	4	released
163	NRPK	522	-	-	3-Nov-92	Peace	G2	1	released
164	NRPK	411	-	-	3-Nov-92	Peace	G2	1	released
165	NRPK	464	•	-	3-Nov-92	Peace	G2	1	released
166	GOLD	307	-	-	3-Nov-92	Peace	G2	1	released
167	WALL	483	-	-	3-Nov-92	Peace	G2	4	released
168	NRPK	<b>586</b>	-	-	3-Nov-92	Peace	G3	2	released
169	NRPK	517	-	-	1-Nov-92	Peace	H1	1	released
170	WALL	519	~	-	1-Nov-92	Peace	H1	2	released
171	NRPK	409	-	-	1-Nov-92	Peace	H2	3	released
172	NRPK	477	-	-	1-Nov-92	Peace	H2	4	released
173	WALL	572	-	-	7-Nov-92	Peace	11	1	released
174	NRPK	601	-	-	7-Nov-92	Peace	11	3	released
175	NRPK	326	-	-	7-Nov-92	Peace	12	3	released
176	GOLD	219	-	-	7-Nov-92	Peace	12	3	released
1 <i>7</i> 7	NRPK	592	•	-	9-Nov-92	Peace	J1	1	sacrificed
178	NRPK	481	-	•	9-Nov-92	Peace	J1	3	sacrificed
179	NRPK	534	•	-	9-Nov-92	Peace	J1	3	sacrificed
180	WALL	311	-	-	9-Nov-92	Peace	J1	4	sacrificed
181	NRPK	489	-	-	9-Nov-92	Peace	J2	3	sacrificed
182	WALL	421	-	-	9-Nov-92	Peace	J3	1	sacrificed
183	WALL	569	-	-	9-Nov-92	Peace	K1	2	sacrificed
184	WALL	484	-	-	9-Nov-92	Peace	K3	1	sacrificed
185	NRPK	529	-	-	9-Nov-92	Peace	K3	2	sacrificed

**Appendix C.** Special Burbot Collection Project Catch-Per-Unit-Effort and Habitat Data

Depth*         Set No.         No. of Inches         Effort Hooks         Caught Hours           s         2         20         18.00         360         2           s         2         20         18.00         360         3           d         1         15         19.00         285         1           d         1         20         17.00         340         1           d         1         20         17.00         340         1           d         1         20         17.00         340         1           d         2         20         17.00         340         1           d         4         20         17.00         340         1           s         2         20         17.00         340         1           d         4         20         22.25         445         1           s         1         20 <th></th> <th>The state of the state of</th> <th></th> <th>DOLLO</th> <th></th> <th>Offier apecies</th>		The state of the state of		DOLLO		Offier apecies
lat s s 1 1 20 18.00 360 and a s 2 2 20 18.00 360 and a s 2 2 20 18.00 285 and a d 3 20 15.00 300 and a d 1 2 2 17.00 340 and a d 1 2 2 17.00 340 and a d 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	No. of Effort Hooks (h)		Caught Obs	Observed Total	al CPUE	NRPK WALL GOLD Comments
mouth of snye         m         1         20         18.00         360           snye         s         2         20         18.00         360           mud flat         s         2         20         18.00         285           back eddy         d         3         20         15.00         285           back eddy         d         3         20         17.00         340           side channel         m         1         20         17.00         340           back eddy         m         1         20         17.00         340           back eddy         d         1         20         17.00         340           back eddy         d         2         20         17.00         340           side current line         s         3         20         22.25         445           hole         deep mud flat         d         4         20         22.25         445           hole         deep mud flat         s         3         20         22.50         450           inside current line         s         1         20         17.00         340           geep back eddy						
sinye         s         2         20         18.00         360           mud flat         s         1         15         19.00         285           back eddy         d         3         20         15.00         300           back eddy         d         1         20         17.00         340           side channel         m         1         20         17.00         340           back eddy         m         1         20         17.00         340           bole         d         2         20         17.00         340           hole         d         1         20         17.00         340           hole         d         2         20         22.25         445           hole         d         4         20         22.50         450           inside current line         s         17.00         340           side cheap back eddy         m         1         20         17.00         340           side cheap back eddy         m         1         1         17.40         261           deep back eddy         m         1         1         1         1         1<		360	2	2	0.56	
mud flat         s         1         15         19.00         285           back eddy         d         3         20         15.00         300           back eddy         d         1         20         17.00         340           Site "A" Total         m         1         20         17.00         340           back eddy         m         1         20         17.00         340           hole         d         1         20         17.00         340           hole         d         2         20         22.25         445           mud flat         s         3         20         21.75         435           hole         d         4         20         22.25         445           mud flat         s         3         20         22.05         450           Site"B" Total         s         17.00         340           Site"B" Total         s         17.00         340           deep back eddy         d         4         17.00         340           back eddy         d         4         15         17.00         340           m	50	360	8	3	0.83	
mud flat         s         2         15         19.00         285           back eddy         d         3         20         15.00         300           back eddy         d         1         20         17.00         340           Site "A" Total	15	285	-	-	0.35	
back eddy back e	15	285	0	1	0.35	
back eddy         d         1         20         17.00         340           Site "A" Total         2         0         17.00         340           back eddy         m         1         20         17.00         340           hole         d         1         20         17.00         340           hole         d         2         20         22.25         445           mud flat         d         4         20         22.55         445           hole         d         4         20         22.25         445           deep mud flat         d         4         20         22.50         470           deep mud flat         s         1         20         17.00         340           site/Be current line         s         1         20         17.00         340           site deep back eddy         d         4         15         18.00         270           deep back eddy         d         4         15         17.40         261           back eddy         d         4         15         17.40         261           back eddy         m         1         2	50	300	က	က	1.00	
side channel         m         2         20         17.00         340           back eddy         m         1         20         17.00         340           hole         d         1         20         17.00         340           hole         d         2         20         22.25         445           hole         d         4         20         22.25         445           deep mud flat         d         5         20         22.50         450           inside current line         s         1         15         17.40         261           deep back eddy         d         4         15         17.40         261           back eddy         m         1         20         16.50         330           mud flat         m         4         15         17.40         261 </td <td>20</td> <td>340</td> <td>-</td> <td>-</td> <td>0.29</td> <td></td>	20	340	-	-	0.29	
Site "A" Total         2270           back eddy         m         1         20         17.00         340           hole         d         2         20         22.25         445           mud flat         d         4         20         22.25         445           hole         d         4         20         22.25         450           deep mud flat         d         4         20         22.50         470           deep mud flat         d         5         20         22.50         450           inside current line         s         1         20         17.00         340           side current line         s         1         1         20         17.40         261           back eddy         m         1         20         18.25         365           deep back eddy         d         4         15         17.40         261           back eddy         m         1         20         16.50         330           mud flat         m         3         20         16.50         325           mouth of snye         m         1         15         18.00         277.5	20	340	5	2	1.47	
back eddy m 1 20 17.00 340 hole hole hole hole d 2 20 22.25 445 hole mud flat s 3 20 21.75 435 hole deep mud flat back eddy		2270	15	16	0.70	
hole hole d 1 20 17.00 340 hole hole d 2 20 22.25 445 hole deep mud flat s 3 20 21.75 435 hole deep mud flat s 1 20 17.00 340 side current line s 1 1 15 18.00 270 deep back eddy d 2 2 2 2 18.00 270 deep back eddy d 3 2 2 2 18.00 360 deep back eddy d 4 15 17.40 261 back eddy d 1 1 15 18.00 330 inside current line s 2 2 2 16.50 330 mud flat mouth of snye m 1 15 18.00 277.5 off gravel point s 2 15 18.00 270 off gravel point s 3 2 15 17.75 355 side channel m 4 20 17.75 355		340	0	0	0.00	
hole current line s 2 20 22.25 445 hole hole s 3 20 21.75 435 hole deep mud flat d 5 20 22.50 470 deep mud flat side current line s 1 15 18.00 270 deep back eddy mud flat side current line s 2 20 16.50 330 mud flat mud flat mud flat mud flat mud flat soft side channel m 1 15 18.00 270 off gravel point s 2 15 17.50 355 side channel m 1 15 17.50 262.5 side channel m 1 17.75 355		340	9	1 7	2.06	
mud flat         s         3         20         21.75         435           hole         d         4         20         23.50         470           deep mud flat         d         5         20         22.50         450           inside current line         s         1         20         17.00         340           soff gravel bar below riffle         s         1         18.00         270           deep back eddy         d         4         15         17.40         261           back eddy         m         1         20         16.50         330           inside current line         s         2         2         20         18.00         360           deep back eddy         m         1         20         16.50         330           inside current line         s         2         20         16.50         330           mud flat         m         4         20         16.25         325           mouth of snye         m         1         15         18.00         270           off gravel point         s         3         15         17.75         355           side channel         m </td <td>20</td> <td>445</td> <td>-</td> <td>-</td> <td>0.22</td> <td></td>	20	445	-	-	0.22	
hole deep mud flat d 5 20 23.50 470 deep mud flat s 1 20 17.00 340 steerent line s 1 1 20 17.00 340 inside current line s 2 2 20 18.25 365 deep back eddy defector m 1 20 16.50 330 inside current line s 2 2 20 18.00 360 deep back eddy defector m 1 20 16.50 330 mud flat mud flat m 3 20 15.25 305 mouth of snye m 1 15 18.50 277.5 off gravel point s 2 15 18.00 270 off gravel point s 3 3 15 17.75 355 side channel m 4 20 17.75 355	20	435	0	0	0.00	
deep mud flat         d         5         20         22.50         450           Ste"B" Total         2820           inside current line         s         1         15         18.00         270           off gravel bar below riftle         s         2         20         18.25         365           deep back eddy         d         4         15         17.40         261           back eddy         m         1         20         16.50         330           inside current line         s         2         20         16.50         330           mud flat         m         4         20         16.50         330           mud flat         m         4         20         16.50         37.55           mud flat         m         4         20         16.50         37.55           off pt. into main current         s         2         15         18.50         277.5           off gravel point         s         3         15         17.50         262.5           side channel         m         4         20         17.75         355	20	470	-	-	0.21	
inside current line s 1 20 17.00 340 shall be seen below riftle s 2 20 18.25 365 deep back eddy deep back eddy deep back eddy m 1 20 16.50 330 inside current line s 2 20 18.25 365 mud flat m 4 20 16.25 325 mouth of snye m 1 15 18.00 270 off gravel point s 3 3 15 17.75 355 side channel m 4 20 17.75 355	20	450	-	-	0.22	
Site**B** Total         2820           inside current line         s         1         15         18.00         270           off gravel bar below riftle         s         2         20         18.25         365           deep back eddy         d         4         15         17.40         261           back eddy         m         1         20         16.50         330           inside current line         s         2         20         16.50         330           mud flat         m         3         20         15.25         305           mud flat         m         4         20         16.25         325           mouth of snye         m         1         15         18.50         277.5           off pt. into main current         s         2         15         18.00         270           off gravel point         s         3         15         17.50         262.5           side channel         m         4         20         17.75         355		340	-	-	0.29	
inside current line s 1 15 18.00 270 off gravel bar below riffle s 2 20 18.25 365 deep back eddy d 3 20 18.00 360 deep back eddy d 4 15 17.40 261 back eddy m 1 20 16.50 330 inside current line s 2 20 16.50 330 mud flat mud flat m 4 20 15.25 305 mouth of snye m 1 15 18.50 277.5 off gravel point s 3 3 15 17.50 262.5 side channel m 4 20 17.75 355		2820	10	11	0.39	
off gravel bar below riffle s 2 20 18.25 365 deep back eddy d 3 20 18.00 360 deep back eddy d 4 15 17.40 261 back eddy m 1 20 16.50 330 inside current line s 2 20 16.50 330 mud flat m 3 20 15.25 305 mud flat m 4 20 16.25 325 off pt. into main current s 2 15 18.00 270 off gravel point s 3 3 15 17.50 262.5 side channel m 4 20 17.75 355		270	2	2	0.74	
deep back eddy         d         3         20         18.00         360           deep back eddy         d         4         15         17.40         261           back eddy         m         1         20         16.50         330           inside current line         s         2         20         16.50         330           mud flat         m         4         20         15.25         305           mouth of snye         m         1         15         18.50         277.5           off pt. into main current         s         2         15         18.00         270           off gravel point         s         3         15         17.50         262.5           side channel         m         4         20         17.75         355	20	365	2	2	0.55	
deep back eddy         d         4         15         17.40         261           back eddy         m         1         20         16.50         330           inside current line         s         2         20         16.50         330           mud flat         m         3         20         15.25         305           mud flat         m         4         20         16.25         325           mouth of snye         m         1         15         18.50         277.5           off pt. into main current         s         2         15         18.00         270           off gravel point         s         3         15         17.50         262.5           side channel         m         4         20         17.75         355	20	360	က	က	0.83	
back eddy         m         1         20         16.50         330           inside current line         s         2         20         16.50         330           mud flat         m         3         20         15.25         305           mud flat         m         1         15         18.50         277.5           off pt. into main current         s         2         15         18.00         270           off gravel point         s         3         15         17.50         262.5           side channel         m         4         20         17.75         355	15	261	-	-	0.38	
inside current line         s         2         20         16.50         330           mud flat         m         3         20         15.25         305           mud flat         m         4         20         16.25         325           mouth of snye         m         1         15         18.50         277.5           off pt. into main current         s         2         15         18.00         270           off gravel point         s         3         15         17.50         262.5           side channel         m         4         20         17.75         355	20	330	-	-	0.30	
mud flat         m         3         20         15.25         305           mud flat         m         4         20         16.25         325           mouth of snye         m         1         15         18.50         277.5           off pt. into main current         s         2         15         18.00         270           off gravel point         s         3         15         17.50         262.5           side channel         m         4         20         17.75         355	50	330	-	-	0.30	
mud flat         m         4         20         16.25         325           mouth of snye         m         1         15         18.50         277.5           off pt. into main current         s         2         15         18.00         270           off gravel point         s         3         15         17.50         262.5           side channel         m         4         20         17.75         355	20	305	-	-	0.33	
mouth of snye         m         1         15         18.50         277.5           off pt. into main current         s         2         15         18.00         270           off gravel point         s         3         15         17.50         262.5           side channel         m         4         20         17.75         355	20	325	2	2	0.62	
off pt. into main current         s         2         15         18.00         270           off gravel point         s         3         15         17.50         262.5           side channel         m         4         20         17.75         355		277.5	-	-	0.36	
off gravel point s 3 15 17.50 262.5 side channel m 4 20 17.75 355	15	270	2	2	0.74	
side channel m 4 20 17.75 355	15	262.5	0	0	00.00	
	20	355	2	1 3	0.85	
_		3711	18	19	0.51	
Smoky River Total 8801 43		8801	43	46	0.52	

								Burbot	ot		Other Species**
Site	Habitat Type	Depth*	Set No.	No. of Hooks	Effort (h)	Hook- Hours	Caught	Caught Observed	Total	CPUE	NRPK WALL GOLD Comments
Wapiti River	River										
6	deep back eddy	Р	-	20	23.00	460	2	-	9	1.30	
DS	back eddy	Ε	-	15	22.00	330	4		4	1.21	
D2	inside current line	E	2	20	22.25	445	4		4	0.90	
D2	mud flat	E	3	15	22.00	330	2		2	0.61	
D3	deep mud flat	р	-	20	20.50	410	0		0	0.00	lost
D3	deep back eddy	P	2	15	20.50	307.5	2	-	က	0.98	
D3	mouth of side channel	E	က	20	19.50	390	3		က	0.77	
	Site "D" Total					2672.5	20		22	0.82	
	Wapiti River Total					2672.5	20		22	0.82	÷
Peace River	River										
F	mud flat	S	-	20	28.00	260	2		2	0.36	-
E	mud flat	S	2	20	28.00	260	-		-	0.18	
F	snye	E	က	20	27.50	550	11		1	2.00	
F	back eddy	E	4	20	19.00	380	-		-	0.26	-
F	off gravel pt.	S	2	20	18.70	374	0		0	00.00	
F2	deep back eddy	Р	-	20	27.20	544	-		-	0.18	
F2	back eddy	E	2	50	27.10	545	0		0	0.00	
F2	mud flat	S	က	50	26.75	535	-		-	0.19	
F2	back eddy	E	4	20	18.75	375	0		0	00.0	-
F2	mud flat	E	2	50	18.75	375	-		-	0.27	
F3	back eddy	P	-	15	27.50	412.5	-		-	0.24	-
F3	mouth of effluent inlet	တ	2	50	27.00	240	0		0	0.00	
F3	mud flat	E	က	50	18.75	375	0		0	00.00	
	Site "F" Total					6122.5	19		19	0.31	
G1	mud flat	S	-	20	26.25	525	-		-	0.19	
G	inside snye	S	2	15	26.00	390	-		-	0.26	
G1	mouth of snye	Ε	3	15	25.50	382.5	-		-	0.26	
G1	cobble side channel	S	4	20	25.00	200	-		-	0.20	-
G2	mud flat	Ε	-	20	27.00	240	က		က	0.56	3 1
G2	mouth of Notikewin R.	S	2	15	26.00	390	2		2	0.51	

								Burbot	ot		Other Species**	
Site	Habitat Type	Depth*	Set No.	No. of Hooks	Effort (h)	Hook- Hours	Caught	Caught Observed	Total	CPUE	NRPK WALL GOLD	Comments
G2	mouth of Notikewin R.	s	3	20	25.70	514	0		0	00.00		
<b>G</b> 2	deep back eddy	р	4	20	25.00	200	0		0	00.00	-	
G2	deep back eddy	р	2	20	25.00	200	0		0	0.00		
G3	off gravel pt.	S	-	20	26.00	520	0		0	00.00		lost
63	mouth of snye	E	2	20	25.75	515	2		2	0.39	-	
63	inside snye	E	က	20	25.40	208	2		2	0.39		
	Site "G" Total					5784.5	13		13	0.22		
Ξ	mouth of snye	Е	-	20	20.75	415	2		2	0.48	-	
Ξ	mouth of snye	Ε	2	20	20.75	415	-		-	0.24	-	
Ξ	mouth of snye	Ε	က	10	21.00	210	2	-	ဇ	1.43		
Ξ	inside snye	S	4	15	21.50	322.5	က		က	0.93		
Ξ	inside snye	S	2	15	20.75	311.25	0		0	00.0		
Ŧ	inside snye	S	9	50	20.75	415	0		0	00.0		
H2	mouth of Wolverine R.	<b>+</b>	-	15	22.00	330	2		2	0.61		
HZ	back eddy	Ε	2	20	22.25	445	-		-	0.22		
H	back eddy	Ε	က	50	22.25	445	က		က	0.67	-	
H	sand flat	S	4	50	22.50	450	2		2	0.44	-	
£	mud flat	S	-	20	23.00	460	0		0	0.00		lost
H3	deep hole	р	2	20	23.00	460	-		-	0.22		
운	deep hole	О	က	20	20.50	410	ო		က	0.73		
	Site "H" Total					5088.8	20		21	0.41		
=	deep side channel	p	-	20	22.25	445	2		5	1.12	-	
Ξ	deep side channel	p	2	20	22.25	445	-		-	0.22		
=	deep side channel	р	က	20	22.50	450	0		0	00.00	-	
=	deep side channel	р	4	15	22.50	337.5	2		2	0.59		
2	mud flat	dm	-	20	22.25	445	2		2	0.45		
2	mud flat	E	2	20	22.25	445	0		0	00.0		
2	mud flat	E	က	20	22.50	450	0		0	00.0	-	
2	mud flat	Ε	4	20	22.75	455	0		0	0.00		
<u>8</u>	inside snye	S	-	15	22.75	341.25	0		0	0.00		lost
<u>8</u>	inside snye	S	2	15	21.25	318.75	က		က	0.94		
<u>m</u>	mouth of snye	Ε	က	20	21.00	450	က		က	0.71		
<u>e</u>	mouth of snye	Ε	4	20	21.00	450	-	-	2	0.48		
	Site "I" Total					4972.5	17		18	0.36		

Site								Burbot	<b>5</b>		ğ	Other Species**	#8 <del>8</del> ##	
	Habitat Type	Depth⁴	Set No.	No. of Hooks	Effort (h)	Hook- Hours	Caught	Caught Observed	Total	CPUE	NRPK		WALL GOLD	Comments
15	cobble scour pool	Ε	-	15	22.00	330	0		0	0.00	-			
5	cobble flat	S	2	20	23.75	475	2		2	0.42				
5	cobble flat	S	8	20	23.00	460	0		0	0.00	2			
5	cobble flat	S	4	20	22.50	450	0		0	0.00		-		
75	deep mud flat	О	-	10	22.00	220	0		0	0.00				
75	deep mud flat	Ф	2	20	22.25	445	2		2	0.45				
72	mud flat	Ε	3	20	21.25	425	3		က	0.71	-			
75	mud flat	E	4	20	21.00	420	0		0	0.00				
13	deep side channel	О	-	15	22.75	341.25	0		0	0.00		-		
93	deep side channel	О	2	20	22.50	450	0		0	0.00				
23	deep side channel	О	က	15	21.50	322.5	-		-	0.31				
13	deep side channel	Р	4	20	21.50	430	-		-	0.23				
3	deep side channel	Р	2	20	21.50	430	0		0	0.00				
	Site "J" Total					5198.8	6		6	0.17				
조	deep hole	p	-	20	20.00	400	1		-	0.25				
¥	deep hole	О	2	20	20.25	405	-		-	0.25		-		
Z	deep hole	р	က	15	20.25	303.75	က		က	0.99				
조	off gravel pt.	S	4	20	20.00	400	2		2	0.50				
K2	shallow sand flat	S	-	15	22.25	333.75	-		-	0.30				
K2	shallow sand flat	S	2	15	22.50	337.5	-		-	0.30				
K2	shallow sand flat	S	8	20	22.00	440	2		2	0.45				
K2	off point of island	S	4	20	22.00	440	0		0	0.00				
K3	mud flat	Ε	-	50	23.50	470	-		-	0.21		-		
¥3	mud flat	Ε	2	20	23.75	475	-		-	0.21	-			
<b>K</b> 3	mud flat	Ε	က	20	20.50	410	0		0	0.00				
K3	mud flat	E	4	20	20.00	400	-		-	0.25				
<b>K</b> 3	mud flat	Ε	2	20	20.00	400	-		-	0.25				
¥3	mud flat	E	9	20	20.00	400	-	-	2	0.50				
	Site "K" Total					5615	16		17	0.30				
	Peace River Total					32782	94		26	0.30				

\* Depth: s - shallow (< 1.0 m); m - moderate (1.0 - 3.0 m); d - deep (>3.0). \*\* Species Code: NRPK - northern pike; WALL - walleye; GOLD - goldeye.

Appendix D. Special Burbot Collection Project Gross Pathology (External)

D.A. Westworth & Associates Ltd.

**Examination Sheets** 

	DATE: 24/10/92
SAMPLE NO.:	LOCATION: B3
SPECIES: Lina	CAPTURE METHOD: Set Line
CAPTURE TIME: 0930	EXAMINATION TIME: 1030
GROSS EXTERNAL EXAMINATION	
Skin: (X) Normal () Excessive mu () Lesions () Single () Open () Haemorrhagic () Blister () Tumour	( ) Multiple ( ) Closed ( ) Necrotic ( ) Ulcer
Location:	
Wet mount/smear:	
Eyes: ( X) Normal ( ) Exophtha ( ) Opaque cornea ( ) Lens los	
Fins: ( > ) Normal ( ) Frayed	( ) Haemorrhagic
Wet mount/smear:	
Gills: () Normal ( ) Pale ( ) Necrotic ( ) Excessiv ( ) Telangiectasia ( ) Gas embo	e mucus ( ) Mottled ( ) Haemorrhagic ( ) Hyperplasia ( ) Cysts
( ) Large Parasites	( ) Fungus Visible
( ) Large Parasites	( ) Fungus Visible
( ) Large Parasites	( ) Fungus Visible
<pre>Wet amount/smear: GROSS INTERNAL EXAMINATION Adipose Tissue:</pre>	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
Wet amount/smear:  GROSS INTERNAL EXAMINATION  Adipose Tissue: ( ) Normal ( ) Excessive ( ) Colour  Liver: ( ) Normal ( ) Enlarge ( ) Other Texture:	( ) Reduced ( ) Petechial Haemorrhagin
Wet amount/smear:  GROSS INTERNAL EXAMINATION  Adipose Tissue:  ( ) Normal ( ) Excessive ( ) Colour  Liver: ( ) Normal ( ) Enlarge ( ) Other Texture:	( ) Reduced ( ) Petechial Haemorrhagie ( ) Cysts ( ) Reduced Colour: ( ) Pale ( ) Mottled
Wet amount/smear:  GROSS INTERNAL EXAMINATION  Adipose Tissue:  ( ) Normal ( ) Excessive ( ) Colour  Liver: ( ) Normal ( ) Enlarge ( ) Other Texture:	( ) Reduced ( ) Petechial Haemorrhagir ( ) Cysts ( ) Reduced Colour: ( ) Pale ( ) Mottled ltiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)
Wet amount/smear:  GROSS INTERNAL EXAMINATION  Adipose Tissue:  ( ) Normal ( ) Excessive ( ) Colour  Liver: ( ) Normal ( ) Enlarge ( ) Other Texture:	( ) Reduced ( ) Petechial Haemorrhagir ( ) Cysts ( ) Reduced Colour: ( ) Pale ( ) Mottled ltiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)
Wet amount/smear:  GROSS INTERNAL EXAMINATION  Adipose Tissue:  ( ) Normal ( ) Excessive ( ) Colour  Liver: ( ) Normal ( ) Enlarge ( ) Other Texture: ( ) Lesions: ( ) Single ( ) Mu ( ) Necrotic ( ) Haemorrhagic  Spleen:  ( ) Normal ( ) Enlarged ( ) Cyst(parasite) ( ) Cyst (fl  Stained smear:  Intestines: ( ) Normal ( ) Distended ( flu ( ) Flaccid ( ) Haemorrhagic  Kidney, Posterior:	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts  ( ) Reduced Colour: ( ) Pale ( ) Mottled ltiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)  ( ) Reduced ( ) Raspberry surface uid) ( ) Colour
Wet amount/smear:  GROSS INTERNAL EXAMINATION  Adipose Tissue:  ( ) Normal ( ) Excessive ( ) Colour  Liver: ( ) Normal ( ) Enlarge ( ) Other Texture:	( ) Reduced ( ) Petechial Haemorrhagie ( ) Cysts ( ) Reduced Colour: ( ) Pale ( ) Mottled ltiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid) ( ) Reduced ( ) Raspberry surface uid) ( ) Colour

In the event that a significant number of specimen at any site have abnormalities, the contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

N.B.

	GROSS PATHOLOGY	
	DATE: 24/10/92	
SAMPLE N	LOCATION: B2	
	Ling CAPTURE METHOD: Sof Line	
CAPTURE	TIME: 1000 EXAMINATION TIME: 1035	
GROSS EI	TERNAL EXAMINATION	
Skin: (( ( ( ( (	X) Normal ( ) Excessive mucus ( ) Abnormal Colour ( ) Lesions ( ) Single ( ) Multiple ( ) Closed ( ) Open ( ) Haemorrhagic ( ) Necrotic ( ) Ulcer ( ) Blister ( ) Tumour ( ) Lost Scales ( ) Abrasions	
L	cation:	
W	t mount/smear:	
	( ) Exophthalmia ( ) Cataract ( ) Haemorrhagic ) Opaque cornea ( ) Lens lost ( ) Parasites ( ) Bilateral	
Fins: (	( ) Normal ( ) Frayed ( ) Haemorrhagic ( ) Eroded ( ) Deformed ( )	
W	t mount/smear:	
Gills: (	( ) Normal ( ) Pale ( ) Mottled ( ) Haemorrhagic ( ) Excessive mucus ( ) Hyperplasia ( ) Gas emboli ( ) Cysts ( ) Fungus Visible	
We	t amount/smear:	
GROSS IN	ERNAL EXAMINATION	
Adipose (	issue: ) Normal ( ) Excessive ( ) Reduced ( ) Petechial Haemorrha ) Colour ( ) Cysts	gio
(	) Normal ( ) Enlarge ( ) Reduced Colour: ( ) Pale ( ) Mott ) Other	lec
Spleen:	) Normal ( ) Enlarged ( ) Reduced ( ) Raspberry surface ( ) Cyst(parasite) ( ) Cyst (fluid) ( ) Colour	2
S	ained smear:	
Intestine (	s: ) Normal ( ) Distended ( fluid) ( ) Distended (mucoid) ) Flaccid ( ) Haemorrhagic ( ) Cysts(parasite) ( ) Tumour	
(	ostarior: ) Normal ( ) Enlarge ( ) Lesions ( ) Single ) Multiple ( ) Gritty, white ( ) Cyst (parasite) ( ) Cyst (fluid)	

N.B. In the event that a significant number of specimen at any site have abnormalities, contractor is asked to immediately notify the Study Office.

Phone: 427-1742 or fab to 422-3055

Stained smear: \_

DATE: 24/10/92

SAMPLE NO.: 3	LOCATION: B2
SPECIES: Ling	CAPTURE METHOD: Set Line
CAPTURE TIME: 1000	EXAMINATION TIME: 1040
GROSS EXTERNAL EXAMINATION	
Skin:     ( X) Normal     ( ) Excess       ( ) Lesions     ( ) Single       ( ) Open     ( ) Haemon       ( ) 3lister     ( ) Tumour	sive mucus ( ) Abnormal Colour e ( ) Multiple ( ) Closed crhagic ( ) Necrotic ( ) Ulcer c ( ) Lost Scales ( ) Abrasions
Location:	
Wet mount/smear:	
Eyes: ( X) Normal ( ) E ( ) Opaque cornea ( ) L	Exophthalmia ( ) Cataract ( ) Haemorrhagic Lens lost ( ) Parasites ( ) Bilateral
Fins: (X) Normal () F	rayed ( ) Haemorrhagic
Wet mount/smear:	
	Pale ( ) Mottled ( ) Haemorrhagic ( ) Excessive mucus ( ) Hyperplasia ( ) Cysts ( ) Fungus Visible
Wet amount/smear:	
GROSS INTERNAL EXAMINATION	
Adipose Tissue: ( ) Normal ( ) Excess ( ) Colour	ive ( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
( ) Other Textu ( ) Lesions: ( ) Single	e () Reduced Colour: () Pale () Mottled re: () Multiple () Tumour rhagic () Cyst (parasite) () Cyst (Fluid)
Spleen:	-land ( ) Deduced ( ) Desired
( ) Normal ( ) E ( ) Cyst(parasite) ( ) C	nlarged ( ) Reduced ( ) Raspberry surface yst (fluid) ( ) Colour
Stained smear:	
Intestines:	
( ) Normal ( ) Distance ( ) Flaccid ( ) Haemorrh	d ( fluid) ( ) Distended (mucoid) agic ( ) Cysts(parasite) ( ) Tumour
Kidney, Posterior:  ( ) Normal ( ) Enlarge ( ) Multiple ( ) Gritty, ( ) Tumour	( ) Lesions ( ) Single white ( ) Cyst (parasite) ( ) Cyst (fluid)
Stained smear:	
OTHER:	

N.B. In the event that a significant number of specimen at any site have abnormalities, the contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

DATE: 24/10/92 LOCATION: 82 SAMPLE NO .: CAPTURE METHOD: Set Line SPECIES: EXAMINATION TIME: 104/5 CAPTURE TIME: GROSS EXTERNAL EXAMINATION ( \*) Normal ( ) Excessive mucus ( ) Abnormal Colour ( ) Lesions ( ) Single ( ) Multiple ( ) Closed ( ) Open ( ) Haemorrhagic ( ) Necrotic ( ) Ulcer ( ) Elister ( ) Tumour ( ) Lost Scales ( ) Abrasic Skin: ( / Normal ( ) Lost Scales ( ) Abrasions Location: \_\_\_\_ Wet mount/smear: \_\_\_\_\_ ( ) Normal ( ) Exophthalmia ( ) Cataract ( ) Haemorrhagic ( ) Opaque cornea ( ) Lens lost ( ) Parasites ( ) Bilateral Eyes: ( / ) Normal ( ★ ) Normal ( ) Frayed ( ) B ( ) Deformed (≮) Normal ( ) Haemorrhagic \_ Fins: Wet mount/smear: \_\_\_\_ Gills: ( / ) Normal ( ) Pale ( ) Mottled ( ) Haemorrhagic ( ) Necrotic ( ) Excessive mucus ( ) Hyperplasia ( ) Gas emboli ( ) Cysts ( ) Large Parasites ( ) Fungus Visible Wet amount/smear: \_\_\_\_ GROSS INTERNAL EXAMINATION ( ) Normal ( ) Excessive ( ) Reduced ( ) Petechial Haemorrhagic ( ) Colour ( ) Cysts Adipose Tissue: ( ) Normal ( ) Enlarge ( ) Reduced Colour: ( ) Pale ( ) Mottled ( ) Other \_\_\_\_\_\_\_ Texture: \_\_\_\_\_\_\_ ( ) Lesions: ( ) Single ( ) Multiple ( ) Tumour ( ) Necrotic ( ) Haemorrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid) Liver: ( ) Normal ( ) Enlarge Spleen: ( ) Normal ( ) Enlarged ( ) Reduced ( ) Raspberry surface ( ) Cyst(parasite) ( ) Cyst (fluid) ( ) Colour \_\_\_\_ Stained smear: \_\_ Intestines: ( ) Normal ( ) Distended (fluid) ( ) Distended (mucoid) ( ) Flaccid ( ) Haemorrhagic ( ) Cysts(parasite) ( ) Tumour Kidney, Posterior: ( ) Normal ( ) Enlarge ( ) Lesions ( ) Single ( ) Multiple ( ) Gritty, white ( ) Cyst (parasite) ( ) Cyst (fluid) ( ) Tumour Stained smear: \_

N.B. In the event that a significant number of specimen at any site have abnormalities, a contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

OTHER: \_

SAMPLE NO.: 5  LOCATION: B3  SPECIES: Ling CAPTURE METEOD: Set Line  CAPTURE TIME: 1000 EXAMINATION TIME: 1050  GROSS EXTERNAL EXAMINATION
CAPTURE TIME: 1000 EXAMINATION TIME: 1050  GROSS EXTERNAL EXAMINATION
CAPTURE TIME: 1000 EXAMINATION TIME: 1050  GROSS EXTERNAL EXAMINATION
Skin: ( X ) Normal ( ) Excessive mucus ( ) Abnormal Colour ( ) Lesions ( ) Single ( ) Multiple ( ) Closed ( ) Open ( ) Haemorrhagic ( ) Necrotic ( ) Ulcer ( ) Blister ( ) Tumour ( ) Lost Scales ( ) Abrasions
Location:
Wet mount/smear:
Tyes: ( X ) Normal ( ) Exophthalmia ( ) Cataract ( ) Haemorrhagic ( ) Opaque cornea ( ) Lens lost ( ) Parasites ( ) Bilateral
Fins: ( X ) Normal ( ) Frayed ( ) Deformed ( ) Haemorrhagic
Wet mount/smear:
### ( X ) Normal ( ) Pale ( ) Mottled ( ) Haemorrhagic ( ) Necrotic ( ) Excessive mucus ( ) Hyperplasia ( ) Telangiectasia ( ) Gas emboli ( ) Cysts ( ) Large Parasites ( ) Fungus Visible
Wet amount/smear:
ROSS INTERNAL EXAMINATION
dipose Tissue:  ( ) Normal ( ) Excessive ( ) Reduced ( ) Petechial Haemorrh; ( ) Colour ( ) Cysts
iver: ( ) Normal ( ) Enlarge ( ) Reduced Colour: ( ) Pale ( ) Motor ( ) Other Texture: ( ) Lesions: ( ) Single ( ) Multiple ( ) Tumour ( ) Necrotic ( ) Haemorrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid)
( ) Normal ( ) Enlarged ( ) Reduced ( ) Raspberry surface ( ) Cyst(parasite) ( ) Cyst (fluid) ( ) Colour
Stained smear:
Intestines:
( ) Normal ( ) Distended (fluid) ( ) Distended (mucoid) ( ) Flaccid ( ) Haemorrhagic ( ) Cysts(parasite) ( ) Tumour
( ) Normal ( ) Enlarge ( ) Lesions ( ) Single ( ) Multiple ( ) Gritty, white ( ) Cyst (parasite) ( ) Cyst (fluid) ( ) Tumour
Stained smear:
OTHER:

In the event that a significant number of specimen at any site have abnormalities, to

contractor is asked to immediately notify the Study Office.

Phone: 427-1742 or fab to 422-3055

N.B.

### NORTHERN RIVER BASINS STUDY EXAMINATION SHEETS

GROSS PATHOLOGY

		DATE: 24/10/92
SAMPL	E NO.:6	LOCATION: 82
	es: Ling	CAPTURE METHOD: Set Line
	RE TIME: /000	EXAMINATION TIME: 1055
	EITERNAL EXAMINATION	
Skin.	(X) Normal ( ) Excessive m	nucus / ) Abnormal Colour
SKIII.	( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagi ( ) Blister ( ) Tumour	( ) Multiple ( ) Closed .c ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
	Location:	
	Wet mount/smear:	
Eyes:	( X ) Normal ( ) Exopht ( ) Opaque cornea ( ) Lens l	halmia ( ) Cataract ( ) Haemorrhagic ost ( ) Parasites ( ) Bilateral
Fins:	( X ) Normal ( ) Frayed ( ) Eroded	( ) Deformed
	Wet mount/smear:	
Gills:	(X) Normal ( ) Pale ( ) Necrotic ( ) Excess ( ) Telangiectasia ( ) Gas emi ( ) Large Parasites	( ) Mottled ( ) Haemorrhagic ive mucus ( ) Hyperplasia coli ( ) Cysts ( ) Fungus Visible
	Wet amount/smear:	
GROSS	INTERNAL EXAMINATION	
Adipos	e Tissue:	
•	( ) Normal ( ) Excessive ( ) Colour	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
	( ) Other Texture:	( ) Reduced Colour: ( ) Pale ( ) Mottled  Multiple ( ) Tumour  ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen	: ( ) } =	A ( ) Baduard ( ) Bassassus a co
	( ) Cyst(parasite) ( ) Cyst (1	ed ( ) Reduced ( ) Raspberry surface fluid) ( ) Colour
	Stained smear:	
Intest:	ines:	
	( ) Normal ( ) Distended ( fl ( ) Flaccid ( ) Haemorrhagic	.uid) ( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour
Kidney,	, Posterior: ( ) Normal ( ) Enlarge	( ) Lesions ( ) Single
	( ) Multiple ( ) Gritty, white ( ) Tumour	( ) Lesions ( ) Single ( ) Cyst (parasite) ( ) Cyst (fluid)
	Stained smear:	

In the event that a significant number of specimen at any site have abnormalities, to contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055 N.B.

### NORTHERN RIVER BASINS STUDY EXAMINATION SEEETS

GROSS PATHOLOGY

_	DATE: 24/10/92
SAMPLE NO.:	LOCATION: 32
SPECIES: Line	CAPTURE METHOD: Set Line
CAPTURE TIME: 1000	EXAMINATION TIME: //OO
GROSS EXTERNAL EXAMINATION	
Skin: ( ) Normal ( ) Excess: ( ) Lesions ( ) Single ( ) Open ( ) Haemor: ( ) Blister ( ) Tumour	ive mucus ( ) Abnormal Colour ( ) Multiple ( ) Closec rhagic ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
Location:	
Wet mount/smear:	
Eyes: ( X) Normal ( ) Ex ( ) Opaque cornea ( ) Le	cophthalmia ( ) Cataract ( ) Haemorrhagic ens lost ( ) Parasites ( ) Bilateral
Fins: (X) Normal () Fr	cayed( ) Haemorrhagic
Wet mount/smear:	
Gills: (X) Normal ( ) Pa ( ) Necrotic ( ) Ex ( ) Telangiectasia ( ) Ga ( ) Large Parasites	tle ( ) Mottled ( ) Haemorrhagic cessive mucus ( ) Hyperplasia us emboli ( ) Cysts ( ) Fungus Visible
Wet amount/smear:	
GROSS INTERNAL EXAMINATION	
Adipose Tissue: ( ) Normal ( ) Excessi ( ) Colour	ve ( ) Reduced ( ) Petecnial Haemorrhagic ( ) Cysts
( ) Other Textur ( ) Lesions: ( ) Single (	( ) Reduced Colour: ( ) Pale ( ) Mottled e:  ) Multiple ( ) Tumour hagic ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen:  ( ) Normal ( ) En. ( ) Cyst(parasite) ( ) Cy	larged ( ) Reduced ( ) Raspberry surface st (fluid) ( ) Colour
Stained smear:	
<pre>Intestines:     ( ) Normal</pre>	( fluid) ( ) Distended (mucoid) gic ( ) Cysts(parasite) ( ) Tumour
<pre>Kidney, Posterior:     ( ) Normal</pre>	( ) Lesions ( ) Single hite ( ) Cyst (parasite) ( ) Cyst (fluid)
Stained smear:	
OTHER:	
N.B. In the event that a significant contractor is asked to immediately those: 427-1742 or fab to 422-	t number of specimen at any site have abnormalities, that ately notify the Study Office3055

	/: A	DATE: 25/10
SAMPLE	: но.:	LOCATION: 8-2
SPECIE	s: Ling	CAPTURE METHOD: Set Line
CAPTUR	E TIME:	EXAMINATION TIME: 0955
GROSS	EXTERNAL EXAMINATION	
Skin:	( ) Normal ( ) Excessive ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhag ( ) Elister ( ) Tumour	mucus ( ) Abnormal Colour ( ) Multiple ( ) Closed gic ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
	Location:	
	Wet mount/smear:	
Eyes:		thalmia ( ) Cataract ( ) Haemorrhagic lost ( ) Parasites ( ) Bilateral
Pins:	(X) Normal () Fraye ( ) Eroded	d( ) Haemorrhagic
	Wet mount/smear:	
Gills:	(X) Normal ( ) Pale (X) Necrotic ( ) Exces ( ) Telangiectasia ( ) Gas e ( ) Large Parasites	( ) Mottled ( ) Haemorrhagic sive mucus ( ) Hyperplasia mboli ( ) Cysts ( ) Fungus Visible
	Wet amount/smear:	
GROSS 1	INTERNAL EXAMINATION	
Adipose	Tissue: ( ) Normal ( ) Excessive ( ) Colour	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
Liver:	( ) Other Texture: ( ) Lesions: ( ) Single ( )	( ) Reduced Colour: ( ) Pale ( ) Mottled  Multiple ( ) Tumour ic ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen:		
	( ) Normal ( ) Enlar ( ) Cyst(parasite) ( ) Cyst	ged ( ) Reduced ( ) Raspberry surface (fluid) ( ) Colour
	Stained smear:	<del></del>
Intesti	ines: ( ) Normal ( ) Distended ( ( ) Flaccid ( ) Haemorrhagic	fluid) ( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour
Kidney,	<pre>Postarior:   ( ) Normal</pre>	( ) Lesions ( ) Single e ( ) Cyst (parasite) ( ) Cyst (fluid)
	Stained smear:	
OTHER:		
н.в.	In the event that a significant nu contractor is asked to immediate Phone: 427-1742 or fab to 422-30	

		DATE: 25/10/92
SAMPLE	z No.:9	LOCATION: D-3
SPECIE	es: Line	CAPTURE METHOD: Set Line
	RE TIME: 1230	EXAMINATION TIME: 1248
GROSS	EXTERNAL EXAMINATION	
Skin:	( X) Normal ( ) Excessive muc ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagic ( ) Blister ( ) Tumour	( ) Abnormal Colour ( ) Multiple ( ) Closed ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
	Location:	
	Wet mount/smear:	
Eyes:	( X ) Normal ( ) Exophthal ( ) Opaque cornea ( ) Lens lost	Lmia ( ) Cataract ( ) Haemorrhagic ( ) Parasites ( ) Bilateral
Fins:	( X) Normal ( ) Frayed	( ) Haemorrhagic
	Wet mount/smear:	
Gills:	( ) Normal ( ) Pale ( ) Excessive ( ) Telangiectasia ( ) Gas embol ( ) Large Parasites	( ) Mottled ( ) Haemorrhagic e mucus ( ) Hyperplasia i ( ) Cysts
	( ) Darge recastion	( ) Fungus visible
	Wet amount/smear:	
GROSS :		
	Wet amount/smear: INTERNAL EXAMINATION	) Reduced ( ) Petechial Haemorrhagic
Adipose	Wet amount/smear:  INTERNAL EXAMINATION  Tissue: ( ) Normal ( ) Excessive ( ( ) Colour ( ) Enlarge (	) Reduced ( ) Petechial Haemorrhagic
Adipose	Wet amount/smear:  INTERNAL EXAMINATION  Tissue: ( ) Normal ( ) Excessive ( ( ) Colour ( ) ( ) Normal ( ) Enlarge ( ( ) Other ( ) Texture: ( ) Lesions: ( ) Single ( ) Mul ( ) Necrotic ( ) Haemorrhagic (	) Reduced ( ) Petechial Haemorrhagic ) Cysts ) Reduced Colour: ( ) Pale ( ) Mottled
Adipose	Wet amount/smear:  INTERNAL EXAMINATION  Tissue: ( ) Normal ( ) Excessive ( ( ) Colour ( ) ( ) Normal ( ) Enlarge ( ( ) Other ( ) Texture: ( ) Lesions: ( ) Single ( ) Mul ( ) Necrotic ( ) Haemorrhagic (	) Reduced ( ) Petechial Haemorrhagic ) Cysts ) Reduced Colour: ( ) Pale ( ) Mottled tiple ( ) Tumour ) Cyst (parasite) ( ) Cyst (Fluid)
Adipose	Wet amount/smear:  INTERNAL EXAMINATION  Tissue:  ( ) Normal ( ) Excessive ( )  ( ) Normal ( ) Enlarge ( )  ( ) Other Texture:  ( ) Lesions: ( ) Single ( ) Mul  ( ) Necrotic ( ) Haemorrhagic ( )  ( ) Normal ( ) Enlarged  ( ) Cyst(parasite) ( ) Cyst (flustices:	) Reduced ( ) Petechial Haemorrhagic ) Cysts ) Reduced Colour: ( ) Pale ( ) Mottled tiple ( ) Tumour ) Cyst (parasite) ( ) Cyst (Fluid)
Adipose Liver: Spleen:	Wet amount/smear:  INTERNAL EXAMINATION  Tissue:  ( ) Normal ( ) Excessive ( )  ( ) Normal ( ) Enlarge ( )  ( ) Other Texture:  ( ) Lesions: ( ) Single ( ) Mul ( ) Necrotic ( ) Haemorrhagic ( )  ( ) Normal ( ) Enlarged ( )  ( ) Cyst(parasite) ( ) Cyst (flustained smear:  ( ) Normal ( ) Distended ( fluid ( ) Flaccid ( ) Haemorrhagic	) Reduced ( ) Petechial Haemorrhagic ) Cysts ) Reduced Colour: ( ) Pale ( ) Mottled  tiple ( ) Tumour ) Cyst (parasite) ( ) Cyst (Fluid)  ( ) Reduced ( ) Raspberry surface  id) ( ) Colour

N.B. In the event that a significant number of specimen at any site have abnormalities, the contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

DATE: 25/10/92

SAMPLE NO.: /O	LOCATION: 03
SPECIES: Ling	CAPTURE METHOD: SetLing
CAPTURE TIME: 1230	EXAMINATION TIME: 1255
GROSS EXTERNAL EXAMINATION	
Skin:     ( × ) Normal     ( ) Exc       ( ) Lesions     ( ) Sir       ( ) Open     ( ) Hae       ( ) 3lister     ( ) Tum	ressive mucus ( ) Abnormal Colour rigle ( ) Multiple ( ) Closec emorrhagic ( ) Necrotic ( ) Ulcer rigur ( ) Lost Scales ( ) Abrasions
Location:	
Wet mount/smear:	
Eyes: ( X ) Normal ( ) Opaque cornea (	<pre>) Exophthalmia ( ) Cataract ( ) Haemorrhagic ) Lens lost ( ) Parasites ( ) Bilateral</pre>
Fins: ( ★ ) Normal ( ) Eroded	) Frayed ( ) Haemorrhagic
Wet mount/smear:	
( ) Necrotic ( ( ) Telangiectasia (	) Pale ( ) Mottled ( ) Haemorrhagic ) Excessive mucus ( ) Hyperplasia ) Gas emboli ( ) Cysts ( ) Fungus Visible
Wet amount/smear:	
GROSS INTERNAL EXAMINATION	
Adipose Tissue:	essive ( ) Reduced ( ) Petechial Haemorrhagic
( ) Other Te	arge ( ) Reduced Colour: ( ) Pale ( ) Mottled exture:  de ( ) Multiple ( ) Tumour  morrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid)
<pre>Spleen:     ( ) Normal</pre>	) Enlarged ( ) Reduced ( ) Raspberry surface ) Cyst (fluid) ( ) Colour
Stained smear:	
Intestines:     ( ) Normal ( ) Diste ( ) Flaccid ( ) Haemo	ended (fluid) ( ) Distended (mucoid) errhagic ( ) Cysts(parasite) ( ) Tumour
<pre>Ridney, Posterior:     ( ) Normal</pre>	rge ( ) Lesions ( ) Single ry, white ( ) Cyst (parasite) ( ) Cyst (fluid)
Stained smear:	
OTHER:	
N.B. In the event that a significontractor is asked to im Phone: 427-1742 or fab to	icant number of specimen at any site have abnormalities, mediately notify the Study Office.  422-3055

DATE: 26/10/92

SAMPLE NO.://	LOCATION: B-2
SPECIES: Ling	CAPTURE METEOD: SetLine
CAPTURE TIME: 0900	EXAMINATION TIME: 0922
GROSS EXTERNAL EXAMINATION	
Skin: (X) Normal ( ) Excessive mu ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagic ( ) Blister ( ) Tumour	Cus ( ) Abnormal Colour ( ) Multiple ( ) Closed ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
Location:	
Wet mount/smear:	
Eyes: ( \( \) Normal ( ) Exophthat ( ) Opaque cornea ( ) Lens los	
Fins: (X) Normal ( ) Frayed_ ( ) Eroded	( ) Haemorrhagic
Wet mount/smear:	
Gills: ( ) Normal ( ) Pale ( ) Necrotic ( ) Excessive ( ) Telangiectasia ( ) Gas embed ( ) Large Parasites	( ) Mottled (X) Haemorrhagic ve mucus ( ) Hyperplasia oli ( ) Cysts ( ) Fungus Visible
Wet amount/smear:	
gross internal examination	
Adipose Tissue: ( ) Normal ( ) Excessive ( ) Colour	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
( ) Other Texture: ( ) Lesions: ( ) Single ( ) Mu	( ) Reduced Colour: ( ) Pale ( ) Mottled altiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen:	l ( ) Reduced ( ) Raspberry surface .uid) ( ) Colour
Stained smear:	<del></del>
Intestines:	aid) ( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour
Fidney, Postarior:	( ) Lesions ( ) Single ( ) Cyst (parasite) ( ) Cyst (fluid)
Stained smear:	
OTHER:	

N.B. In the event that a significant number of specimen at any site have abnormalities, to contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

GROSS PATRULOGI

		DATE:
SAMPLE	: NO.: 12	LOCATION: 8-2
SPECIE	s: Ling	CAPTURE METHOD: Set C
CAPTUR	E TIME: DioU	EXAMINATION TIME: 0932
GROSS	EXTERNAL EXAMINATION	
Skin:	( ) Normal ( ) Excessive muc ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagic ( ) Blister ( ) Tumour	( ) Multiple ( ) Closed ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
		perculum, "lighter" in color overell
	Wet mount/smear:	
	( ) Opaque cornea ( ) Lens los	
Fins:	( / ) Normal ( ) Frayed	( ) Deformed
	Wet mount/smear:	
Gills:	( ) Normal ( X ) Pale ( ) Necrotic ( ) Excessiv ( ) Telangiectasia ( ) Gas embo	( ) Mottled ( ) Haemorrhagic e mucus ( ) Hyperplasia li ( ) Cysts ( ) Fungus Visible
	Wet amount/smear:	
GROSS 1	INTERNAL EXAMINATION	
Adipose	Tissue: ( ) Normal ( ) Excessive ( ) Colour	( ) Reduced ( ) Petecnial Haemorrhagic ( ) Cysts
Liver:	( ) Other Texture: ( ) Lesions: ( ) Single ( ) Mu	( ) Reduced Colour: ( ) Pale ( ) Mottled  ltiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)
Splean	( ) Normal ( ) Enlarged ( ) Cyst(parasite) ( ) Cyst (fl	uid) ( ) Reduced ( ) Raspberry surface
	Stained smear:	
Intesti	ines: ( ) Normal ( ) Distended ( flu ( ) Flaccid ( ) Haemorrhagic	id) ( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour
Kidney	<pre>Posterior:   ( ) Normal</pre>	( ) Lesions ( ) Single ( ) Cyst (parasite) ( ) Cyst (fluid)
	Stained smear:	
OTHER:		
N.B.	In the event that a significant number contractor is asked to immediately Phone: 427-1742 or fab to 422-3055	er of specimen at any site have abnormalities.

DATE: 27/10/92

SAMPLE	No.: 13	LOCATION:
SPECIE	s: Ling	CAPTURE NETHOD: Sof /: NP
CAPTUR	E TIME:	EXAMINATION TIME: 1130
GROSS I	EXTERNAL EXAMINATION	
Skin:	( ) Lesions ( ) ( ) Open ( ) ( ) Blister ( )	Excessive mucus (/) Abnormal Colour Single ( ) Multiple ( ) Closed Haemorrhagic ( ) Necrotic ( ) Ulcer Tumour ( ) Lost Scales ( ) Abrasions
	Location: Black	SPOT on candal fenduncle
	Wet mount/smear:	
Eyes:	( ) Opaque cornea	( ) Exophthalmia ( ) Cataract ( ) Haemorrhagic ( ) Lens lost ( ) Parasites ( ) Bilateral
Fins:	( ) Normal ( ) Eroded	( ) Frayed ( ) Haemorrhagic
Gills:	( ) Necrotic ( ) Telangiectasia	( ) Pale . ( ) Mottled ( ) Haemorrhagic ( ) Excessive mucus ( ) Hyperplasia ( ) Gas emboli ( ) Cysts ( ) Fungus Visible
	Wet amount/smear:	
GROSS I	NTERNAL EXAMINATION	
Adipose	Tissue: ( ) Normal ( ) ( ) Colour	Excessive ( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
Liver:	( ) Other ( ) Si	Enlarge ( ) Reduced Colour: ( ) Pale ( ) Mottled Texture:  Ingle ( ) Multiple ( ) Tumour Haemorrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen:	( ) Normal ( ) Cyst(parasite) Stained smear:	( ) Enlarged ( ) Reduced ( ) Raspberry surface ( ) Cyst (fluid) ( ) Colour
Intesti	nes:	
	( ) Normal ( ) Di ( ) Flaccid ( ) Ha	stended (fluid) ( ) Distended (mucoid) Lemorrhagic ( ) Cysts(parasite) ( ) Tumour
Kidney,	Posterior: ( ) Normal ( ) Er ( ) Multiple ( ) Gr ( ) Tumour	nlarge ( ) Lesions ( ) Single ritty, white ( ) Cyst (parasite) ( ) Cyst (fluid)
	Stained smear:	
OTHER:		
N.B.	In the event that a sig contractor is asked to Phone: 427-1742 or fai	mificant number of specimen at any site have abnormalities, so immediately notify the Study Office. to 422-3055

### NORTHERN RIVER BASINS STUDY

	EXAMINATION SHRETS  GROSS PATHOLOGY
	DATE: 27/10/92
SPECIE	LOCATION: D-/  CAPTURE METHOD: Set Line  ETIME: 1100  EVANIMATION TIME: 1130
	<pre>EXTERNAL EXAMINATION  (</pre>
	Wet mount/smear:
Eyes:	( ) Normal ( ) Exophthalmia ( ) Cataract ( ) Haemorrhagic ( ) Opaque cornea ( ) Lens lost ( ) Parasites ( ) Bilateral
Fins:	( ) Normal ( ) Frayed ( ) Haemorrhagic ( ) Eroded ( ) Deformed
	Wet mount/smear:
Gills:	( ) Normal ( ) Pale ( ) Mottled ( ) Haemorrhagic ( ) Necrotic ( ) Excessive mucus ( ) Hyperplasia ( ) Telangiectasia ( ) Gas emboli ( ) Cysts ( ) Large Parasites ( ) Fungus Visible
	Wet amount/smear:
GROSS I	INTERNAL EXAMINATION
Adipose	Tissue:  ( ) Normal ( ) Excessive ( ) Reduced ( ) Petechial Haemorrhagis ( ) Colour ( ) Cysts

werbene				
	( )	Normal Colour	(	) Excessive ( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
	( )	Other Lesions:	( )	) Enlarge ( ) Reduced Colour: ( ) Pale ( ) Mottled Texture:  Single ( ) Multiple ( ) Tumour ) Haemorrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid)
	( )	Normal Cyst(paras		( ) Enlarged ( ) Reduced ( ) Raspberry surface ( ) Cyst (fluid) ( ) Colour
Intesti	( )	Normal Flaccid	( )	Distended (fluid) ( ) Distended (mucoid) Haemorrhagic ( ) Cysts(parasite) ( ) Tumour
Kidney,	( )	terior: Normal Multiple Tumour	( )	Enlarge ( ) Lesions ( ) Single Gritty, white ( ) Cyst (parasite) ( ) Cyst (fluid)
	Stai	ned smear:		

In the event that a significant number of specimen at any site have abnormalities, N.B. contractor is asked to immediately notify the Study Office.

Phone: 427-1742 or fab to 422-3055

OTHER:

DATE: 27/10

SAMPLE NO.: 15	LOCATION: 13-1
SPECIES: LINY	CAPTURE METHOD: Set Line
CAPTURE TIME: 1400	EXAMINATION TIME: 1/30
GROSS EITERNAL EXAMINATION	
Skin: ( ) Normal ( ) ( ) Lesions ( ) ( ) Open ( ) ( ) Blister ( )	Excessive mucus ( ) Abnormal Colour Single ( ) Multiple ( ) Closed Haemorrhagic ( ) Necrotic ( ) Ulcer Tumour ( ) Lost Scales ( ) Abrasions
Location:	
Wet mount/smear:	
Eyes: ( ) Normal ( ) Opaque cornea	( ) Exophthalmia ( ) Cataract ( ) Haemorrhagic ( ) Lens lost ( ) Parasites ( ) Bilateral
Fins: ( // Normal ( ) Eroded	( ) Frayed ( ) Haemorrhagic
Wet mount/smear:	
Gills: (1) Normal ( ) Necrotic ( ) Telangiectasia ( ) Large Parasites	( ) Pale ( ) Mottled ( ) Haemorrhagic ( ) Excessive mucus ( ) Hyperplasia ( ) Gas emboli ( ) Cysts ( ) Fungus Visible
Wet amount/smear:	
GROSS INTERNAL EXAMINATION	
Adipose Tissue:	Excessive ( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
( ) Other ( ) Si	Enlarge ( ) Reduced Colour: ( ) Pale ( ) Mottled Texture: ingle ( ) Multiple ( ) Tumour Haemorrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen:	( ) Enlarged ( ) Reduced ( ) Raspberry surface ( ) Cyst (fluid) ( ) Colour
Stained smear:	
Intestines:	istended (fluid) ( ) Distended (mucoid) aemorrhagic ( ) Cysts(parasite) ( ) Tumour
<pre>Kidney, Posterior:     ( ) Normal ( ) En     ( ) Multiple ( ) Gn     ( ) Tumour</pre>	nlarge ( ) Lesions ( ) Single ritty, white ( ) Cyst (parasite) ( ) Cyst (fluid)
Stained smear:	
OTHER:	
N.B. In the event that a sign contractor is asked to Phone: 427-1742 or fall	gnificant number of specimen at any site have abnormalities, or immediately notify the Study Office. to 422-3055

### NORTHERN RIVER BASINS STUDY EZAMINATION SHEETS

GROSS PATHOLOGY 27/10/92

	DATE: A // TO/	1
SAMPLE NO.:6	LOCATION: D-	/
SPECIES: Ling	CAPTURE METHOD:	Set Line
CAPTURE TIME: 1100	EXAMINATION TIME:	1130
GROSS EXTERNAL EXAMINATION		
Skin: ( Normal ( ) Excessive muc ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagic ( ) Blister ( ) Tumour	rus ( ) Abnormal Co ( ) Multiple ( ) Necrotic ( ) Lost Scales	( ) Closec ( ) Ulcer ( ) Abrasions
Location:	· · · · · · · · · · · · · · · · · · ·	<del></del>
Wet mount/smear:		
Eyes: ( ) Normal ( ) Exophtha ( ) Opaque cornea ( ) Lens los	lmia ( ) Cataract ( t ( ) Parasites (	) Haemorrhagic ) Bilateral
Fins: ( ) Normal ( ) Frayed	( ) Deformed	) Haemorrhagic
Wet mount/smear:		
Gills: ( Normal ( ) Pale ( ) Excessive ( ) Telangiectasia ( ) Gas embo. ( ) Large Parasites	e mucus ( Li ( ) Cysts ( ) Fungus Visib	) Haemorrhagic ) Hyperplasia
Wet amount/smear:  GROSS INTERNAL EXAMINATION		
Adipose Tissue: ( ) Normal ( ) Excessive ( ) Colour	( ) Reduced ( ) ( ) Cysts	Petechial Haemorrhag
Liver: ( ) Normal ( ) Enlarge ( ) Other Texture: ( ) Lesions: ( ) Single ( ) Mul ( ) Necrotic ( ) Haemorrhagic	tiple ( ) Tumour	
<pre>Splean:     ( ) Normal</pre>	( ) Reduced (	) Raspberry surface
Stained smear:		
<pre>Intestines:     ( ) Normal</pre>	.d) ( ) Distended (m ( ) Cysts(parasi	ucoid) te) ( ) Tumour
<pre>Kidney, Posterior:     ( ) Normal ( ) Enlarge     ( ) Multiple ( ) Gritty, white (     ( ) Tumour</pre>	) Lesions ) Cyst (parasite)	( ) Single ( ) Cyst (fluid)
Stained smear:		Thus
OTHER:		

In the event that a significant number of specimen at any site have abnormalities, contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

GRO	SS PATHOLOGY
	DATE: 27/10/92
SAMPLE NO.:	LOCATION: D-1
SPECIES: LING	CAPTURE METHOD: Set Line
CAPTURE TIME: 1100	EXAMINATION TIME: 1130
GROSS EXTERNAL EXAMINATION	
Skin: ( ) Normal ( ) Excessive mu ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagic ( ) Blister ( ) Tumour	( ) Multiple ( ) Closed ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
Location: Black sout LEFT side	MIDNAY under Posterior dorsal L
Wet mount/smear:	
Eyes: (V) Normal ( ) Exophth ( ) Opaque cornea ( ) Lens lo	almia ( ) Cataract ( ) Haemorrhagic st ( ) Parasites ( ) Bilateral
Fins: ( ) Normal ( ) Frayed_ ( ) Eroded	( ) Deformed
Wet mount/smear:	
Gills: (/) Normal ( ) Pale ( ) Excessi ( ) Telangiectasia ( ) Gas emb ( ) Large Parasites	( ) Mottled ( ) Haemorrhagic ve mucus ( ) Hyperplasia oli ( ) Cysts ( ) Fungus Visible
Wet amount/smear:	
gross internal examination	
Adipose Tissue:	
( ) Normal ( ) Excessive ( ) Colour	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
( ) Other Texture: ( ) Lesions: ( ) Single ( ) M	( ) Reduced Colour: ( ) Pale ( ) Mottled ultiple ( ) Tumour
( ) Necrotic ( ) Haemorrnagic	( ) Cyst (parasite) ( ) Cyst (Fluid)
<pre>Spleen:     ( ) Normal</pre>	d ( ) Reduced ( ) Raspberry surface luid) ( ) Colour
Stained smear:	
Intestines:	
( ) Normal ( ) Distended ( fl ( ) Flaccid ( ) Haemorrhagic	uid) ( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour
<pre>Kidney, Posterior:</pre>	( ) Lesions ( ) Single ( ) Cyst (parasite) ( ) Cyst (fluid)
Stained smear:	

N.B. In the event that a significant number of specimen at any site have abnormalities, to contractor is asked to immediately notify the Study Office.

Phone: 427-1742 or fab to 422-3055

### Append:

#### NORTHERN RIVER BASINS STUDY EXAMINATION SHEETS GROSS PATHOLOGY

	DATE: 27/10/92
SAMPLE	NO.: 18 LOCATION: 10-3
SPECIE	S: Ling CAPTURE METHOD: Set Line
CAPTUR	E TIME: 0930 EXAMINATION TIME: 0945
GROSS	external examination
Skin:	( ) Normal ( ) Excessive mucus ( Abnormal Colour ( ) Lesions ( ) Single ( ) Multiple ( ) Closed ( ) Open ( ) Haemorrhagic ( ) Necrotic ( ) Ulcer ( ) Elister ( ) Tumour ( ) Lost Scales ( ) Abrasions
	Location: Black spoton TOP LEFT SIDE ANTERIOR TO DORSAL E,
	Wet mount/smear: Black SNOT on Right caudal Penduncle
	( ) Normal ( ) Exophthalmia ( ) Cataract ( ) Haemorrhagic ( ) Opaque cornea ( ) Lens lost ( ) Parasites ( ) Bilateral
Fins:	( ✓ Normal ( ) Frayed ( ) Haemorrhagic ( ) Eroded ( ) Deformed
	Wet mount/smear:
Gills:	( ) Normal ( ) Pale ( ) Mottled ( ) Haemorrhagic ( ) Necrotic ( ) Excessive mucus ( ) Hyperplasia ( ) Telangiectasia ( ) Gas emboli ( ) Cysts ( ) Large Parasites ( ) Fungus Visible
	Wet amount/smear:
GROSS 1	INTERNAL EXAMINATION
Adipose	Tissue: ( ) Normal ( ) Excessive ( ) Reduced ( ) Petechial Haemorrhagic ( ) Colour ( ) Cysts
	( ) Normal ( ) Enlarge ( ) Reduced Colour: ( ) Pale ( ) Mottled ( ) Other Texture: ( ) Lesions: ( ) Single ( ) Multiple ( ) Tumour ( ) Necrotic ( ) Haemorrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen:	
	( ) Normal ( ) Enlarged ( ) Reduced ( ) Raspberry surface ( ) Cyst(parasite) ( ) Cyst (fluid) ( ) Colour
	Stained smear:
Intesti	nes: ( ) Normal ( ) Distended (fluid) ( ) Distended (mucoid) ( ) Flaccid ( ) Haemorrhagic ( ) Cysts(parasite) ( ) Tumour
Kidney,	Posterior: ( ) Normal ( ) Enlarge ( ) Lesions ( ) Single ( ) Multiple ( ) Gritty, white ( ) Cyst (parasite) ( ) Cyst (fluid) ( ) Tumour
	Stained smear:
OTHER:	
N.B.	In the event that a significant number of specimen at any site have abnormalities, contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

	DATE: 27/10/72
SAMPLE NO.:	LOCATION: 0-3
SPECIES: LING	CAPTURE METHOD: Set Live
CAPTURE TIME: 0930	EXAMINATION TIME: 0945
GROSS EXTERNAL EXAMINATION	
Skin: ( ) Normal ( ) Excessive must ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagic ( ) Blister ( ) Tumour	( ) Multiple ( ) Closed ( ) Necrotic ( ) Ulcer
Location:	
Wet mount/smear:	
Eyes: ( ) Normal ( ) Exophtha ( ) Opaque cornea ( ) Lens los	
Fins: ( / ) Normal ( ) Frayed	( ) Haemorrhagic
Wet mount/smear:	
Gills: ( ) Normal ( ) Pale ( ) Necrotic ( ) Excessiv ( ) Telangiectasia ( ) Gas embo ( ) Large Parasites	( ) Mottled ( ) Haemorrhagic re mucus ( ) Hyperplasia oli ( ) Cysts ( ) Fungus Visible
Wet amount/smear:	
GROSS INTERNAL ELAMINATION	
Adipose Tissue: ( ) Normal ( ) Excessive ( ) Colour	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
( ) Other Texture: ( ) Lesions: ( ) Single ( ) Mu	( ) Reduced Colour: ( ) Pale ( ) Mottled ltiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)
<pre>Spleen:     ( ) Normal</pre>	( ) Reduced ( ) Raspberry surface uid) ( ) Colour
Stained smear:	
Intestines:	
( ) Normal ( ) Distended ( flu ( ) Flaccid ( ) Haemorrhagic	id) ( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour
<pre>Ridney, Posterior:     ( ) Normal ( ) Enlarge     ( ) Multiple ( ) Gritty, white     ( ) Tumour</pre>	( ) Lesions ( ) Single ( ) Cyst (parasite) ( ) Cyst (fluid)
Stained smear:	
OTHER:	

N.B. In the event that a significant number of specimen at any site have abnormalities, to contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

## NORTHERN RIVER BASINS STUDY

	GROSS PATHOLOGY
	DATE: 27/10/92
SAMPLE	NO.: 20 LOCATION: D- 3
SPECIE	capture meteod: Set Line
CAPTUR	TIME: 0930 EXAMINATION TIME: 0945
GROSS	ETERNAL EXAMINATION
Skin:	( ) Normal ( ) Excessive mucus ( ) Abnormal Colour ( ) Lesions ( ) Single ( ) Multiple ( ) Closed ( ) Open ( ) Haemorrhagic ( ) Necrotic ( ) Ulcer ( ) Blister ( ) Tumour ( ) Lost Scales ( ) Abrasions
	Location:
	Wet mount/smear:
	( ) Normal ( ) Exophthalmia ( ) Cataract ( ) Haemorrhagic ( ) Opaque cornea ( ) Lens lost ( ) Parasites ( ) Bilateral
Fins:	( ) Normal ( ) Frayed ( ) Haemorrhagic ( ) Eroded ( ) Deformed
	Wet mount/smear:
Gills:	( ) Normal ( ) Pale ( ) Mottled ( ) Haemorrhagic ( ) Necrotic ( ) Excessive mucus ( ) Hyperplasia ( ) Telangiectasia ( ) Gas emboli ( ) Cysts ( ) Large Parasites ( ) Fungus Visible
	Wet amount/smear:
GROSS :	NTERNAL EXAMINATION
-	Tissue: ( ) Normal ( ) Excessive ( ) Reduced ( ) Petechial Haemorrhagi ( ) Colour ( ) Cysts
Liver:	( ) Normal ( ) Enlarge ( ) Reduced Colour: ( ) Pale ( ) Mottle ( ) Other
Spleen	( ) Normal ( ) Enlarged ( ) Reduced ( ) Raspberry surface ( ) Cyst(parasite) ( ) Cyst (fluid) ( ) Colour
	Stained smear:
Intest	nes: ( ) Normal ( ) Distended ( fluid) ( ) Distended (mucoid) ( ) Flaccid ( ) Haemorrhagic ( ) Cysts(parasite) ( ) Tumour
Kidney	Posterior: ( ) Normal ( ) Enlarge ( ) Lesions ( ) Single ( ) Multiple ( ) Gritty, white ( ) Cyst (parasite) ( ) Cyst (fluid)

In the event that a significant number of specimen at any site have abnormalities, toontractor is asked to immediately notify the Study Office. N.B. Phone: 427-1742 or fab to 422-3055

Stained smear: \_

OTHER: \_

		DATE: 27/10/92	
SAMPLE	No.:2/	LOCATION: D-2	
SPECIE		CAPTURE METHOD: Set Line	
CAPTUR	E TIME: 1020	EXAMINATION TIME: 1040	
GROSS	EXTERNAL EXAMINATION		
Skin:	( Normal ( ) Excess ( ) Lesions ( ) Single ( ) Open ( ) Haemor ( ) Blister ( ) Tumour	sive mucus ( ) Abnormal Colour e ( ) Multiple ( ) Closec rrhagic ( ) Necrotic ( ) Ulcer c ( ) Lost Scales ( ) Abrasions	
	Location:		
	Wet mount/smear:		
		Exophthalmia ( ) Cataract ( ) Haemorrhagic Lens lost ( ) Parasites ( ) Bilateral	
Pins:	( / Normal ( ) F ( ) Eroded	Frayed( ) Haemorrhagic	
	Wet mount/smear:		
Gills:	( / Normal ( ) P ( ) Necrotic ( ) E ( ) Telangiectasia ( ) G ( ) Large Parasites	Pale ( ) Mottled ( ) Haemorrhagic Excessive mucus ( ) Hyperplasia Gas emboli ( ) Cysts ( ) Fungus Visible	
	Wet amount/smear:		
GROSS I	INTERNAL EXAMINATION		
Adipose	Tissue: ( ) Normal ( ) Excess ( ) Colour	sive ( ) Reduced ( ) Petechial Haemorrhagi ( ) Cysts	c
Liver:	( ) Other Textu ( ) Lesions: ( ) Single	ge ( ) Reduced Colour: ( ) Pale ( ) Mottled are: ( ) Multiple ( ) Tumour Trhagic ( ) Cyst (parasite) ( ) Cyst (Fluid)	i
Spleen	( ) Normal ( ) E ( ) Cyst(parasite) ( ) C	Enlarged ( ) Reduced ( ) Raspberry surface Cyst (fluid) ( ) Colour	
	Stained smear:		
Intest	ines: ( ) Normal ( ) Distende ( ) Flaccid ( ) Haemorrh	ed ( fluid) ( ) Distended (mucoid) hagic ( ) Cysts(parasite) ( ) Tumour	
Kidney,	( ) Tumour	( ) Lesions ( ) Single white ( ) Cyst (parasite) ( ) Cyst (fluid)	
	Stained smear:		
OTHER:			
N.B.	In the event that a significa contractor is asked to immed Phone: 427-1742 or fab to 42	ant number of specimen at any site have abnormalities, diately notify the Study Office. 22-3055	=:

		DATE: 27/10/92
SAMPL	E NO.:	LOCATION: D-2
SPECII	es: Ling	CAPTURE METHOD: Set Line
CAPTUR	RE TIME: 1020	EXAMINATION TIME: 1045
GROSS	EXTERNAL EXAMINATION	
Skin:	( ) Normal ( ) Excessive mu ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagic ( ) Blister ( ) Tumour	cus ( ) Abnormal Colour ( ) Multiple ( ) Closec ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
	Location:	
	Wet mount/smear:	
Eyes:	( V) Normal ( ) Exophth. ( ) Opaque cornea ( ) Lens los	almia ( ) Cataract ( ) Haemorrhagic st ( ) Parasites ( ) Bilateral
Fins:	( /) Normal ( ) Frayed_ ( ) Eroded	( ) Haemorrhagic
Gills:	( ) Necrotic ( ) Excession ( ) Telangiectasia ( ) Gas embo	( ) Mottled ( ) Haemorrhagic ve mucus ( ) Hyperplasia oli ( ) Cysts
	( ) Large Parasites	( ) Fungus Visible
	Wet amount/smear:	
GROSS :		
	Wet amount/smear:  INTERNAL EXAMINATION  Tissue:  ( ) Normal ( ) Excessive	
Adipos	Wet amount/smear:  INTERNAL EXAMINATION  Tissue: ( ) Normal ( ) Excessive ( ) Colour  ( ) Normal ( ) Enlarge ( ) Other Texture: ( ) Lesions: ( ) Single ( ) Mu	( ) Reduced ( ) Petechial Haemorrhagis ( ) Cysts ( ) Reduced Colour: ( ) Pale ( ) Mottled
Adipos	Wet amount/smear:  INTERNAL EXAMINATION  Tissue: ( ) Normal ( ) Excessive ( ) Colour  ( ) Normal ( ) Enlarge ( ) Other Texture: ( ) Lesions: ( ) Single ( ) Mu ( ) Necrotic ( ) Haemorrhagic	( ) Reduced ( ) Petechial Haemorrhagis ( ) Cysts ( ) Reduced Colour: ( ) Pale ( ) Mottled
Adipose	Wet amount/smear:  INTERNAL EXAMINATION  Tissue: ( ) Normal ( ) Excessive ( ) Colour  ( ) Normal ( ) Enlarge ( ) Other Texture: ( ) Lesions: ( ) Single ( ) Mu ( ) Necrotic ( ) Haemorrhagic	( ) Reduced ( ) Petechial Haemorrhagis ( ) Cysts ( ) Reduced Colour: ( ) Pale ( ) Mottled (Itiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)
Adipose	Wet amount/smear:  INTERNAL EXAMINATION  Tissue:  ( ) Normal ( ) Excessive  ( ) Colour  ( ) Normal ( ) Enlarge  ( ) Other	( ) Reduced ( ) Petechial Haemorrhagis ( ) Cysts ( ) Reduced Colour: ( ) Pale ( ) Mottled (Itiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)
Adipose Liver: Splean:	Wet amount/smear:  INTERNAL EXAMINATION  Tissue: ( ) Normal ( ) Excessive ( ) Colour  ( ) Normal ( ) Enlarge ( ) Other Texture: ( ) Lesions: ( ) Single ( ) Mu ( ) Necrotic ( ) Haemorrhagic  ( ) Normal ( ) Enlarge ( ) Cyst(parasite) ( ) Cyst (fl  Stained smear: ( ) Normal ( ) Distended ( flu ( ) Flaccid ( ) Haemorrhagic	( ) Reduced ( ) Petechial Haemorrhagis ( ) Cysts  ( ) Reduced Colour: ( ) Pale ( ) Mottled (tiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)  ( ) Reduced ( ) Raspberry surface (uid) ( ) Colour
Adipose Liver: Splean:	Wet amount/smear:  INTERNAL EXAMINATION  Tissue:  ( ) Normal ( ) Enlarge ( ) Other Texture:  ( ) Lesions: ( ) Single ( ) Mu ( ) Necrotic ( ) Haemorrhagic  ( ) Normal ( ) Enlarge ( ) Cyst(parasite) ( ) Cyst (fl  Stained smear:  ( ) Normal ( ) Distended ( flu ( ) Flaccid ( ) Haemorrhagic  , Postsrior: ( ) Normal ( ) Enlarge ( ) Multiple ( ) Gritty, white	( ) Reduced ( ) Petechial Haemorrhagis ( ) Cysts  ( ) Reduced Colour: ( ) Pale ( ) Mottled (Itiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)  ( ) Reduced ( ) Raspberry surface (uid) ( ) Colour  (id) ( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour

N.B. In the event that a significant number of specimen at any site have abnormalities, contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

	DATE: 27/10/92
SAMPLE NO.: 23	LOCATION: 13-2
SPECIES: Ling	CAPTURE METHOD: Set Line
CAPTURE TIME: 1000	EXAMINATION TIME: 1050
GROSS EXTERNAL EXAMINATION	
Skin: ( Normal ( ) Excessive mu ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagic ( ) Blister ( ) Tumour	cus ( ) Abnormal Colour ( ) Multiple ( ) Closed ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
Location:	
Wet mount/smear:	
Eyes: ( Normal ( ) Exophtha ( ) Opaque cornea ( ) Lens los	almia ( ) Cataract ( ) Haemorrhagic st ( ) Parasites ( ) Bilateral
Fins: ( \( \simeq \) Normal ( ) Frayed	( ) Haemorrhagic
Wet mount/smear:	
Gills: ( Normal ( ) Pale ( ) Necrotic ( ) Excessiv ( ) Telangiectasia ( ) Gas embo	( ) Mottled ( ) Haemorrhagic re mucus ( ) Hyperplasia oli ( ) Cysts ( ) Fungus Visible
Wet amount/smear:	
GROSS INTERNAL EXAMINATION	
Adipose Tissue:	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
Liver: ( ) Normal ( ) Enlarge ( ) Other Texture: ( ) Lesions: ( ) Single ( ) Mu ( ) Necrotic ( ) Haemorrhagic	( ) Reduced Colour: ( ) Pale ( ) Mottled  Iltiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)
<pre>Splean:     ( ) Normal</pre>	( ) Reduced ( ) Raspberry surface uid) ( ) Colour
Stained smear:	
<pre>Intestines:     ( ) Normal</pre>	id) ( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour
<pre>Ridney, Posterior:     ( ) Normal ( ) Enlarge     ( ) Multiple ( ) Gritty, white     ( ) Tumour</pre>	( ) Lesions ( ) Single ( ) Cyst (parasite) ( ) Cyst (fluid)
Stained smear:	
OTHER:	

N.B. In the event that a significant number of specimen at any site have abnormalities, the contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

DATE:	27/10/92
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SAMPLE	NO.:	24	LOCATION:	17-2	
SPECIE	s:	ins		THOD: 5	Line
CAPTUR	E TIME:	000	EXAMINATIO	ON TIME: /	055
	EFFERNAL EXA				
Skin:	( \sqrt{)} Normal ( ) Lesion: ( ) Open ( ) Blister	( ) Excessi s ( ) Single ( ) Haemorr c ( ) Tumour	ve mucus ( ) ( ) hagic ( )	Abnormal Co. Multiple Necrotic Lost Scales	lour ( ) Closed ( ) Ulcer ( ) Abrasions
	Location: _				
	Wet mount/sm	mear:			
Eyes:		cornea ( ) Exc			
Pins:	(`V) Normal	( ) Fr:	( )	Deformed	) Haemorrhagic
Gills:	Wet mount/sm  ( \( \) Normal  ( ) Necroti  ( ) Telangi ( ) Large E	( ) Pal c ( ) Exc ectasia ( ) Gas Parasites	Le ( )	Mottled ( Cysts Fungus Visib	) Haemorrhagic ) Hyperplasia
	Wet amount/s	mear:			
GROSS 1	INTERNAL EXAM	INATION			
Adipose	Tissue: ( ) Normal ( ) Colour	( ) Excessiv	re ( ) Reduce ( ) Cysts	∍ā ( )	Petechial Haemorrhagic
Liver:	( ) Other _ ( ) Lesions	( ) Enlarge Texture : ( ) Single ( .c ( ) Haemorrh	) Multiple (	) Tumour	( ) Pale ( ) Mottled ) Cyst (Fluid)
Spleen	( ) Normal ( ) Cyst(pa		arged ( ) st (fluid) ( )	Reduced (Colour	) Raspberry surface
	Stained smea				
Intesti	( ) Normal ( ) Flaccio	( ) Distended ( ) Haemorrhag	( fluid) ( )	Distanded (marasi	ucoid) te) ( ) Tumour
Kidney,	Posterior: ( ) Normal ( ) Multipl ( ) Tumour	( ) Enlarge .e ( ) Gritty, wh	( ) Lesion nite ( ) Cyst (	ls (parasite)	( ) Single ( ) Cyst (fluid)
	Stained smea	Ar:			_
OTHER:					
н.В.	contractor i	that a significant is asked to immedia 1742 or fab to 422-	ately notify the	men at any sit Study Office	te have abnormalities,

	. =	DATE: 27	•	
SAMPLE NO.	25	LOCATION:	D-2	
SPECIES:	Liarg		10D: 5/2:	
CAPTURE TIL	Œ: 100U	EXAMINATION	TIME:	
GROSS EXTER	RNAL EXAMINATION			
( )	Normal ( ) Excessive Lesions ( ) Single Open ( ) Haemorrha Blister ( ) Tumour	( ) M ( ) N	bnormal Colour Multiple ( ecrotic ( ost Scales (	) Closed ) Ulcer
Loca	tion:			<del></del>
Wet	mount/smear:			
	Normal ( ) Exop Opaque cornea ( ) Lens			
Pins: ( )	Normal ( ) Fray Eroded	ed( ) De	eformed ( ) H	aemorrhagic
Wet	mount/smear:			<del>,</del>
Gills: ( \( \) ( ) ( )	Normal ( ) Pale Necrotic ( ) Exce Telangiectasia ( ) Gas Large Parasites	ssive mucus emboli ( ) C;	ottled ( ) H ( ) H ysts ungus Visible	aemorrhagic yperplasia
Wet	amount/smear:			
GROSS INTER	NAL EXAMINATION			
Adipose Tis ( ) ( )	sue: Normal ( ) Excessive Colour	( ) Reduced ( ) Cysts	( ) Pete	chial Haemorrhagic
( )	Normal ( ) Enlarge Other Texture: Lesions: ( ) Single ( Necrotic ( ) Haemorrha	Multiple ( )	Tumour	
Spleen:	,	d / N 7-	V > 5	
( )	Normal ( ) Enlar Cyst(parasite) ( ) Cyst	(fluid) ( ) Co	plour	aspherry surface
Stai	ned smear:			
Intestines:				
( )	Normal ( ) Distended ( Flaccid ( ) Haemorrhagic	fluid) ( ) Di	istended (mucoio ysts(parasite)	d) ( ) Tumour
	terior: Normal ( ) Enlarge Multiple ( ) Gritty, whis Tumour	( ) Lesions	( )	) Single ) Cyst (fluid)
Stai	ned smear:			
OTHER:				

N.B. In the event that a significant number of specimen at any site have abnormalities, the contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

	DATE: 27/10/72
21	
SAMPLE NO.: 06	LOCATION:
SPECIES: Live	CAPTURE METHOD: Set Line
CAPTURE TIME: 1000	EXAMINATION TIME: 1005
GROSS EXTERNAL EXAMINATION	
Skin: ( ) Normal ( ) Excessive must ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagic ( ) Blister ( ) Tumour	( ) Abnormal Colour ( ) Multiple ( ) Closed ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
Location:	
Wet mount/smear:	
Eyes: ( ) Normal ( ) Exophtha ( ) Opaque cornea ( ) Lens los	almia ( ) Cataract ( ) Haemorrhagic st ( ) Parasites ( ) Bilateral
Fins: ( Normal ( ) Frayed_ ( ) Eroded	( ) Haemorrhagic
Wet mount/smear:	
Gills: () Normal ( ) Pale ( ) Excessiv ( ) Telangiectasia ( ) Gas embo	( ) Mottled ( ) Haemorrhagic re mucus ( ) Hyperplasia pli ( ) Cysts ( ) Fungus Visible
Wet amount/smear:	
gross internal examination	
Adipose Tissue:	
( ) Normal ( ) Excessive ( ) Colour	( ) Reduced ( ) Peternial Haemorrnages ( ) Cysts
Liver: ( ) Normal ( ) Enlarge ( ) Other Texture: ( ) Lesions: ( ) Single ( ) Mu ( ) Necrotic ( ) Haemorrhagic	( ) Reduced Colour: ( ) Pale ( ) Mottled ltiple ( ) Tumour
( ) Necrotic ( ) Haemorrhagic	( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen:	( ) Reduced ( ) Raspberry surface uid) ( ) Colour
Stained smear:	
Intestines:	
( ) Normal ( ) Distended ( flu ( ) Flaccid ( ) Haemorrhagic	id) ( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour
<pre>Ridney, Posterior:     ( ) Normal ( ) Enlarge     ( ) Multiple ( ) Gritty, white     ( ) Tumour</pre>	( ) Lesions ( ) Single ( ) Cyst (parasite) ( ) Cyst (fluid)
Stained smear:	
OTHER:	

N.B. In the event that a significant number of specimen at any site have abnormalities, contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

	DATE: 27//0/72
SAMPLE NO.: 27	LOCATION: D-2
SPECIES: Ling	CAPTURE METHOD: SetLine
CAPTURE TIME: 1030	EXAMINATION TIME:
GROSS EXTERNAL EXAMINATION	
Skin: () Normal () Excessive much () Lesions () Single () Open () Haemorrhagic () Blister () Tumour	( ) Abnormal Colour ( ) Multiple ( ) Closed ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
Location:	
Wet mount/smear:	
Eyes: ( ) Normal ( ) Exophtha ( ) Opaque cornea ( ) Lens los	
Fins: ( Normal ( ) Frayed	( ) Haemorrhagic
Wet mount/smear:	
Gills: ( ) Normal ( ) Pale ( ) Excessiv ( ) Telangiectasia ( ) Gas embo	( ) Mottled ( ) Haemorrhagic e mucus ( ) Hyperplasia li ( ) Cysts ( ) Fungus Visible
Wet amount/smear:	
Wet amount/smear:  GROSS INTERNAL EXAMINATION	( ) Reduced ( ) Perechial Haemorrhagic
Wet amount/smear:  GROSS INTERNAL EXAMINATION  Adipose Tissue:	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts ( ) Reduced Colour: ( ) Pale ( ) Mottled
Wet amount/smear:  GROSS INTERNAL EXAMINATION  Adipose Tissue:	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts ( ) Reduced Colour: ( ) Pale ( ) Mottled
Wet amount/smear:  GROSS INTERNAL EXAMINATION  Adipose Tissue:	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts ( ) Reduced Colour: ( ) Pale ( ) Mottled ltiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)
Wet amount/smear:  GROSS INTERNAL EXAMINATION  Adipose Tissue:	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts ( ) Reduced Colour: ( ) Pale ( ) Mottled ltiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)
Wet amount/smear:  GROSS INTERNAL EXAMINATION  Adipose Tissue:	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts  ( ) Reduced Colour: ( ) Pale ( ) Mottled  Itiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)  ( ) Reduced ( ) Raspberry surface  uid) ( ) Colour
Wet amount/smear:  GROSS INTERNAL EXAMINATION  Adipose Tissue:	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts  ( ) Reduced Colour: ( ) Pale ( ) Mottled  Itiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)  ( ) Reduced ( ) Raspberry surface  uid) ( ) Colour  id) ( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour

N.B. In the event that a significant number of specimen at any site have abnormalities, the contractor is asked to immediately notify the Study Office.

Phone: 427-1742 or fab to 422-3055

14.5		TE: <u>27/10/9</u> 2	
SAMPLE NO.: 28		CATION: D-2	
SPECIES: Lin		PTURE METHOD: 5+	
CAPTURE TIME:	030 EX	AMINATION TIME:	115
GROSS EXTERNAL EXA	MINATION		
Skin: (/) Normal ( ) Lesion ( ) Open ( ) Bliste	( ) Excessive mucus s ( ) Single ( ) Haemorrhagic r ( ) Tumour	( ) Abnormal Color ( ) Multiple ( ) Necrotic ( ) Lost Scales (	Closec ) Ulcer ) Abrasions
Location: _			<del></del>
Wet mount/si	near:		
	( ) Exophthalmicornea ( ) Lens lost		
Fins: ( ) Normal ( ) Eroded	( ) Frayed	( ) Deformed	Haemorrhagic - /
Wet mount/sn	ear:		
Gills: ( Normal ( ) Necroti ( ) Telangi ( ) Large F	( ) Pale .c ( ) Excessive m .ectasia ( ) Gas emboli arasites	( ) Mottled ( ) nucus ( ) ( ) Cysts ( ) Fungus Visible	Haemorrhagic Hyperplasia
Wet amount/s	mear:		
gross internal eiam	INATION		
Adipose Tissue:			
( ) Normal ( ) Colour	( ) Excessive (		techial Haemorrnagi
Liver: ( ) Normal	( ) Enlarge (	) Reduced Colour: (	) Pale ( ) Mottle
( ) Other _ ( ) Lesions ( ) Necroti	Texture: : ( ) Single ( ) Multic c ( ) Haemorrhagic (	ple ( ) Tumour ) Cyst (parasite) ( )	Cyst (Fluid)
Spleen:	( ) Malaura	/ N Madernad	
( ) Normal ( ) Cyst(pa	( ) Enlarged rasite) ( ) Cyst (fluid	( ) Reduced ( ) ) ( ) Colour	Raspberry surface
Stained smea	<b>Σ</b> :		
Intestines:			
( ) Normal ( ) Flaccid	( ) Distended ( fluid) ( ) Haemorrhagic	<pre>( ) Distended (mucc ( ) Cvsts(parasite)</pre>	oid) ( ) Tumour
Ridney, Posterior:		, , , , , , , , , , , , , , , , , , , ,	, , , , , , , , , , , , , , , , , , , ,
( ) Normal ( ) Multipl ( ) Tumour	( ) Enlarge ( e ( ) Gritty, white (	) Lesions ( ) Cyst (parasite) (	) Single ) Cyst (fluid)
Stained smea	r:		
OTHER:			
N.B. In the event	that a significant number of	of specimen at any site	have abnormalities.
contractor i	s asked to immediately not 742 or fab to 422-3055		

	DATE:
SAMPLE NO.: 29	LOCATION: D-2
SPECIES: Ling	CAPTURE METHOD: Ket Line
CAPTURE TIME: 1030	EXAMINATION TIME: 1/20
GROSS EXTERNAL EXAMINATION	
( ) Blister ( ) Tumour	Cus ( Abnormal Colour ( ) Multiple ( ) Closed ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions  Caudal Budurde
Wet mount/smear:	
Eyes: ( Normal ( ) Exophthat ( ) Opaque cornea ( ) Lens los	
Fins: ( Normal ( ) Frayed_ ( ) Eroded	( ) Deformed
Gills: ( Normal ( ) Pale ( ) Necrotic ( ) Excessiv ( ) Telangiectasia ( ) Gas embo	( Mottled ( ) Haemorrhagic re mucus ( ) Hyperplasia bli ( ) Cysts ( ) Fungus Visible
Wet amount/smear:	
GROSS INTERNAL EXAMINATION	
Adipose Tissue:	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
Liver: ( ) Normal ( ) Enlarge	( ) Reduced Colour: ( ) Pale ( ) Mottled  Itiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)
<pre>Spleen:     ( ) Normal</pre>	( ) Reduced ( ) Raspberry surface uid) ( ) Colour
Stained smear:	
<pre>Intestines:     ( ) Normal</pre>	id) ( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour
<pre>Ridney, Postarior:     ( ) Normal ( ) Enlarge     ( ) Multiple ( ) Gritty, white     ( ) Tumour</pre>	( ) Lesions ( ) Single ( ) Cyst (parasite) ( ) Cyst (fluid)
Stained smear:	
OTHER:	

N.B. In the event that a significant number of specimen at any site have abnormalities, to contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

### Append.

### NORTHERN RIVER BASINS STUDY EXAMINATION SHEETS GROSS PATHOLOGY

	DATE: 27/10/92
SAMPLE NO.: 30	LOCATION: <u>D-2</u>
SPECIES: Ling	CAPTURE METHOD: Set Line
CAPTURE TIME: 1030	EXAMINATION TIME: 1/25
GROSS EXTERNAL EXAMINATION	
Skin: ( Normal ( ) Excessive m ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagi ( ) Blister ( ) Tumour	ucus ( ) Abnormal Colour ( ) Multiple ( ) Closec c ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
Location:	
Wet mount/smear:	
Eyes: ( ) Normal ( ) Exophtic	halmia ( ) Cataract ( ) Haemorrhagic Ost ( ) Parasites ( ) Bilateral
Fins: ( ) Normal ( ) Frayed ( ) Eroded	( ) Haemorrhagic
Wet mount/smear:	
Gills: ( / Normal ( ) Pale ( ) Necrotic ( ) Excess: ( ) Telangiectasia ( ) Gas emi ( ) Large Parasites	( ) Mottled ( ) Haemorrhagic ive mucus ( ) Hyperplasia coli ( ) Cysts ( ) Fungus Visible
Wet amount/smear:	
GROSS INTERNAL EXAMINATION	
Adipose Tissue:  ( ) Normal ( ) Excessive ( ) Colour	( ) Reduced ( ) Petechial Haemorrhagic
Liver: ( ) Normal ( ) Enlarge ( ) Other Texture: ( ) Lesions: ( ) Single ( ) >	( ) Reduced Colour: ( ) Pale ( ) Mottled
Spleen:	
( ) Normal ( ) Enlarge ( ) Cyst(parasite) ( ) Cyst (i	ed ( ) Reduced ( ) Raspberry surface fluid) ( ) Colour
Stained smear:	
Intestines:     ( ) Normal ( ) Distended ( fl ( ) Flaccid ( ) Haemorrhagic	Luid) ( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour
<pre>Ridney, Posterior:     ( ) Normal</pre>	( ) Lesions ( ) Single ( ) Cyst (parasite) ( ) Cyst (fluid)
Stained smear:	
OTHER:	
N.B. In the event that a significant num contractor is asked to immediately Phone: 427-1742 or fab to 422-3055	ber of specimen at any site have abnormalities, or notify the Study Office.

	DATE: 28/10/92
SAMPLE NO.: 3/	LOCATION: A-2
SPECIES: Ling	CAPTURE METHOD: 0945
CAPTURE TIME: 0930	EXAMINATION TIME:
GROSS EXTERNAL EXAMINATION	
( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagic ( ) Blister ( ) Tumour Location: Black Sp. 45 -> Mid	(X) Abnormal Colour  ( ) Multiple ( ) Closed ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions  ( ) Way left / And / inc. do.so/ o.c. of head
Wet mount/smear: below richt don	50/
	st ( ) Parasites ( ) Bilateral
Fins: (X) Normal ( ) Frayed_	( ) Haemorrhagic
Wet mount/smear:	
Gills: (/) Normal ( ) Pale ( ) Excession ( ) Telangiectasia ( ) Gas embodiectasia ( ) Large Parasites	ve mucus ( ) Hyperplasia oli ( ) Cysts
Wet amount/smear:	
GROSS INTERNAL EXAMINATION	
Adipose Tissue:  ( ) Normal ( ) Excessive ( ) Colour	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
Liver: ( ) Normal ( ) Enlarge ( ) Other Texture:	( ) Reduced Colour: ( ) Pale ( ) Mottled
( ) Lesions: ( ) Single ( ) Mu	ltiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen:  ( ) Normal ( ) Enlarged ( ) Cyst(parasite) ( ) Cyst (fil	d ( ) Reduced ( ) Raspberry surface
Stained smear:	
Intestines:     ( ) Normal ( ) Distended ( flu     ( ) Flaccid ( ) Haemorrhagic	uid) ( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour
<pre>Kidney, Posterior:     ( ) Normal ( ) Enlarge     ( ) Multiple ( ) Gritty, white     ( ) Tumour</pre>	( ) Lesions ( ) Single ( ) Cyst (parasite) ( ) Cyst (fluid)
Stained smear:	

M.B. In the event that a significant number of specimen at any site have abnormalities, the contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

OTHER:

	DATE: 28/10/92
SAMPLE NO.: 32	LOCATION: A3
	CAPTURE METHOD: Set Line
CAPTURE TIME: 1030	EXAMINATION TIME: 1050
GROSS EXTERNAL EXAMINATION	
Skin: ( ) Normal ( ) Excessive muc ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagic ( ) Blister ( ) Tumour	( ) Abnormal Colour ( ) Multiple ( ) Closec ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
Location: Black spots	@ 6550 0 doisal
Wet mount/smear:	
Eyes: ( \( \setminus \) Normal ( ) Exophtha ( ) Opaque cornea ( ) Lens los	
Pins: (X) Normal () Frayed	( ) Haemorrhagic
Wet mount/smear:	
Gills: ( X) Normal ( ) Pale ( ) Necrotic ( ) Excessive ( ) Telangiectasia ( ) Gas embo. ( ) Large Parasites	( ) Mottled ( ) Haemorrhagic e mucus ( ) Hyperplasia li ( ) Cysts ( ) Fungus Visible
Wet amount/smear:	
GROSS INTERNAL EXAMINATION	
Adipose Tissue:	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
( ) Other Texture:	( ) Reduced Colour: ( ) Pale ( ) Mottled ltiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen:  ( ) Normal ( ) Enlarged ( ) Cyst(parasite) ( ) Cyst (flu	( ) Reduced ( ) Raspberry surface
Stained smear:	
Intestines:	id) / ) Discended (mucaid)
( ) Flaccid ( ) Haemorrhagic	id) ( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour
<pre>Ridney, Posterior:     ( ) Normal ( ) Enlarge     ( ) Multiple ( ) Gritty, white     ( ) Tumour</pre>	( ) Lesions ( ) Single ( ) Cyst (parasite) ( ) Cyst (fluid)
Stained smear:	
OTHER:	

W.B. In the event that a significant number of specimen at any site have abnormalities, contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

	DATE: 28/10/92
SAMPLE NO.: 33	LOCATION: A-3
SPECIES: Line	CAPTURE METHOD: Sef Line
CAPTURE TIME: /030	EXAMINATION TIME: 1055
GROSS EXTERNAL EXAMINATION	
Skin: ( ) Normal ( ) Excessive must ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagic ( ) Blister ( ) Tumour Location:	( ) Abnormal Colour ( ) Multiple ( ) Closed ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
Wet mount/smear:	
Eyes: (X) Normal ( ) Exophtha ( ) Opaque cornea ( ) Lens los	almia ( ) Cataract ( ) Haemorrhagic et ( ) Parasites ( ) Bilateral
Fins: (<) Normal ( ) Frayed	( ) Haemorrhagic
Wet mount/smear:	
Gills: ( X ) Normal ( ) Pale ( ) Necrotic ( ) Excessiv ( ) Telangiectasia ( ) Gas embo ( ) Large Parasites	( ) Mottled ( ) Haemorrhagic e mucus ( ) Hyperplasia li ( ) Cysts ( ) Fungus Visible
Wet amount/smear:	
GROSS INTERNAL EXAMINATION	
	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
Liver: ( ) Normal ( ) Enlarge ( ) Other Texture: ( ) Lesions: ( ) Single ( ) Mu. ( ) Necrotic ( ) Haemorrhagic	( ) Reduced Colour: ( ) Pale ( ) Mottled ltiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen:     ( ) Normal ( ) Enlarged     ( ) Cyst(parasite) ( ) Cyst (fl	( ) Reduced ( ) Raspberry surface wid) ( ) Colour
Stained smear:	
Intestines:     ( ) Normal ( ) Distended ( flu.     ( ) Flaccid ( ) Haemorrhagic	id) ( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour
Kidney, Posterior:  ( ) Normal ( ) Enlarge ( ) Multiple ( ) Gritty, white ( ) Tumour	( ) Lesions ( ) Single ( ) Cyst (parasite) ( ) Cyst (fluid)
Stained smear:	

N.B. In the event that a significant number of specimen at any site have abnormalities, the contractor is asked to immediately notify the Study Office.

Phone: 427-1742 or fab to 422-3055

GR	OSS PATHOLOGY
	DATE: 28/10/92
SAMPLE NO.: 34/	LOCATION: H-3
SPECIES: Ling	CAPTURE METHOD: Set Line
CAPTURE TIME: 1030	EXAMINATION TIME: //00
GROSS EXTERNAL EXAMINATION	
skin: ( ) Normal ( ) Excessive m ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagi ( ) Blister ( ) Tumour	.c ( ) Multiple ( ) Closed .c ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
Location: yellow soot on left is	>70mv3
Wet mount/smear:	
	halmia ( ) Cataract ( ) Haemorrhagic ost ( ) Parasites ( ) Bilateral
Fins: (() Normal () Frayed () Eroded	( ) Haemorrhagic
Wet mount/smear:	
Gills: ( ✓ ) Normal ( ) Pale ( ) Necrotic ( ) Excess ( ) Telangiectasia ( ) Gas em ( ) Large Parasites	( ) rungus visible
GROSS INTERNAL EXAMINATION	
( ) Colour	
( ) Other Texture: ( ) Lesions: ( ) Single ( )	( ) Reduced Colour: ( ) Pale ( ) Mott:  Multiple ( ) Tumour c ( ) Cyst (parasite) ( ) Cyst (Fluid)
Splean:     ( ) Normal ( ) Enlarge     ( ) Cyst(parasite) ( ) Cyst (	ed ( ) Reduced ( ) Raspberry surface fluid) ( ) Colour
Stained smear:	
Intestines:     ( ) Normal ( ) Distended ( f.     ( ) Flaccid ( ) Haemorrhagic	luid) ( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour
<pre>Ridney, Posterior:     ( ) Normal ( ) Enlarge     ( ) Multiple ( ) Gritty, white     ( ) Tumour</pre>	( ) Lesions ( ) Single ( ) Cyst (parasite) ( ) Cyst (fluid)
Stained smear:	

N.B. In the event that a significant number of specimen at any site have abnormalities contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

OTHER:

### NORTHERN RIVER BASINS STUDY EXAMINATION SHEETS

GROSS PATHOLOGY

	DATE: 28/10/92
	NO.: 35 LOCATION: A3
SPECIES	: Ling CAPTURE METHOD: Set Line
	TIME: 1030 EXAMINATION TIME: 1/05
GROSS E	TERNAL EXAMINATION
Skin:	( ) Normal ( ) Excessive mucus ( ) Abnormal Colour ( ) Lesions ( ) Single ( ) Multiple ( ) Closed ( ) Open ( ) Haemorrhagic ( ) Necrotic ( ) Ulcer ( ) Blister ( ) Tumour ( ) Lost Scales ( ) Abrasions ( ) Cocation: 100 good ( ) Show ( )
W	Wet mount/smear:
	<pre> y) Normal</pre>
Fins: (	<pre></pre>
K	et mount/smear:
(	<pre>// Normal ( ) Pale ( ) Mottled ( ) Haemorrhagic Necrotic ( ) Excessive mucus ( ) Hyperplasia Telangiectasia ( ) Gas emboli ( ) Cysts Large Parasites ( ) Fungus Visible</pre>
	et amount/smear:
GROSS IN	TERNAL EXAMINATION
_ (	Tissue:  ) Normal ( ) Excessive ( ) Reduced ( ) Petechial Haemorrhagic ) Colour ( ) Cysts
i	) Normal ( ) Enlarge ( ) Reduced Colour: ( ) Pale ( ) Mottled ) Other
Spleen: (	) Normal ( ) Enlarged ( ) Reduced ( ) Raspberry surface ) Cyst(parasite) ( ) Cyst (fluid) ( ) Colour
S	tained smear:
Intestin ( (	es: ) Normal ( ) Distended ( fluid) ( ) Distended (mucoid) ) Flaccid ( ) Haemorrhagic ( ) Cysts(parasite) ( ) Tumour
<b>Kidney,</b> (	Posterior:  ) Normal ( ) Enlarge ( ) Lesions ( ) Single ) Multiple ( ) Gritty, white ( ) Cyst (parasite) ( ) Cyst (fluid) ) Tumour
S	tained smear:
OTHER: _	
	In the event that a significant number of specimen at any site have abnormalities. Executively asked to immediately notify the Study Office.

Phone: 427-1742 or fab to 422-3055

	DATE: 28/0/172
LE NO. : 36	LOCATION: 5
ies: Linc	CAPTURE METHOD: SFY Line
URE TIME:	EXAMINATION TIME: ///O
S EXTERNAL EXAMINATION	
( ) Normal ( ) Excess ( ) Lesions ( ) Single ( ) Open ( ) Haemon ( ) Blister ( ) Tumour	sive mucus ( ) Abnormal Colour ( ) Multiple ( ) Closed ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
Location:	
Wet mount/smear:	
( X ) Normal ( ) E ( ) Opaque cornea ( ) L	xophthalmia ( ) Cataract ( ) Haemorrhagic ens lost ( ) Parasites ( ) Bilateral
( ≠ ) Normal ( ) F ( ) Eroded	rayed ( ) Haemorrhagic
Wet mount/smear:	
( ) Normal ( ) P ( ) Necrotic ( ) E	ale ( ) Mottled ( ) Haemorrhagic xcessive mucus ( ) Hyperplasia as emboli ( ) Cysts
( ) Large Parasites	( ) Fungus Visible
( ) Large Parasites	( ) Fungus Visible
( ) Large Parasites	( ) Fungus Visible
( ) Large Parasites  Wet amount/smear:  INTERNAL EXAMINATION  SEE Tissue:	( ) Fungus Visible
Wet amount/smear:  INTERNAL EXAMINATION  See Tissue:  ( ) Normal ( ) Excess ( ) Colour  : ( ) Normal ( ) Enlarg ( ) Other Textu ( ) Lesions: ( ) Single	ive ( ) Reduced ( ) Petechial Haemorri
Wet amount/smear:  INTERNAL EXAMINATION  See Tissue:  ( ) Normal ( ) Excess ( ) Colour  ( ) Other ( ) Enlarg ( ) Other ( ) Single ( ) Necrotic ( ) Haemor	ive ( ) Reduced ( ) Petechial Haemorri
Wet amount/smear:  INTERNAL EXAMINATION  See Tissue:  ( ) Normal ( ) Excess ( ) Colour  ( ) Other Textu ( ) Lesions: ( ) Single ( ) Necrotic ( ) Haemor	ive ( ) Reduced ( ) Petechial Haemorri
Wet amount/smear:  INTERNAL EXAMINATION  See Tissue:  ( ) Normal ( ) Excess ( ) Colour  ( ) Other Textu ( ) Lesions: ( ) Single ( ) Necrotic ( ) Haemor	ive ( ) Reduced ( ) Petechial Haemorri
Wet amount/smear:  INTERNAL EXAMINATION  SE Tissue:  ( ) Normal ( ) Excess ( ) Colour  ( ) Other Textu ( ) Lesions: ( ) Single ( ) Necrotic ( ) Haemor  ( ) Cyst(parasite) ( ) C  Stained smear:	ive ( ) Reduced ( ) Petechial Haemorri
Wet amount/smear:  INTERNAL EXAMINATION  Se Tissue:  ( ) Normal ( ) Excess ( ) Colour  ( ) Other Textu ( ) Lesions: ( ) Single ( ) Necrotic ( ) Haemor  ( ) Cyst(parasite) ( ) C  Stained smear:  ( ) Normal ( ) Distende ( ) Flaccid ( ) Haemorrh	ive ( ) Reduced ( ) Petechial Haemorri
Wet amount/smear:  INTERNAL EXAMINATION  See Tissue:  ( ) Normal ( ) Enlarg ( ) Other Textu ( ) Lesions: ( ) Single ( ) Necrotic ( ) Haemor  ( ) Cyst(parasite) ( ) C  Stained smear:  ( ) Normal ( ) Distende ( ) Flaccid ( ) Haemorch  ( ) Posterior: ( ) Normal ( ) Enlarge ( ) Multiple ( ) Gritty,	ive ( ) Reduced ( ) Petechial Haemorri

Phone: 427-1742 or fab to 422-3055

	DATE: 28/10/92
SAMPLE	LOCATION: PAI  CAPTURE METHOD: Sol Line
SPECIE	E TIME: 1000 EXAMINATION TIME: 1115
CAPTUR	E TIME: 1000 EXAMINATION TIME: 1/15
GROSS	EXTERNAL EXAMINATION
Skin:	( ) Normal ( ) Excessive mucus ( ) Abnormal Colour ( ) Lesions ( ) Single ( ) Multiple ( ) Closed ( ) Open ( ) Haemorrhagic ( ) Necrotic ( ) Ulcer ( ) Blister ( ) Tumour ( ) Lost Scales ( ) Abrasions
	Location: I below heft Anterior Doisa, Left Letrelline Ion Rich + Carlo
	Wet mount/smear: Product/
Eyes:	( \( \) Normal ( ) Exophthalmia ( ) Cataract ( ) Haemorrhagic ( ) Opaque cornea ( ) Lens lost ( ) Parasites ( ) Bilateral
Fins:	( ) Normal ( ) Frayed ( ) Haemorrhagic ( ) Eroded ( ) Deformed
	Wet mount/smear:
Gills:	( ✓ ) Normal ( ) Pale ( ) Mottled ( ) Haemorrhagic ( ) Necrotic ( ) Excessive mucus ( ) Hyperplasia ( ) Telangiectasia ( ) Gas emboli ( ) Cysts ( ) Large Parasites ( ) Fungus Visible
	Wet amount/smear:
GROSS :	INTERNAL EXAMINATION
Adipos	Tissue: ( ) Normal ( ) Excessive ( ) Reduced ( ) Petechial Haemorrhagic ( ) Colour ( ) Cysts
Liver:	( ) Normal ( ) Enlarge ( ) Reduced Colour: ( ) Pale ( ) Mottled ( ) Other Texture: ( ) Lesions: ( ) Single ( ) Multiple ( ) Tumour ( ) Necrotic ( ) Haemorrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen	( ) Normal ( ) Enlarged ( ) Reduced ( ) Raspberry surface ( ) Cyst(parasite) ( ) Cyst (fluid) ( ) Colour
	Stained smear:
Intest:	ines: ( ) Normal ( ) Distended ( fluid ) ( ) Distended (mucoid ) ( ) Flaccid ( ) Haemorrhagic ( ) Cysts(parasite) ( ) Tumour
Kidney	, Posterior: ( ) Normal ( ) Enlarge ( ) Lesions ( ) Single ( ) Multiple ( ) Gritty, white ( ) Cyst (parasite) ( ) Cyst (fluid) ( ) Tumour
	Stained smear:
OTHER:	
N.B.	In the event that a significant number of specimen at any site have abnormalities, contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

		D.	ATE:	28/10/92	2	
SAMPLE	жо.: <u>38</u>	L	OCATION:	AI		
	s: Ling	c	APTURE ME	IHOD: Set	Line	
CAPTUR	E TIME: 1000	2	eaninatio	N TIME:	1120	
	EXTERNAL EXAMINATION					
Skin:	( X ) Normal ( ) Ex ( ) Lesions ( ) Si ( ) Open ( ) Ha ( ) Blister ( ) Tu	cessive mucus ngle emorrhagic nour	( )	Abnormal C Multiple Necrotic Lost Scale	Colour ( ) Clo ( ) Ulc es ( ) Abr	sed er asions
	Location:					<del></del>
	Wet mount/smear:					<u></u>
īyes:	( ) Obsdre colles ( ( \( \times \) Nolles	) Exophthalm ) Lens lost	mia ( )	Cataract Parasites	( ) Haemor: ( ) Bilate:	rhagic ral
Pins:	( X) Normal ( ( ) Eroded	) Frayed	( )	Deformed _	( ) Haemor:	rhagic
	Wet mount/smear:		···	<del> </del>		
Gills:	( / ) Normal ( ( ) Necrotic ( ( ) Telangiectasia ( ( ) Large Parasites	) Pale ) Excessive ) Gas empoli	( ) mncn2 ( )	Mottled  Cysts Fungus Vis	( ) Haemori ( ) Hyperpl	rhagic Lasia
	Wet amount/smear:				<u> </u>	
ROSS	INTERNAL EXAMINATION					
dipos	e Tissue:					
-	( ) Normal ( ) Exc	essive (	) Reduce ) Cysts	ed (	) Perecnial	Haemorrhag
	( ) Normal ( ) End ( ) Other Te ( ) Lesions: ( ) Sing ( ) Necrotic ( ) Hae	exture: .e ( ) Mult	iple (	) Tumour		
Spleen	•	,		· •	. , .	·
.preen	( ) Normal ( ( ) Cyst(parasite) (	<pre>) Enlarged ) Cyst (flui</pre>	d) ( )	Reduced Colour	( ) Raspber	ry surface
	Stained smear:					
Intest	ines: ( ) Normal ( ) Dista ( ) Flaccid ( ) Haemo	ended ( fluid orrhagic	) ( )	Distended Cysts(paras	(mucoid) site) (	) Tumour
Cidney	<pre>, Posterior:   ( ) Normal</pre>	ge ( ;y, white (	) Lesion ) Cyst (	ns  parasite	( ) Sing ( ) Cyst	cle (fluid)
	Stained smear:					
THER:						
N.B.	In the event that a signif	icant number	of specin	men at any s	site have abr	normalities
	contractor is asked to in Phone: 427-1742 or fab to	mediately no 422-3055	tify the	Study Offic	ce.	

N.B.

	DATE: 28/10/92
SAMPLE NO.: 39	LOCATION: A/
SPECIES: Ling	CAPTURE METHOD: Set Line
CAPTURE TIME: 1015	EXAMINATION TIME: 1125
GROSS EXTERNAL EXAMINATION	
Skin: ( ) Normal ( ) Excessive mu ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagic ( ) Blister ( ) Tumour	( ) Multiple ( ) Closec ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
Location: Black gods on her	e!
Wet mount/smear:	
Eyes: ('X) Normal ( ) Exophth ( ) Opaque cornea ( ) Lens lo	almia ( ) Cataract ( ) Haemorrhagic st ( ) Parasites ( ) Bilateral
Fins: (大) Normal ( ) Frayed_ ( ) Eroded	( ) Haemorrhagic
Wet mount/smear:	
Gills: ( x) Normal ( ) Pale ( ) Necrotic ( ) Excessi ( ) Telangiectasia ( ) Gas empo ( ) Large Parasites	( ) Mottled ( ) Haemorrhagic re mucus ( ) Hyperplasia oli ( ) Cysts ( ) Fungus Visible
Wet amount/smear:	
Wet amount/smear:  GROSS INTERNAL EXAMINATION  Address Tissus:	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
Wet amount/smear:  GROSS INTERNAL EXAMINATION  Adipose Tissue:	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts ( ) Reduced Colour: ( ) Pale ( ) Mottled (tiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)
Wet amount/smear:  GROSS INTERNAL EXAMINATION  Adipose Tissue:	( ) Cysts ( ) Reduced Colour: ( ) Pale ( ) Mottled
Wet amount/smear:  GROSS INTERNAL EXAMINATION  Adipose Tissue:	( ) Cysts ( ) Reduced Colour: ( ) Pale ( ) Mottled  (ltiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)
Wet amount/smear:  GROSS INTERNAL EXAMINATION  Adipose Tissue:	( ) Cysts ( ) Reduced Colour: ( ) Pale ( ) Mottled Eltiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid) ( ) Reduced ( ) Raspberry surface Euid) ( ) Colour
Wet amount/smear:  GROSS INTERNAL EXAMINATION  Adipose Tissue:	( ) Cysts  ( ) Reduced Colour: ( ) Pale ( ) Mottled litiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)  ( ) Reduced ( ) Raspberry surface and ( ) Colour

N.B. In the event that a significant number of specimen at any site have abnormalities, the contractor is asked to immediately notify the Study Office.

Phone: 427-1742 or fab to 422-3055

DATE: 28/10/92

SAMPL	E NO.: 40	LOCATION: $\frac{\beta-1}{\beta}$
SPECIT	Es: Ling	CAPTURE METHOD: Set Line
CAPTUI	RE TIME:	EXAMINATION TIME: 1/30
GROSS	EXTERNAL EXAMINATION	
Skin:	(	Excessive mucus ( ) Abnormal Colour Single ( ) Multiple ( ) Closed Haemorrhagic ( ) Necrotic ( ) Ulcer Tumour ( ) Lost Scales ( ) Abrasions
	Location:	
	Wet mount/smear:	
Eyes:	( ★) Normal ( ) Opaque cornea	( ) Exophthalmia ( ) Cataract ( ) Haemorrhagic ( ) Lens lost ( ) Parasites ( ) Bilateral
Fins:	( X ) Normal ( ) Eroded	( ) Frayed ( ) Haemorrhagic
	Wet mount/smear:	
Gills:	<pre>( X ) Normal ( ) Necrotic ( ) Telangiectasia ( ) Large Parasites _</pre>	( ) Pale ( ) Mottled ( ) Haemorrhagic ( ) Excessive mucus ( ) Hyperplasia ( ) Gas emboli ( ) Cysts ( ) Fungus Visible
	Wet amount/smear:	
GROSS	INTERNAL EXAMINATION	
Adipos	e Tissue:	
	( ) Normal ( ) ( ) Colour	Excessive ( ) Reduced ( ) Petechial Haemorrhagic
Liver:	( ) Other ( ) Si	Enlarge ( ) Reduced Colour: ( ) Pale ( ) Mottled Texture: .ngle ( ) Multiple ( ) Tumour Haemorrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen:		, , , , , , , , , , , , , , , , , , , ,
, prem	( ) Normal ( ) Cyst(parasite)	( ) Enlarged ( ) Reduced ( ) Raspberry surface ( ) Cyst (fluid) ( ) Colour
	Stained smear:	
Intest		stended (fluid) ( ) Distended (mucoid) emorrhagic ( ) Cysts(parasite) ( ) Tumour
<u>Cidney</u>	, Posterior: ( ) Normal ( ) En ( ) Multiple ( ) Gr ( ) Tumour	clarge ( ) Lesions ( ) Single (itty, white ( ) Cyst (parasite) ( ) Cyst (fluid)
	Stained smear:	
THER:		
ı.B.	In the event that a sig	mificant number of specimen at any site have abnormalities.

N.B. In the event that a significant number of specimen at any site have abnormalities, = contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

			DATE: 28/10	192
SAMPLE	NO.:	-//	LOCATION:	A I
	S:			Set Line
	TIME:		EXAMINATION TIME	: <u>//3</u> 5
	PENERNAL EXAMI			
	( ) Lesions ( ) Open ( ) Blister	Yellow sont o	c ( ) Multip	ple ( ) Closed tic ( ) Ulcer Scales ( ) Abrasions
	·		halmia ( ) Catara ost ( ) Parasi	act ( ) Haemorrhagic tes ( ) Bilateral
Fins:	(X) Normal ( ) Eroded _	( ) Frayed	( ) Deform	( ) Haemorrhagic
	Wet mount/sme	ar:		
	( ) Telangie ( ) Large Pa	ctasia ( ) Gas em rasites	ooli ( ) Cysts ( ) Fungus	ed ( ) Haemorrhagic ( ) Hyperplasia : Visible
		ear:		
	NTERNAL EXAMI	NATION		
Adipose	Tissue: ( ) Normal ( ) Colour _	( ) Excessive	( ) Reduced ( ) Cysts	( ) Petechial Haemorrhagic
Liver:	( ) Normal ( ) Other ( ) Lesions: ( ) Necrotic	( ) Enlarge Texture: ( ) Single ( ) ! ( ) Haemorrhagic	( ) Reduced Co Multiple ( ) Tumo c ( ) Cyst (parasi	lour: ( ) Pale ( ) Mottled ur te) ( ) Cyst (Fluid)
Spleen:	( ) Normal ( ) Cyst(par:	( ) Enlarge asite) ( ) Cyst (:	ed ( ) Reduce fluid) ( ) Colour	d ( ) Raspberry surface
	Stained smear			
Intesti	nes: ( ) Normal ( ) Flaccid	( ) Distended ( fi ( ) Haemorrhagic	luid) ( ) Disten ( ) Cysts()	ded (mucoid) parasite) ( ) Tumour
Kidney,	Postarior: ( ) Normal ( ) Multiple ( ) Tumour	( ) Enlarge ( ) Gritty, white	( ) Lesions ( ) Cyst (parasi	( ) Single te) ( ) Cyst (fluid)
	Stained smear	•		

N.B. In the event that a significant number of specimen at any site have abnormalities, the contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

OTHER:

DATE: 28/10/92

SAMPLE	E NO.:	42	LOCATION: A2	
SPECIE	:s:	Lins	CAPTURE NETHOD: Set Line	
	E TIME:	- 6	_	<del></del>
GROSS	EXCUSRNAL	EXAMINATION		
Skin:	( \( \) No ( ) Le ( ) Op ( ) 31.	rmal ( ) sions ( ) en ( ) ister ( )	) Excessive mucus ( ) Abnormal Colour ) Single ( ) Multiple ( ) Close ) Haemorrhagic ( ) Necrotic ( ) Ulcer Tumour ( ) Lost Scales ( ) Abras:	i
	Location	1:		
	Wet mou	nt/smear:		
Eyes:	( ) Opa	mal ique cornea	( ) Exophthalmia ( ) Cataract ( ) Haemorrha ( ) Lens lost ( ) Parasites ( ) Bilateral	gic
Fins:	( X) No:	mal oded	( ) Frayed ( ) Deformed ( ) Haemorrha	gic
	Wet mour	nt/smear:		
Gills:	( \( \) Nor ( \) Nec ( \) Tel ( \) Lar	mal rotic angiectasia ge Parasites	( ) Pale ( ) Mottled ( ) Haemorrha ( ) Excessive mucus ( ) Hyperplas ( ) Gas emboli ( ) Cysts ( ) Fungus Visible	gic ia
	Wet amou	nt/smear:		
GROSS :	INTERNAL	EXAMINATION		
	e Tissue:			
MITPOS	( ) Nor	mal ()	Excessive ( ) Reduced ( ) Petechial Ha	emorrhagic
Liver:	( ) Oth ( ) Les	erions: ( ) S:	Enlarge ( ) Reduced Colour: ( ) Pale (Texture:	
Spleen:	: ( ) Nor ( ) Cys	mal t(parasite)	( ) Enlarged ( ) Reduced ( ) Raspberry ( ) Cyst (fluid) ( ) Colour	surface
	Stained	smear:		
Intesti	ines:			
	( ) Nor ( ) Fla	mal ( ) Di ccid ( ) Ha	<pre>istended ( fluid) (   ) Distended (mucoid) aemorrhagic</pre>	Tumour
Ridney,	Posteri ( ) Nor ( ) Mul ( ) Tum	mal ( ) Er tiple ( ) Gr	nlarge ( ) Lesions ( ) Single ritty, white ( ) Cyst (parasite) ( ) Cyst (	fluid)
	Stained	smear:		
OTHER:				
N.B.	In the e	vent that a sid	gnificant number of specimen at any site have abnor	malities,
-	contract		o immediately notify the Study Office.	

DATE: 28/10/92

SAMPLE NO.: 43	LOCATION: A2
SPECIES: LING	CAPTURE METHOD: Softing
CAPTURE TIME: 0900	EXAMINATION TIME: 1/4/5
GROSS EXTERNAL EXAMINATION	
Skin: ( \( \) Normal ( )	Excessive mucus ( ) Abnormal Colour Single ( ) Multiple ( ) Closec Haemorrhagic ( ) Necrotic ( ) Ulcer Tumour ( ) Lost Scales ( ) Abrasions
Location:	
Wet mount/smear:	
	( ) Exophthalmia ( ) Cataract ( ) Haemorrhagic ( ) Lens lost ( ) Parasites ( ) Bilateral
Fins: ( / ) Normal ( ) Eroded	( ) Frayed ( ) Haemorrhagic
Wet mount/smear:	
( ) Telangiectasia	( ) Pale ( ) Mottled ( ) Haemorrhagic ( ) Excessive mucus ( ) Hyperplasia ( ) Gas emboli ( ) Cysts ( ) Fungus Visible
Wet amount/smear:	
GROSS INTERNAL EXAMINATION	
Adipose Tissue: ( ) Normal ( ) : ( ) Colour	Excessive ( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
( ) Other ( ) Lesions: ( ) Si	Enlarge ( ) Reduced Colour: ( ) Pale ( ) Mottled Texture:  ngle ( ) Multiple ( ) Tumour Haemorrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid)
<pre>Splean:</pre>	( ) Enlarged ( ) Reduced ( ) Raspberry surface ( ) Cyst (fluid) ( ) Colour
Stained smear:	
Intestines:     ( ) Normal ( ) Dis     ( ) Flaccid ( ) Has	stended (fluid) ( ) Distended (mucoid) emorrhagic ( ) Cysts(parasite) ( ) Tumour
<pre>Kidney, Posterior:     ( ) Normal ( ) End     ( ) Multiple ( ) Gradient     ( ) Tumour</pre>	large ( ) Lesions ( ) Single ( ) Cyst (parasite) ( ) Cyst (fluid)
Stained smear:	
OTHER:	
N.B. In the event that a sign	nificant number of specimen at any site have abnormalities, = immediately notify the Study Office.

Phone: 427-1742 or fab to 422-3055

DATE: 28/10/92

SAMPLE	NO.:	LOCATION: A 2
SPECIE	s: Ling	CAPTURE METHOD: Sof Line
CAPTUR	E TIME:	00 EXAMINATION TIME: 1/50
GROSS	EXTERNAL EXAMINA	TION
Skin:	( Mormal ( ) Lesions ( ) Open ( ) Blister	( ) Excessive mucus ( ) Abnormal Colour ( ) Single ( ) Multiple ( ) Closed ( ) Haemorrhagic ( ) Necrotic ( ) Ulcer ( ) Tumour ( ) Lost Scales ( ) Abrasions
	Wet mount/smear	=
Eyes:	( X) Normal ( ) Opaque corr	( ) Exophthalmia ( ) Cataract ( ) Haemorrhagic nea ( ) Lens lost ( ) Parasites ( ) Bilateral
Pins:	( X ) Normal ( ) Eroded	( ) Frayed ( ) Haemorrhagic
	Wet mount/smear:	:
Gills:	( / Normal ( ) Necrotic ( ) Telangiecta ( ) Large Paras	( ) Pale ( ) Mottled ( ) Haemorrhagic ( ) Excessive mucus ( ) Hyperplasia asia ( ) Gas emboli ( ) Cysts sites ( ) Fungus Visible
	Wet amount/smear	
GROSS :	INTERNAL EXAMINAT	CION
Adipose	Tissue: ( ) Normal ( ) Colour	( ) Excessive ( ) Reduced ( ) Petechial Haemorrhagi
Liver:	( ) Other( ) Lesions: (	( ) Enlarge ( ) Reduced Colour: ( ) Pale ( ) Mottle Texture: ( ) Single ( ) Multiple ( ) Tumour ( ) Haemorrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen	( ) Normal ( ) Cyst(parasi	( ) Enlarged ( ) Reduced ( ) Raspberry surface te) ( ) Cyst (fluid) ( ) Colour
Intesti	_	
1111496		) Distended (fluid) ( ) Distended (mucoid) ) Haemorrhagic ( ) Cysts(parasite) ( ) Tumour
Ridney,	Posterior: ( ) Normal ( ( ) Multiple ( ( ) Tumour	) Enlarge ( ) Lesions ( ) Single ) Gritty, white ( ) Cyst (parasite) ( ) Cyst (fluid)
	Stained smear: _	
OTHER:		
N.B.	In the event that	t a significant number of specimen at any site have abnormalities,

W.B. In the event that a significant number of specimen at any site have abnormalities contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

### Appendi:

### NORTHERN RIVER BASINS STUDY EXAMINATION SHEETS GROSS PATHOLOGY

	DATE: 28/10/92
SAMPLE NO.: 45	LOCATION: A3
SPECIES: 45	CAPTURE METHOD: SetLine
CAPTURE TIME: 1000	EXAMINATION TIME: 1/55
GROSS EXTERNAL EXAMINATION	
Skin: (X) Normal ( ) Excessive m ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagi ( ) Blister ( ) Tumour	ucus ( ) Abnormal Colour ( ) Multiple ( ) Closed c ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
Location:	
Wet mount/smear:	
Eyes: ( Y ) Normal ( ) Exophti	nalmia ( ) Cataract ( ) Haemorrhagic est ( ) Parasites ( ) Bilateral
Fins: (X) Normal () Frayed	( ) Haemorrhagic
Wet mount/smear:	
Gills: ( \( \) Normal ( ) Pale ( ) Necrotic ( ) Excess: ( ) Telangiectasia ( ) Gas emit ( ) Large Parasites	( ) Mottled ( ) Haemorrhagic ve mucus ( ) Hyperplasia ooli ( ) Cysts ( ) Fungus Visible
Wet amount/smear:	
GROSS INTERNAL EXAMINATION	
Adipose Tissue:     ( ) Normal	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
/ ) Other Texture:	( ) Reduced Colour: ( ) Pale ( ) Mottled Ultiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen:	d A Dadward A A Danahaman amatan
( ) Normal ( ) Enlarge ( ) Cyst(parasite) ( ) Cyst (f	d ( ) Reduced ( ) Raspberry surface luid) ( ) Colour
Stained smear:	
<pre>Intestines:     ( ) Normal ( ) Distended ( fl     ( ) Flaccid ( ) Haemorrhagic</pre>	uid) ( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour
<pre>Ridney, Posterior:     ( ) Normal ( ) Enlarge     ( ) Multiple ( ) Gritty, white     ( ) Tumour</pre>	( ) Lesions ( ) Single ( ) Cyst (parasite) ( ) Cyst (fluid)
Stained smear:	
OTHER:	

N.B. In the event that a significant number of specimen at any site have abnormalities, Excontractor is asked to immediately notify the Study Office.

Phone: 427-1742 or fab to 422-3055

	DATE: 29/10/92
SAMPLE NO.: 46	LOCATION: C3
SPECIES: Lin	CAPTURE METHOD: 5-4 Line
CAPTURE TIME: 12	00 EXAMINATION TIME: 1239
GROSS EXTERNAL EXAM	
Skin: ( ) Normal ( ) Lesions ( ) Open ( ) Blister	( ) Excessive mucus ( ) Abnormal Colour ( ) Single ( ) Multiple ( ) Closec ( ) Haemorrhagic ( ) Necrotic ( ) Ulcer ( ) Tumour ( ) Lost Scales ( X ) Abrasions
Location:	ead from Capture mighted.
Wet mount/sme	
Eyes: ( X ) Normal ( ) Opaque o	( ) Exophthalmia ( ) Cataract ( ) Haemorrhagic ornea ( ) Lens lost ( ) Parasites ( ) Bilateral
Fins: (X) Normal ( ) Eroded _	( ) Frayed ( ) Haemorrhagic
Wet mount/sme	ar:
Gills: (X) Normal ( ) Necrotic ( ) Telangie ( ) Large Pa	( ) Pale ( ) Mottled ( ) Haemorrhagic ( ) Excessive mucus ( ) Hyperplasia ctasia ( ) Gas emboli ( ) Cysts rasites ( ) Fungus Visible
Wet amount/sm	ear:
Wet amount/sm	
GROSS INTERNAL EXAMI Adipose Tissue:	NATION  ( ) Excessive ( ) Reduced ( ) Petechial Haemorrhagi
GROSS INTERNAL EXAMI Adipose Tissue:	NATION  ( ) Excessive ( ) Reduced ( ) Petechial Haemorrhagi:
GROSS INTERNAL EXAMI  Adipose Tissue:	( ) Excessive ( ) Reduced ( ) Petechial Haemorrhagi:
GROSS INTERNAL EXAMI  Adipose Tissue:	( ) Excessive ( ) Reduced ( ) Petechial Haemorrhagis
GROSS INTERNAL EXAMI  Adipose Tissue:	( ) Excessive ( ) Reduced ( ) Petechial Haemorrhagis
GROSS INTERNAL EXAMI  Adipose Tissue:	( ) Excessive ( ) Reduced ( ) Petechial Haemorrhagis
GROSS INTERNAL EXAMI  Adipose Tissue:	( ) Excessive ( ) Reduced ( ) Petechial Haemorrhaging ( ) Cysts  ( ) Enlarge ( ) Reduced Colour: ( ) Pale ( ) Mottled Texture:  ( ) Single ( ) Multiple ( ) Tumour ( ) Haemorrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid)  ( ) Enlarged ( ) Reduced ( ) Raspberry surface asite) ( ) Cyst (fluid) ( ) Colour

N.B. In the event that a significant number of specimen at any site have abnormalities, contractor is asked to immediately notify the Study Office.

Phone: 427-1742 or fab to 422-3055

DATE: 29/10/92

SAMPLE	No.: 47	LOCATION: C2
SPECIE	s: Ling	CAPTURE METHOD: Set Line
CAPTUR	E TIME: 1145	EXAMINATION TIME: 1243
GROSS :	EXTERNAL EXAMINATION	
Skin:	( X) Normal ( ) Excessive ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhad ( ) Blister ( ) Tumour	mucus ( ) Abnormal Colour ( ) Multiple ( ) Closed gic ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
	Location:	
	Wet mount/smear:	
		hthalmia ( ) Cataract ( ) Haemorrhagic lost ( ) Parasites ( ) Bilateral
Fins:	(X) Normal () Fraye	ed( ) Haemorrhagic
	Wet mount/smear:	
Gills:	( X ) Normal ( ) Pale ( ) Necrotic ( ) Exces ( ) Telangiectasia ( ) Gas e ( ) Large Parasites	( ) Mottled ( ) Haemorrhagic ssive mucus ( ) Hyperplasia emboli ( ) Cysts ( ) Fungus Visible
	Wet amount/smear:	
GROSS I	INTERNAL EXAMINATION	
Adipose	Tissue:	
-	( ) Normal ( ) Excessive ( ) Colour	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
Liver:	( ) Other Texture: ( ) Lesions: ( ) Single ( )	( ) Reduced Colour: ( ) Pale ( ) Mottled  Multiple ( ) Tumour  gic ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen:	: ( ) Normal ( ) Enlar ( ) Cyst(parasite) ( ) Cyst	ged ( ) Reduced ( ) Raspberry surface (fluid) ( ) Colour
	Stained smear:	
Intesti	ines:	
	( ) Normal ( ) Distended ( ) Flaccid ( ) Haemorrhagic	fluid) ( ) Distended (mucoid) c ( ) Cysts(parasite) ( ) Tumour
Kidney,	<pre>, Postarior:   ( ) Normal</pre>	( ) Lesions ( ) Single te ( ) Cyst (parasite) ( ) Cyst (fluid)
	Stained smear:	
OTHER:		
N.B.	In the event that a significant no contractor is asked to immediate Phone: 427-1742 or fab to 422-30	number of specimen at any site have abnormalities, = ely notify the Study Office. 055

	DATE: 29/10/92
SAMPLE NO.: 48	LOCATION:
SAMPLE NO.: 48  SPECIES: Ling	CAPTURE METHOD: Set Line
CAPTURE TIME: 1115	EXAMINATION TIME: 1250
GROSS EXTERNAL EXAMINATION	
( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagic ( X) Blister ( ) Tumour	( ) Abnormal Colour ( ) Multiple ( ) Closed ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
Location: Blister on L. Lete	relline
Wet mount/smear:	
Eyes: (X) Normal ( ) Exophth. ( ) Opaque cornea ( ) Lens lo	
Pins: (★) Normal ( ) Frayed_         ( ) Eroded	( ) Haemorrhagic
Wet mount/smear:	
Gills: ( X ) Normal ( ) Pale ( ) Necrotic ( ) Excession ( ) Telangiectasia ( ) Gas embodiectasia ( ) Large Parasites	ve mucus ( ) Cysts ( ) Hyperplasia
Wet amount/smear:	
GROSS INTERNAL EXAMINATION	
Adipose Tissue:  ( ) Normal ( ) Excessive ( ) Colour	( ) Reduced ( ) Petechial Haemorrhad ( ) Cysts
( ) Other Texture: ( ) Lesions: ( ) Single ( ) Mu	( ) Reduced Colour: ( ) Pale ( ) Motti altiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen:     ( ) Normal ( ) Enlarged     ( ) Cyst(parasite) ( ) Cyst (f)	d ( ) Reduced ( ) Raspberry surface
Stained smear:	
Intestines:	iid) ( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour
<pre>Ridney, Postarior:     ( ) Normal ( ) Enlarge     ( ) Multiple ( ) Gritty, white     ( ) Tumour</pre>	( ) Lesions ( ) Single ( ) Cyst (parasite) ( ) Cyst (fluid)
Stained smear:	

W.B. In the event that a significant number of specimen at any site have abnormalities contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

OTHER:

	DATE: 29/10/92
SAMPLE NO.: 4/9	LOCATION:
SPECIES: Ling	CAPTURE METHOD: Set Line
CAPTURE TIME: 1/15	EXAMINATION TIME: 1253
gross external examination	
Skin: ( ) Normal ( ) Excessive ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhag. ( ) Blister ( ) Tumour	mucus (
Location: Black Spot on he	ed (40p)
Wet mount/smear:	
Eyes: ( X ) Normal ( ) Exopht ( ) Opaque cornea ( ) Lens l	thalmia ( ) Cataract ( ) Haemorrhagic Lost ( ) Parasites ( ) Bilateral
Fins: (X) Normal () Frayed ( ) Eroded	( ) Haemorrhagic
Wet mount/smear:	
Gills: ( Y) Normal ( ) Pale ( ) Necrotic ( ) Excess ( ) Telangiectasia ( ) Gas en ( ) Large Parasites	( ) Mottled ( ) Haemorrhagic sive mucus ( ) Hyperplasia aboli ( ) Cysts ( ) Fungus Visible
Wet amount/smear:	
gross internal examination	
Adipose Tissue:	
( ) Normal ( ) Excessive ( ) Colour	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
( ) Other Texture: _ ( ) Lesions: ( ) Single ( )	( ) Reduced Colour: ( ) Pale ( ) Mottled  Multiple ( ) Tumour  .c ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen:	
( ) Normal ( ) Enlarg ( ) Cyst(parasite) ( ) Cyst (	red ( ) Reduced ( ) Raspberry surface fluid) ( ) Colour
Stained smear:	
Intestines:	
( ) Normal ( ) Distended ( f ( ) Flaccid ( ) Haemorrhagic	<pre>( ) Distended (mucoid)</pre>
Kidney, Posterior:  ( ) Normal ( ) Enlarge ( ) Multiple ( ) Gritty, white ( ) Tumour	( ) Lesions ( ) Single ( ) Cyst (parasite) ( ) Cyst (fluid)
Stained smear:	
OTHER:	

N.B. In the event that a significant number of specimen at any site have abnormalities, the contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

DATE:	29/10/92

SAMPLE	NO .: 30		TION: <u>C2</u>	
SPECIE	s: Line	CAPI	URE METHOD:	set Line
CAPTUR	E TIME: 1/45	EXAM	INATION TIME: _	1257
	etoernal ezamenad			
Skin:	( X) Normal ( ) Lesions ( ) Open ( ) Blister	( ) Excessive mucus ( ) Single ( ) Haemorrhagic ( ) Tumour	( ) Abnormal ( ) Multiple ( ) Necrotic ( ) Lost Scal	Colour ( ) Closec ( ) Ulcer les ( ) Abrasions
	Wet mount/smear:			
		( ) Exophthalmia a ( ) Lens lost		
Fins:	(X) Normal ( ) Eroded	( ) Frayed	( ) Deformed	( ) Haemorrhagic
	Wet mount/smear:			
Gills:	( ) Telangiectas	( ) Pale ( ) Excessive mudia ( ) Gas embolites	( ) Cysts	
	Wet amount/smear:			· · · · · · · · · · · · · · · · · · ·
GROSS :	INTERNAL EXAMINATI	ON		
Adipos	Tissue: ( ) Normal ( ) Colour	( ) Excessive ( )	Reduced (	) Petechial Haemorrhag
Liver:	( ) Other(	( ) Enlarge ( )  Texture:  ) Single ( ) Multiple ( ) Haemorrhagic ( )	ie ( ) Tumour	r: ( ) Pale ( ) Mottle ( ) Cyst (Fluid)
Spleen	: ( ) Normal ( ) Cyst(parasit	( ) Enlarged e) ( ) Cyst (fluid)	( ) Reduced ( ) Colour	( ) Raspberry surface
	Stained smear:			
Intest	ines: ( ) Normal ( ( ) Flaccid (	) Distended ( fluid) ) Haemorrhagic	( ) Distended ( ) Cysts(par	(mucoid) asite) ( ) Tumour
Kidney	Posterior: ( ) Normal ( ( ) Multiple ( ( ) Tumour	) Enlarge ( ) ) Gritty, white ( )	Lesions Cyst (parasite)	( ) Single ( ) Cyst (fluid)
	Stained smear:			
OTHER:				
N.B.	In the event that contractor is ask Phone: 427-1742 of	ed to immediately noti:	specimen at any Ty the Study Off	site have abnormalities ice.

DATE: 29/10/92

SAMPLE	E NO.:	LOCATION: C/
	is: Ling	CAPTURE METHOD: Set Line
	E TIME: _//30	EXAMINATION TIME: 1300
		Banklini IIII.
	EXTERNAL EXAMINATION	
Skin:	( X ) Normal ( ) ( ) ( ) Lesions ( ) ( ) ( ) Open ( ) ( ) ( ) Slister ( ) ( )	Excessive mucus ( ) Abnormal Colour Single ( ) Multiple ( ) Closec Haemorrhagic ( ) Necrotic ( ) Ulcer Tumour ( ) Lost Scales ( ) Abrasions
	Location:	
	Wet mount/smear:	
Syes:	( X) Normal (	( ) Exophthalmia ( ) Cataract ( ) Haemorrhagic ( ) Lens lost ( ) Parasites ( ) Bilateral
Pins:	(X) Normal (	( ) Frayed ( ) Haemorrhagic
	Wet mount/smear:	
Gills:	( ) Normal ( ) Necrotic ( ) Telangiectasia ( ) Large Parasites	( ) Pale ( ) Mottled ( ) Haemorrhagic ( ) Excessive mucus ( ) Hyperplasia ( ) Gas emboli ( ) Cysts ( ) Fungus Visible
	Wet amount/smear:	
ROSS :	INTERNAL EXAMINATION	
Adipose	a Tissue:	
_	( ) Normal ( ) E ( ) Colour	Excessive ( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
iver:	( ) Other ( ) Sin	Inlarge ( ) Reduced Colour: ( ) Pale ( ) Mottled Texture:  Igle ( ) Multiple ( ) Tumour  Raemorrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid)
pleen:	: ( ) Normal ( ( ) Cyst(parasite) (	<pre>) Enlarged ( ) Reduced ( ) Raspberry surface ) Cyst (fluid) ( ) Colour</pre>
	Stained smear:	
ntesti		
		tended (fluid) ( ) Distended (mucoid) morrhagic ( ) Cysts(parasite) ( ) Tumour
idney,	, Posterior: ( ) Normal ( ) Enl ( ) Multiple ( ) Gri ( ) Tumour	arge ( ) Lesions ( ) Single tty, white ( ) Cyst (parasite) ( ) Cyst (fluid)
	Stained smear:	
THER:		
1.B.		ificant number of specimen at any site have abnormalities,
	contractor is asked to Phone: 427-1742 or fab	immediately notify the Study Office. to 422-3055

### Append.

#### NORTHERN RIVER BASINS STUDY EXAMINATION SHEETS GROSS PATHOLOGY

DATE: 29/10/92

<u></u>	LOCATION: C /
CIES: 5	CAPTURE METHOD: Sct Line
TURE TIME:/	230 EXAMINATION TIME: 1304
ss external exam	INATION
( ) Lesions ( ) Open ( ) Blister	( ) Excessive mucus ( / ) Abnormal Colour ( ) Single ( ) Multiple ( ) Closed ( ) Haemorrhagic ( ) Necrotic ( ) Ulcer ( ) Tumour ( ) Lost Scales ( ) Abrasions
Location: <u>U</u>	Abecti bate Cobecteria
Wet mount/sme	
	( ) Exophthalmia ( ) Cataract ( ) Haemorrhagic cornea ( ) Lens lost ( ) Parasites ( ) Bilateral
( X) Normal ( ) Eroded	( ) Frayed ( ) Haemorrhagic
Wet mount/sme Ls: ( X ) Normal	( ) Pale ( ) Mottled ( ) Haemorrhagic ( ) Excessive mucus ( ) Hyperplasia ectasia ( ) Gas emboli ( ) Cysts ( ) Fungus Visible
S INTERNAL EXAMI	CNATION
ose Tissue: ( ) Normal ( ) Colour _	( ) Excessive ( ) Reduced ( ) Petecnial Haemorrh
( ) Normal ( ) Colour _ er: ( ) Normal ( ) Other ( ) Lesions:	( ) Excessive ( ) Reduced ( ) Petecnial Haemorrh
( ) Normal ( ) Colour _ er: ( ) Normal ( ) Other _ ( ) Lesions: ( ) Necrotions:	( ) Cysts  ( ) Enlarge ( ) Reduced Colour: ( ) Pale ( ) Mot Texture: ( ) Single ( ) Multiple ( ) Tumour
( ) Normal ( ) Colour _ er: ( ) Normal ( ) Other _ ( ) Lesions: ( ) Necrotions:	( ) Cysts  ( ) Enlarge ( ) Reduced Colour: ( ) Pale ( ) Mote Texture:  ( ) Single ( ) Multiple ( ) Tumour ( ) Haemorrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid)  ( ) Enlarged ( ) Reduced ( ) Raspberry surfacesite) ( ) Cyst (fluid) ( ) Colour
( ) Normal ( ) Colour _  er: ( ) Normal ( ) Other _ ( ) Lesions: ( ) Necrotic  een: ( ) Normal ( ) Cyst(par Stained smear	( ) Cysts  ( ) Enlarge ( ) Reduced Colour: ( ) Pale ( ) Mote Texture:  ( ) Single ( ) Multiple ( ) Tumour ( ) Haemorrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid)  ( ) Enlarged ( ) Reduced ( ) Raspberry surfacesite) ( ) Cyst (fluid) ( ) Colour
( ) Normal ( ) Colour ( ) Colour ( ) Other ( ) Lesions: ( ) Necrotic ( ) Normal ( ) Cyst(par ( ) Stained smear ( ) Normal ( ) Flaccid ( ) Flaccid	( ) Enlarge ( ) Reduced Colour: ( ) Pale ( ) Mote Texture:  ( ) Single ( ) Multiple ( ) Tumour ( ) Haemorrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid)  ( ) Enlarged ( ) Reduced ( ) Raspberry surfacesite) ( ) Cyst (fluid) ( ) Colour
( ) Normal ( ) Colour ( ) Colour ( ) Other ( ) Lesions: ( ) Necrotic ( ) Normal ( ) Cyst(par Stained smear ( ) Normal ( ) Flaccid ( ) Flaccid ( ) Normal ( ) Multiple	( ) Enlarge ( ) Reduced Colour: ( ) Pale ( ) Mot Texture:  ( ) Single ( ) Multiple ( ) Tumour ( ) Haemorrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid)  ( ) Enlarged ( ) Reduced ( ) Raspberry surfacts:  ( ) Distended ( fluid) ( ) Distended (mucoid) ( ) Haemorrhagic ( ) Cysts(parasite) ( ) Tumour ( ) Enlarge ( ) Lesions ( ) Single ( ) Gritty, white ( ) Cyst (parasite) ( ) Cyst (fluid)

DATE: 29/10/92

SAMPLE NO.: 53	LOCATION: C2
SPECIES: Ling	CAPTURE METHOD: SetLine
CAPTURE TIME: 1000	EXAMINATION TIME: 1309
GROSS EXTERNAL EXAMINATION	
Skin: (X) Normal ( ) Excessive muc ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagic ( ) 3lister ( ) Tumour	( ) Abnormal Colour ( ) Multiple ( ) Closec ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
Location:	
Wet mount/smear:	
Eyes: ( \( \) Normal ( ) Exophtha ( ) Opaque cornea ( ) Lens los	
Fins: ( X) Normal ( ) Frayed	( ) Haemorrhagic
Wet mount/smear:	
Gills: ( X ) Normal ( ) Pale ( ) Necrotic ( ) Excessiv ( ) Telangiectasia ( ) Gas embo	( ) Mottled ( ) Haemorrhagic re mucus ( ) Hyperplasia oli ( ) Cysts ( ) Fungus Visible
Wet amount/smear:	
GROSS INTERNAL EXAMINATION	
Adipose Tissue:  ( ) Normal ( ) Excessive ( ) Colour	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
( ) Other Texture: ( ) Lesions: ( ) Single ( ) Mu	( ) Reduced Colour: ( ) Pale ( ) Mottled ltiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen: ( ) Normal ( ) Enlarged ( ) Cyst(parasite) ( ) Cyst (fl	( ) Reduced ( ) Raspberry surface uid) ( ) Colour
Stained smear:	<del></del>
Intestines:     ( ) Normal ( ) Distended ( flu     ( ) Flaccid ( ) Haemorrhagic	id) ( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour
<pre>Ridney, Posterior:     ( ) Normal ( ) Enlarge     ( ) Multiple ( ) Gritty, white     ( ) Tumour</pre>	( ) Lesions ( ) Single ( ) Cyst (parasite) ( ) Cyst (fluid)
Stained smear:	
OTHER:	

N.B. In the event that a significant number of specimen at any site have abnormalities, contractor is asked to immediately notify the Study Office.

Phone: 427-1742 or fab to 422-3055

(PLE N	0.:5	51/			LOCATIO	ON:	C2			_
ECIES:	5	Lin	<u> </u>		CAPTURI	HETH	OD:	5	+ 4:	10
	TDE:				EZANIN	ATION	TIME: _	13	17	
	TERNAL EXAM									
in: ( ( (	X) Normal ) Lesions ) Open ) Blister	(	) Exce ) Sing ) Haem ) Tumo	essive mu ele corrhagic ur	(cus	) Ai ) Mi ) Ne ) Lo	bnormal ultiple ecrotic ost Scal	Colou ( ( .es (	) Clo ) Ulo ) Abr	osec er asions
Lo	ocation:			<del></del>					<del>.</del>	
We	et mount/sme	ear:	-							
	X ) Normal Opaque									
ns: (	X) Normal ) Eroded	· · ·	( )	Frayed_	(	) De	formed	( )	Haemor	rhagic _
	et mount/sme									
11 /	X) Normal		( )	Pale	(	) Mo	ttled	( )	Haemor Hyperp	rhagic
(	X) Normal ) Necrotic ) Telangie ) Large Pa	: ectasia arasite:	( )	Excession Gas embo	oli (	) Cy ) Fu	sts ngus Vi	sible		- <del>-</del>
(	) Necrotic ) Telangie ) Large Pa	rasites			(	) Fu	sts ngus Vi	sible		
( We	) Large Pa	rasites			(	) Fu	sts ngus Vi	sible		
We OSS INT	) Large Pa et amount/sn TERNAL EXAMI	rasites near: NATION			(	) Fu	ngus Vi		-	<del></del>
We OSS INT	) Large Pa et amount/sn TERNAL EXAMI	rasites near: NATION			(	) Fu	ngus Vi		-	<del></del>
We DSS INT	) Large Part amount/sn ERNAL EXAMI Pissue:  ) Normal ) Colour	mear:	) Exce	ssive	( ) Re( ) Cy	) Fu	Colou	) Per	techial	Haemorri
We DSS INT ipose T ( (  ver: ( ( (	) Large Part amount/street amount/street EXAMI Cissue:  ) Normal ) Colour	near:	) Exces ) Enlar Text	ssive	( ) Re( ) Cy	duced sts	Colou:	) Per	rechial	Haemorri
We DSS INT ipose T ( ( / / / / / / / / / / / / / / / / /	) Large Part amount/strenal EXAMI PISSUB:  ) Normal ) Colour  ) Normal ) Other  ) Lesions:	near:	) Exces ) Enlar Text Single ) Haemo	rge cure: ( ) Mu	( ) Re ( ) Cy ( ) Realtiple ( ) Cy	duced sts iuced ( ) st (pa	Colou: Tumour rasite)	) Per	rechial ) Pale Cyst ()	Haemorri ( ) Mot
We DSS INT ipose T ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( (	) Large Part amount/street amount/street EXAMI Cissue:  ) Normal ) Colour ) Normal ) Other ) Lesions: ) Necrotic	mear:	) Exces ) Enlar Text Single ) Haemo	rge cure: ( ) Mu	( ) Re ( ) Cy ( ) Realtiple ( ) Cy	duced sts iuced ( ) st (pa	Colou: Tumour rasite)	) Per	rechial ) Pale Cyst ()	Haemorri ( ) Mot
We  SS INT  ipose T  ( (  ter: ( ( )  St	) Large Part amount/street amo	mear:	) Exces ) Enlar Text Single ) Haemo	rge ture: ( ) Mi orrhagic Enlarged Cyst (fi	( ) Re ( ) Cy ( ) Re  ultiple ( ) Cy di ( (luid) (	duced sts duced ( ) st (pa	Colou: Tumour rasite) duced lour	) Per	cechial ) Pale Cyst () Raspber	Haemorrh  ( ) Mot Fluid)  rry surfa
We DSS INT ipose T  (  / //er: (  (  (  St	) Large Part amount/smort amount/smort amount/smort amount/smort amount/smort amount/smort amount/smort amount/smort amount/smort amount amoun	mear:	) Exces ) Enlar Text Single ) Haemo	rge ture: ( ) Mi orrhagic Enlarged Cyst (fi	( ) Re ( ) Cy ( ) Re ( ) Cy di ( (luid) (	duced sts duced ( ) st (pa	Colou: Tumour rasite) duced lour	) Per	cechial ) Pale Cyst () Raspber	Haemorrh  ( ) Mot Fluid)  rry surfa
We DSS INT ipose T  ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( (	) Large Part amount/street amo	casites  ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( (	) Exces ) Enlar Text Single ) Haemo ( ) ( )	rge ture:	( ) Re ( ) Cy ( ) Re ( ) Cy di ( (luid) (	duced sts duced ( ) st (pa ) Re ) Co	Colou: Tumour rasite) duced lour stended sts(par:	) Per r: ( ( ) ( ) (muccasite)	Pale Cyst () Raspber	Haemorri ( ) Mot Fluid) rry surfa
We DSS INT Lipose T  ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( (	) Large Part amount/smort amount/smort amount/smort amount/smort amount/smort amount/smort amount am	( ) ( ) ( ) ( ) ( ) ( )	) Exces ) Enlar Text Single ) Haemo ( ) ( )	rge ture:	( ) Re ( ) Cy ( ) Re ( ) Cy di ( (luid) (	duced sts duced ( ) st (pa ) Re ) Co	Colou: Tumour rasite) duced lour stended sts(par:	) Per r: ( ( ) ( ) (muccasite)	Pale Cyst () Raspber	Haemorri ( ) Mot Fluid) rry surfa

DATE: 29/10/92

SAMPLE	No.: 55	LOCATION: C2	
SPECIES: Lins		CAPTURE METHOD: Set Line	
CAPTUR	E TIME:		
GROSS EXTERNAL EXAMINATION			
Skin:	(\formal ) Lesions ( ) Open ( ) Blister	( ) Excessive mucus ( ) Abnormal Colour ( ) Single ( ) Multiple ( ) Closed ( ) Haemorrhagic ( ) Necrotic ( ) Ulcer ( ) Tumour ( ) Lost Scales ( ) Abrasions	
	Location:		
	Wet mount/smear:		
Eyes:	(X) Normal ( ) Opaque corn	( ) Exophthalmia ( ) Cataract ( ) Haemorrhagic ea ( ) Lens lost ( ) Parasites ( ) Bilateral	
Pins:	(√) Normal ( ) Eroded	( ) Frayed ( ) Haemorrhagic	
	Wet mount/smear:		
Gills:	<pre>(X ) Normal ( ) Necrotic ( ) Telangiectas ( ) Large Paras</pre>	( ) Pale ( ) Mottled ( ) Haemorrhagic ( ) Excessive mucus ( ) Hyperplasia sia ( ) Gas emboli ( ) Cysts ( ) Fungus Visible	
	Wet amount/smear:		
GROSS INTERNAL EXAMINATION			
Adipose	Tissue: ( ) Normal ( ) Colour	( ) Excessive ( ) Reduced ( ) Petechial Haemorrhagic	
Liver:	( ) Other (	( ) Enlarge ( ) Reduced Colour: ( \ Pale ( ) Mottled Texture:  ) Single ( ) Multiple ( ) Tumour ( ) Haemorrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid)	
Spleen:	( ) Normal ( ) Cyst(parasit	( ) Enlarged ( ) Reduced ( ) Raspberry surface (e) ( ) Cyst (fluid) ( ) Colour	
	Stained smear: _		
Intesti		) Distended (fluid) ( ) Distended (mucoid) ) Haemorrhagic ( ) Cysts(parasite) ( ) Tumour	
Kidney,	Postarior: ( ) Normal ( ( ) Multiple ( ( ) Tumour	) Enlarge ( ) Lesions ( ) Single ) Gritty, white ( ) Cyst (parasite) ( ) Cyst (fluid)	
	Stained smear:		
OTHER:			
W B	In the event that	a significant number of specimen at any site have abnormalities	

W.B. In the event that a significant number of specimen at any site have abnormalities, to contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

DATE: 31/10/92

SAMPLE NO.: 56	LOCATION: C3
SPECIES: Lins	CAPTURE METHOD: Set Line
CAPTURE TIME: 0950	EXAMINATION TIME: //03
GROSS EXTERNAL EXAMINATION	
Skin: ( X) Normal ( ) Excessive ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhag. ( ) Blister ( ) Tumour	mucus ( ) Abnormal Colour ( ) Multiple ( ) Closec ic ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
Location:	
Wet mount/smear:	
Eyes: ( \( \) Normal ( ) Exopht ( ) Opaque cornea ( ) Lens :	chalmia ( ) Cataract ( ) Haemorrhagic lost ( ) Parasites ( ) Bilateral
Fins: ( X) Normal ( ) Frayed ( ) Eroded	( ) Haemorrhagic
Wet mount/smear:	
Gills: (X) Normal ( ) Pale ( ) Necrotic ( ) Excess ( ) Telangiectasia ( ) Gas en ( ) Large Parasites	( ) Mottled ( ) Haemorrhagic sive mucus ( ) Hyperplasia mboli ( ) Cysts ( ) Fungus Visible
Wet amount/smear:	
GROSS INTERNAL EXAMINATION	
Adipose Tissue:	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
( ) Other Texture: _ ( ) Lesions: ( ) Single ( )	( ) Reduced Colour: ( ) Pale ( ) Mottled  Multiple ( ) Tumour  c ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen:  ( ) Normal ( ) Enlarg  ( ) Cyst(parasite) ( ) Cyst (	ged ( ) Reduced ( ) Raspberry surface fluid) ( ) Colour
Intestines:     ( ) Normal ( ) Distended ( f     ( ) Flaccid ( ) Haemorrhagic	Eluid) ( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour
<pre>Kidney, Posterior:     ( ) Normal ( ) Enlarge     ( ) Multiple ( ) Gritty, white     ( ) Tumour</pre>	( ) Lesions ( ) Single ( ) Cyst (parasite) ( ) Cyst (fluid)
Stained smear:	
OTHER:	
N.B. In the event that a significant nu	mber of specimen at any site have abnormalities,

N.B. In the event that a significant number of specimen at any site have abnormalities, contractor is asked to immediately notify the Study Office.

Phone: 427-1742 or fab to 422-3055

### NORTHERN RIVER BASINS STUDY EXAMINATION SHEETS

GROSS PATHOLOGY

SAMPLE NO.: 57  LOCATION:
GROSS EXTERNAL EXAMINATION  Skin: ( Normal ( ) Excessive mucus ( ) Abnormal Colour ( ) Lesions ( ) Single ( ) Multiple ( ) Closed ( ) Open ( ) Haemorrhagic ( ) Necrotic ( ) Ulcer ( ) Blister ( ) Tumour ( ) Lost Scales ( ) Abrasions
GROSS EXTERNAL EXAMINATION  Skin: ( Normal ( ) Excessive mucus ( ) Abnormal Colour ( ) Lesions ( ) Single ( ) Multiple ( ) Closed ( ) Open ( ) Haemorrhagic ( ) Necrotic ( ) Ulcer ( ) Blister ( ) Tumour ( ) Lost Scales ( ) Abrasions
Skin: ( Normal ( ) Excessive mucus ( ) Abnormal Colour ( ) Lesions ( ) Single ( ) Multiple ( ) Closed ( ) Open ( ) Haemorrhagic ( ) Necrotic ( ) Ulcer ( ) 3lister ( ) Tumour ( ) Lost Scales ( ) Abrasions
Location:
Wet mount/smear:
Eyes: ( X ) Normal ( ) Exophthalmia ( ) Cataract ( ) Haemorrhagic ( ) Opaque cornea ( ) Lens lost ( ) Farasites ( ) Bilateral
Fins: ( ) Normal ( ) Frayed ( ) Deformed ( ) Haemorrhagic
Wet mount/smear:
Gills: ( ) Normal ( ) Pale ( ) Mottled ( ) Haemorrhagic ( ) Necrotic ( ) Excessive mucus ( ) Hyperplasia ( ) Telangiectasia ( ) Gas emboli ( ) Cysts ( ) Large Parasites ( ) Fungus Visible
Wet amount/smear:
GROSS INTERNAL EXAMINATION
Adipose Tissue:  ( ) Normal ( ) Excessive ( ) Reduced ( ) Petechial Haemorrha ( ) Colour ( ) Cysts
Liver: ( ) Normal ( ) Enlarge ( ) Reduced Colour: ( ) Pale ( ) Mott  ( ) Other
Spleen:  ( ) Normal ( ) Enlarged ( ) Reduced ( ) Raspberry surfac ( ) Cyst(parasite) ( ) Cyst (fluid) ( ) Colour
Stained smear:
Intestines:  ( ) Normal ( ) Distended ( fluid) ( ) Distended (mucoid)  ( ) Flaccid ( ) Haemorrhagic ( ) Cysts(parasite) ( ) Tumour
<pre>Kidney, Posterior:     ( ) Normal</pre>
<pre>Ridney, Posterior:    ( ) Normal   ( ) Enlarge</pre>

N.B. In the event that a significant number of specimen at any site have abnormalities, the contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

	DATE: 31/10/92
SAMPLE NO.: <u>58</u>	LOCATION:
SAMPLE NO.: 58  SPECIES: Ling	CAPTURE METHOD: Set Line
CAPTURE TIME: 1005	EXAMINATION TIME:
GROSS EXTERNAL EXAMINATION	
( ) Lesions ( ) Sir ( ) Open ( ) Has ( ) Blister ( ) Tum	cessive mucus  igle ( ) Multiple ( ) Closed emorrhagic ( ) Necrotic ( ) Ulcer hour ( ) Lost Scales ( ) Abrasions
Location:	s on isthmes & belly
	) Exophthalmia ( ) Cataract ( ) Haemorrhagic ) Lens lost ( ) Farasites ( ) Bilateral
Fins: (X) Normal ( ( ) Eroded	) Frayed ( ) Haemorrhagic
Wet mount/smear:	
Gills: ( X ) Normal (	) Pale ( ) Mottled ( ) Haemorrhagic ) Excessive mucus ( ) Hyperplasia ) Gas emboli ( ) Cysts ( ) Fungus Visible
Wet amount/smear:	
GROSS INTERNAL EXAMINATION	
Adipose Tissue:     ( ) Normal ( ) Exc	essive ( ) Reduced ( ) Petechial Haemorrhagic
( ) Other Te ( ) Lesions: ( ) Singl	arge ( ) Reduced Colour: ( ) Pale ( ) Mottled xture: e ( ) Multiple ( ) Tumour morrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid)
<pre>Spleen:</pre>	) Enlarged ( ) Reduced ( ) Raspberry surface ) Cyst (fluid) ( ) Colour
Stained smear:	
<pre>Intestines:     ( ) Normal ( ) Dister     ( ) Flaccid ( ) Haemon</pre>	nded ( fluid) ( ) Distended (mucoid) rrhagic ( ) Cysts(parasite) ( ) Tumour
<pre>Ridney, Posterior:     ( ) Normal ( ) Enlar     ( ) Multiple ( ) Gritt     ( ) Tumour</pre>	ge ( ) Lesions ( ) Single y, white ( ) Cyst (parasite) ( ) Cyst (fluid)
Stained smear:	

N.B. In the event that a significant number of specimen at any site have abnormalities, contractor is asked to immediately notify the Study Office.

Phone: 427-1742 or fab to 422-3055

DATE: 31/10/92

<b>SAMPLE NO.:</b>	LOCATION: C3
SPECIES: Ling	CAPTURE METHOD: Set Line
CAPTURE TIME: 1005	EXAMINATION TIME: 1/2/
GROSS EXTERNAL EXAMINATION	
Skin:     ( / ) Normal     ( ) Excellent       ( ) Lesions     ( ) Sing       ( ) Open     ( ) Haem       ( ) Blister     ( ) Tumo	cessive mucus ( ) Abnormal Colour  gle ( ) Multiple ( ) Closed  corrhagic ( ) Necrotic ( ) Ulcer  cur ( ) Lost Scales ( ) Abrasions
Location:	
Wet mount/smear:	
Eyes: ( 1/2) Normal ( ) ( ) Opaque cornea ( )	Exophthalmia ( ) Cataract ( ) Haemorrhagic Lens lost ( ) Parasites ( ) Bilateral
Fins: ( * ) Normal ( )	Frayed( ) Haemorrhagic
Wet mount/smear:	
Gills: ( X ) Normal ( )     ( ) Necrotic ( )     ( ) Telangiectasia ( )     ( ) Large Parasites	Pale ( ) Mottled ( ) Haemorrhagic Excessive mucus ( ) Hyperplasia Gas emboli ( ) Cysts ( ) Fungus Visible
Wet amount/smear:	
GROSS INTERNAL EXAMINATION	
Adipose Tissue:	ssive ( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
( ) Normal ( ) Exce ( ) Colour	( ) Cysts  rge ( ) Reduced Colour: ( ) Pale ( ) Mottled
( ) Normal ( ) Exce ( ) Colour  Liver: ( ) Normal ( ) Enla ( ) Other Tex ( ) Lesions: ( ) Single ( ) Necrotic ( ) Haem	rge ( ) Reduced Colour: ( ) Pale ( ) Mottled ture: ( ) Multiple ( ) Tumour
( ) Normal ( ) Exce ( ) Colour  Liver: ( ) Normal ( ) Enla ( ) Other Tex ( ) Lesions: ( ) Single ( ) Necrotic ( ) Haem	( ) Cysts  rge ( ) Reduced Colour: ( ) Pale ( ) Mottled  ture: ( ) Multiple ( ) Tumour  orrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid)  Enlarged ( ) Reduced ( ) Raspberry surface  Cyst (fluid) ( ) Colour
( ) Normal ( ) Exce ( ) Colour  Liver: ( ) Normal ( ) Enla ( ) Other Tex ( ) Lesions: ( ) Single ( ) Necrotic ( ) Haem  Spleen: ( ) Normal ( ) ( ) Cyst(parasite) ( )  Stained smear:	( ) Cysts  rge ( ) Reduced Colour: ( ) Pale ( ) Mottled  ture: ( ) Multiple ( ) Tumour  orrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid)  Enlarged ( ) Reduced ( ) Raspberry surface  Cyst (fluid) ( ) Colour
( ) Normal ( ) Exce ( ) Colour  Liver: ( ) Normal ( ) Enla ( ) Other Tex ( ) Lesions: ( ) Single ( ) Necrotic ( ) Haem  Spleen: ( ) Normal ( ) Cyst(parasite) ( )  Stained smear:  [ntestines: ( ) Normal ( ) Disten ( ) Flaccid ( ) Haemor  Kidney Posterior:	rge ( ) Reduced Colour: ( ) Pale ( ) Mottled ture: ( ) Multiple ( ) Tumour orrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid)  Enlarged ( ) Reduced ( ) Raspberry surface Cyst (fluid) ( ) Colour
( ) Normal ( ) Exce ( ) Colour  Liver: ( ) Normal ( ) Enla ( ) Other Tex ( ) Lesions: ( ) Single ( ) Necrotic ( ) Haem  Spleen: ( ) Normal ( ) Cyst(parasite) ( )  Stained smear:  Intestines: ( ) Normal ( ) Disten ( ) Flaccid ( ) Haemor  Ridney, Posterior: ( ) Normal ( ) Enlarg ( ) Multiple ( ) Gritty	rge () Reduced Colour: () Pale () Mottled ture:  () Multiple () Tumour orrhagic () Cyst (parasite) () Cyst (Fluid)  Enlarged () Reduced () Raspberry surface Cyst (fluid) () Colour  ded (fluid) () Distended (mucoid) rhagic () Cysts(parasite) () Tumour  e () Lesions () Single c, white () Cyst (parasite) () Cyst (fluid)
( ) Normal ( ) Exce ( ) Colour  Liver: ( ) Normal ( ) Enla ( ) Other Tex ( ) Lesions: ( ) Single ( ) Necrotic ( ) Haem  Spleen: ( ) Normal ( ) Cyst(parasite) ( )  Stained smear:  Intestines: ( ) Normal ( ) Disten ( ) Flaccid ( ) Haemor  Kidney, Posterior: ( ) Normal ( ) Enlarg ( ) Multiple ( ) Gritty ( ) Tumour	rge () Reduced Colour: () Pale () Mottled ture:  () Multiple () Tumour orrhagic () Cyst (parasite) () Cyst (Fluid)  Enlarged () Reduced () Raspberry surface Cyst (fluid) () Colour  ded (fluid) () Distended (mucoid) rhagic () Cysts(parasite) () Tumour  e () Lesions () Single c, white () Cyst (parasite) () Cyst (fluid)

N.B. In the event that a significant number of specimen at any site have abnormalities, = contractor is asked to immediately notify the Study Office.

Phone: 427-1742 or fab to 422-3055

#### Append:

### NORTHERN RIVER BASINS STUDY EXAMINATION SHEETS

			GROS	S PATHOLO	GY		
				DATE:	31/10/92	_	
SAMPLE	s No.: 6	0		LOCATION:	<u>C/</u>	····	
SPECIE	s:	14		CAPTURE N	ETHOD: Set	Line	
CAPTUR	e time:/	030		EZAMIONATU	ON TIME: _	1128	
GROSS	EXTERNAL EXAM	INATION					
Skin:	( % Normal ( ) Lesions ( ) Open ( ) Blister	( ) Ex ( ) Si ( ) Had ( ) Tur	cessive muc ngle emorrhagic nour	( ( (	) Abnormal ) Multiple ) Necrotic ) Lost Scal	Colour ( ) C ( ) U ( ) U ( ) A	losed lcer brasions
	Location:					<del></del>	
	Wet mount/sme	ar:					
	( X ) Normal						
Fins:	( X) Normal ( ) Eroded _	(	) Frayed	(	Deformed	( ) Haemo	orrhagic
	Wet mount/sme	ar:				<del></del>	
Gills:	( ) Normal ( ) Necrotic ( ) Telangie ( ) Large Pa	ctasia ( rasites	) Pale ) Excessive ) Gas embo	e mucus li ( )	Mottled Cysts Fungus Vi	( ) Haemo ( ) Hyper sible	orrhagic mplasia
	Wet amount/sm	ear:			<del></del>		
GROSS I	NTERNAL EXAMI	NATION					
_	Tissue: ( ) Normal ( ) Colour _	( ) Exc	essive	( ) Reduc	eed (	) Petechia	l Haemorrhagi
	( ) Normal ( ) Other ( ) Lesions: ( ) Necrotic	Te ( ) Singl	xture: e ( ) Mu.	ltipie (	) Tumour		e ( ) Mottler (Fluid)
Splaen:							
	( ) Normal ( ) Cyst(par	asite) (	) Enlarged ) Cyst (flu	rig) ( )	Reduced Colour	( ) Raspb	erry surface
	Stained smear	:					
Intesti	nes: ( ) Normal ( ) Flaccid	( ) Diste ( ) Haemo	nded ( flui rrhagic	_d) ( )	Distended Cysts(para	(mucoid)	) Tumour
	Postsrior: ( ) Normal ( ) Multiple ( ) Tumour	( ) Enlar ( ) Gritt	ge ( y, white (	) Cyst	ns (parasite)	( ) Si: ( ) Cy:	ngle st (fluid)
	Stained smear	:				<del></del>	

In the event that a significant number of specimen at any site have abnormalities, contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

	DATE: 3///0/92
SAMPLE NO.: 61	LOCATION:C/
SPECIES: Ling	CAPTURE METHOD: Set Line
CAPTURE TIME: 1030	EXAMINATION TIME:
GROSS EXTERNAL EXAMINATION	
( ) Lesions ( ) : ( ) Open ( ) ! ( ) Blister ( ) :	Excessive mucus ( X ) Abnormal Colour  Single ( ) Multiple ( ) Closec  Haemorrhagic ( ) Necrotic ( ) Ulcer  Tumour ( ) Lost Scales ( ) Abrasions
Location: Black spots >	behind head & along doesel surface yellow good necessary
Wet mount/smear:	
	( ) Exophthalmia ( ) Cataract ( ) Haemorrhagic ( ) Lens lost ( ) Parasites ( ) Bilateral
Pins: (X) Normal ( ) Eroded	( ) Frayed ( ) Haemorrhagic
Wet mount/smear:	
Gills: ( X) Normal ( ) Necrotic ( ) Telangiectasia ( ( ) Large Parasites	( ) Pale ( ) Mottled ( ) Haemorrhagic ( ) Excessive mucus ( ) Hyperplasia ( ) Gas empoli ( ) Cysts ( ) Fungus Visible
Wet amount/smear:	
GROSS INTERNAL EXAMINATION	
Adipose Tissue:	Excessive ( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
( ) Other ( ) Lesions: ( ) Sir	Inlarge ( ) Reduced Colour: ( ) Pale ( ) Mottled Texture:  Ingle ( ) Multiple ( ) Tumour  Haemorrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen: ( ) Normal ( ( ) Cyst(parasite) (	( ) Enlarged ( ) Reduced ( ) Raspberry surface ( ) Cyst (fluid) ( ) Colour
Stained smear:	
Intestines:     ( ) Normal ( ) Dis     ( ) Flaccid ( ) Has	stended (fluid) ( ) Distended (mucoid) emorrhagic ( ) Cysts(parasite) ( ) Tumour
<pre>Ridney, Posterior:     ( ) Normal ( ) Enl     ( ) Multiple ( ) Grid     ( ) Tumour</pre>	large ( ) Lesions ( ) Single Ltty, white ( ) Cyst (parasite) ( ) Cyst (fluid)
Stained smear:	
○ त्रमान्यः	

In the event that a significant number of specimen at any site have abnormalities, and contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

Append:

DATE: \_ 31/10/92 LOCATION: SAMPLE NO.: CAPTURE METHOD: SPECIES: EXAMINATION TIME: CAPTURE TIME: \_ GROSS EITERNAL EXAMINATION ( ) Excessive mucus ( ) Abnormal Colour ( ) Single ( ) Multiple ( ) Closed ( ) Haemorrhagic ( ) Necrotic ( ) Ulcer ( ) Tumour ( ) Lost Scales ( ) Abrasions Skin: ( ( ) Normal ( ) Lesions ) Open ) Blister Location: \_\_\_\_ Wet mount/smear: \_ Eyes: ( X) Normal ( ) Exophthalmia ( ) Cataract ( ) Haemorrhagic ( ) Opaque cornea ( ) Lens lost ( ) Parasites ( ) Bilateral ( ) Eroded \_\_\_\_ ( ) Frayed\_\_\_\_ Fins: (√) Normal ( ) Haemorrhagic \_ ( ) Deformed \_\_ Wet mount/smear: \_ (\formal ( ) Pale ( ) Mottled ( ) Haemorrhagic ( ) Necrotic ( ) Excessive mucus ( ) Hyperplasia ( ) Telangiectasia ( ) Gas emboli ( ) Cysts ( ) Large Parasites \_\_\_\_\_ ( ) Fungus Visible Gills: ( ) Normal Wet amount/smear: \_\_\_ GROSS INTERNAL EXAMINATION Adipose Tissue: ( ) Normal ( ) Excessive ( ) Reduced ( ) Petechial Haemorrhagic ( ) Colour \_\_\_\_\_ ( ) Cysts Liver: ( ) Normal ( ) Enlarge ( ) Reduced Colour: ( ) Pale ( ) Mottled \_\_\_ Texture: ) Other \_ ) Lesions: ( ) Single ( ) Multiple ( ) Tumour ) Necrotic ( ) Haemorrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid) Spleen: ( ) Enlarged ( ) Reduced ( ) Raspberry surface ) Cyst(parasite) ( ) Cyst (fluid) ( ) Colour \_\_\_ Stained smear: \_\_\_ Intestines: ( ) Normal ( ) Distended ( fluid) ( ) Distended (mucoid) ( ) Flaccid ( ) Haemorrhagic ( ) Cysts(parasite) ( ) Tumour Kidney, Posterior: ( ) Normal ( ) Enlarge ( ) Lesions ) Normal ( ) Enlarge ( ) Lesions ( ) Single ) Multiple ( ) Gritty, white ( ) Cyst (parasite) ( ) Cyst (fluid) ) Tumour Stained smear: \_ OTHER:

In the event that a significant number of specimen at any site have abnormalities, N.B. contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

DATE: 3//10/92

SAMPLE	но.: 63	LOCATION: C/
	s: Ling	CAPTURE METHOD: Set Line
	E TIME: 1015	EXAMINATION TIME: 1/48
	EXTERNAL EXAMINATION	
Skin:	<pre>(★) Normal ( ) Excessive mud ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagic ( ) Blister ( ) Tumour</pre>	cus ( ) Abnormal Colour ( ) Multiple ( ) Closed ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
	Location:	
	Wet mount/smear:	
		almia ( ) Cataract ( ) Haemorrhagic st ( ) Parasites ( ) Bilateral
Pins:	(X) Normal () Frayed	( ) Haemorrhagic
	Wet mount/smear:	
Gills:	( X ) Normal ( ) Pale ( ) Necrotic ( ) Excessiv ( ) Telangiectasia ( ) Gas embo ( ) Large Parasites	( ) Mottled ( ) Haemorrhagic re mucus ( ) Hyperplasia oli ( ) Cysts ( ) Fungus Visible
	Wet amount/smear:	
GROSS :	INTERNAL EXAMINATION	
Adipose	Tissue:	
-	( ) Normal ( ) Excessive ( ) Colour	
Liver:	( ) Other Texture:	( ) Reduced Colour: ( ) Pale ( ) Mottled  (Itiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen	:   ( ) Normal ( ) Enlarged   ( ) Cyst(parasite) ( ) Cyst (fl	( ) Reduced ( ) Raspberry surface
	Stained smear:	
Intest	( ) Normal ( ) Distended ( flu	aid) ( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour
Ridney	<pre>Posterior:   ( ) Normal</pre>	( ) Lesions ( ) Single ( ) Cyst (parasite) ( ) Cyst (fluid)
	Stained smear:	
OTHER:		
н.в.	In the event that a significant number contractor is asked to immediately Phone: 427-1742 or fab to 422-3055	er of specimen at any site have abnormalities, notify the Study Office.

### Append:

#### NORTHERN RIVER BASINS STUDY EXAMINATION SHEETS GROSS PATHOLOGY

GROSS PATHOLOGY

14	BALLS.
SAMPLE NO.: 64	LOCATION: FI
SPECIES: Ling	CAPTURE METHOD: Set Line
CAPTURE TIME: 1400	EXAMINATION TIME: 1610
GROSS EXTERNAL EXAMINATION	
Skin: () Normal () Excessive mu () Lesions () Single () Open () Haemorrhagic () Blister (X) Tumour  Location: Forward R, Lafaral	cus (M) Abnormal Colour ( ) Multiple ( ) Closed ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
Wet mount/smear:	, , , , , , , , , , , , , , , , , , , ,
Eyes: ( X) Normal ( ) Exophth ( ) Opaque cornea ( ) Lens lo	almia ( ) Cataract ( ) Haemorrhagic st ( ) Parasites ( ) Bilateral
Fins: ( X ) Normal ( ) Frayed_ ( ) Eroded	( ) Haemorrhagic
Wet mount/smear:	
Gills: ( X ) Normal ( ) Pale ( ) Necrotic ( ) Excessive ( ) Telangiectasia ( ) Gas embode ( ) Large Parasites  Wet amount/smear:	( ) Mottled ( ) Haemorrhagic re mucus ( ) Hyperplasia oli ( ) Cysts ( ) Fungus Visible
GROSS INTERNAL EXAMINATION	
Adipose Tissue: ( ) Normal ( ) Excessive ( ) Colour	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
( ) Other Texture: ( ) Lesions: ( ) Single ( ) Mu	( ) Reduced Colour: ( ) Pale ( ) Mottled (ltiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen: ( ) Normal ( ) Enlarged ( ) Cyst(parasite) ( ) Cyst (fl	l ( ) Reduced ( ) Raspberry surface
Stained smear:	
Intestines:	( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour
Kidney, Posterior:  ( ) Normal ( ) Enlarge ( ) Multiple ( ) Gritty, white ( ) Tumour	( ) Lesions ( ) Single ( ) Cyst (parasite) ( ) Cyst (fluid)
Stained smear:	
OTHER:	
W B In the event that a gionificant numb	er of specimen at any site have abnormalities.

N.B. In the event that a significant number of specimen at any site have abnormalities, contractor is asked to immediately notify the Study Office.

Phone: 427-1742 or fab to 422-3055

	DATE: 31/10/92
SAMPLE NO.: 65	LOCATION: FQ
SPECIES: LUNG	CAPTURE METHOD: Set Line
CAPTURE TIME: 1410	EXAMINATION TIME: 1617
GROSS EXTERNAL EXAMINATION	
Skin: (X) Normal ( ) Excessive m ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagi ( ) Blister ( ) Tumour	ucus ( ) Abnormal Colour ( ) Multiple ( ) Closed c ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
Location:	
Wet mount/smear:	
Eyes: (X) Normal ( ) Exopht. ( ) Opaque cornea ( ) Lens l	
Fins: (≺) Normal ( ) Frayed ( ) Eroded	( ) Haemorrhagic
Wet mount/smear:	
Gills: (X) Normal ( ) Pale ( ) Necrotic ( ) Excess ( ) Telangiectasia ( ) Gas emi ( ) Large Parasites	( ) Mottled ( ) Haemorrhagic ive mucus ( ) Hyperplasia coli ( ) Cysts ( ) Fungus Visible
Wet amount/smear:	*
Wet amount/smear:  GROSS INTERNAL EXAMINATION	
GROSS INTERNAL EXAMINATION Adipose Tissue:	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
GROSS INTERNAL EXAMINATION  Adipose Tissue:	
GROSS INTERNAL EXAMINATION  Adipose Tissue:     ( ) Normal ( ) Excessive     ( ) Colour  Liver: ( ) Normal ( ) Enlarge     ( ) Other Texture:     ( ) Lesions: ( ) Single ( ) It     ( ) Necrotic ( ) Haemorrhagic	( ) Cysts ( ) Reduced Colour: ( ) Pale ( ) Mottled
GROSS INTERNAL EXAMINATION  Adipose Tissue:     ( ) Normal ( ) Excessive     ( ) Colour  Liver: ( ) Normal ( ) Enlarge     ( ) Other Texture:     ( ) Lesions: ( ) Single ( ) It     ( ) Necrotic ( ) Haemorrhagic	( ) Cysts  ( °) Reduced Colour: ( ) Pale ( ) Mottled  Multiple ( ) Tumour  : ( ) Cyst (parasite) ( ) Cyst (Fluid)
GROSS INTERNAL EXAMINATION  Adipose Tissue:     ( ) Normal ( ) Excessive     ( ) Colour  Liver: ( ) Normal ( ) Enlarge     ( ) Other Texture:     ( ) Lesions: ( ) Single ( ) It     ( ) Necrotic ( ) Haemorrhagic  Splean:     ( ) Normal ( ) Enlarge     ( ) Cyst (parasite) ( ) Cyst (it)  Stained smear:  Intestines:     ( ) Normal ( ) Distended ( file	( ) Cysts  ( °) Reduced Colour: ( ) Pale ( ) Mottled  Multiple ( ) Tumour  : ( ) Cyst (parasite) ( ) Cyst (Fluid)
GROSS INTERNAL EXAMINATION  Adipose Tissue:     ( ) Normal	( ) Cysts  ( ') Reduced Colour: ( ) Pale ( ) Mottled  Multiple ( ) Tumour  ( ) Cyst (parasite) ( ) Cyst (Fluid)  ed ( ) Reduced ( ) Raspberry surface  Fluid) ( ) Colour  .uid) ( ) Distended (mucoid)
GROSS INTERNAL EXAMINATION  Adipose Tissue:	( ) Cysts  ( *) Reduced Colour: ( ) Pale ( ) Mottled  Multiple ( ) Tumour  ( ) Cyst (parasite) ( ) Cyst (Fluid)  ed ( ) Reduced ( ) Raspberry surface  Fluid) ( ) Colour  .uid) ( ) Distended (mucoid)

N.B. In the event that a significant number of specimen at any site have abnormalities, the contractor is asked to immediately notify the Study Office.

Phone: 427-1742 or fab to 422-3055

DATE: 31/10/92

SAMPLE NO.: 66	LOCATION: F/
SPECIES: Ling	CAPTURE METHOD: Set Line
CAPTURE TIME: 1530	EXAMINATION TIME: 1623
GROSS EXTERNAL EXAMINATION	
Skin: ( ) Normal ( ) Excessive material ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagid ( ) Blister ( ) Tumour	(X) Abnormal Colour ( ) Multiple ( ) Closed ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
Location: 2 beck spots or	dursal sertoco
Wet mount/smear:	
Eyes: ( <pre>( <pre>( ) Normal</pre></pre>	
Fins: ( \( \) Normal ( ) Frayed_ ( ) Eroded	( ) Haemorrhagic
Wet mount/smear:	
Gills: ( /) Normal ( ) Pale ( ) Necrotic ( ) Excessi ( ) Telangiectasia ( ) Gas emb ( ) Large Parasites	( ) Mottled ( ) Haemorrhagic we mucus ( ) Hyperplasia coli ( ) Cysts ( ) Fungus Visible
Wet amount/smear:	
GROSS INTERNAL EXAMINATION	
Adipose Tissue:	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
( ) Other Texture: ( ) Lesions: ( ) Single ( ) M	( ) Reduced Colour: ( ) Pale ( ) Mottled ultiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)
<pre>Spleen:     ( ) Normal</pre>	d ( ) Reduced ( ) Raspberry surface luid) ( ) Colour
Stained smear:	
<pre>Intestines:     ( ) Normal ( ) Distended ( fl         ( ) Flaccid ( ) Haemorrhagic</pre>	uid) ( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour
<pre>Kidney, Posterior:     ( ) Normal ( ) Enlarge     ( ) Multiple ( ) Gritty, white     ( ) Tumour</pre>	( ) Lesions ( ) Single ( ) Cyst (parasite) ( ) Cyst (fluid)
Stained smear:	
OTHER:	
	ber of specimen at any site have abnormalities,

N.B. In the event that a significant number of specimen at any site have abnormalities, contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

DATE: 31/10/92

SAMPLE	мо.: 67	LOCATION:F/
SPECIE	s: Ling	CAPTURE METHOD: Set Line
	E TIME: /530	EXAMINATION TIME: 1628
	EXTERNAL EXAMINATION	
	( X ) Normal ( ) ( ) Lesions ( ) ( ) Open ( )	Excessive mucus ( ) Abnormal Colour Single ( ) Multiple ( ) Closed Haemorrhagic ( ) Necrotic ( ) Ulcer Tumour ( ) Lost Scales ( ) Abrasions
	Location:	
	Wet mount/smear:	
Eyes:	( ✓ ) Normal ( ✓ ) Opaque cornea	( ) Exophthalmia ( ) Cataract ( ) Haemorrhagic ( ) Lens lost ( ) Parasites ( ) Bilateral
Fins:	( \( \) Normal ( ) Eroded	( ) Frayed ( ) Haemorrhagic
	Wet mount/smear:	
Gills:	( /) Normal ( ) Necrotic ( ) Telangiectasia ( ) Large Parasites _	( ) Pale ( ) Mottled ( ) Haemorrhagic ( ) Excessive mucus ( ) Hyperplasia ( ) Gas emboli ( ) Cysts ( ) Fungus Visible
	Wet amount/smear:	
GROSS I	NTERNAL EXAMINATION	
Adipose	Tissue: ( ) Normal ( )	Excessive ( ) Reduced ( ) Perechial Haemorrhagic ( ) Cysts
Liver:	( ) Other	Enlarge ( ) Reduced Colour: ( ) Pale ( ) Mottled Texture:  ngle ( ) Multiple ( ) Tumour Haemorrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen:	( ) Normal ( ) Cyst(parasite)	( ) Enlarged ( ) Reduced ( ) Raspberry surface ( ) Cyst (fluid) ( ) Colour
	Stained smear:	
Intesti	nes: ( ) Normal ( ) Di ( ) Flaccid ( ) Ha	stended (fluid) ( ) Distended (mucoid) emorrhagic ( ) Cysts(parasite) ( ) Tumour
Kidney,	Posterior: ( ) Normal ( ) En ( ) Multiple ( ) Gr ( ) Tumour	large ( ) Lesions ( ) Single ( ) Cyst (parasite) ( ) Cyst (fluid)
	Stained smear:	
OTHER:		
н.В.	In the event that a sig contractor is asked to Phone: 427-1742 or fab	nificant number of specimen at any site have abnormalities, immediately notify the Study Office.  to 422-3055

		DATE: 31/10/92
SAMPLE	NO.: 68	LOCATION: F/
SPECIE	s: Lins	CAPTURE METHOD: Set Line
CAPTUR	E TIME: 1500	EXAMINATION TIME: 1635
	EXTERNAL EXAMINATION	
Skin:	( ) Normal ( ) Excessive mu (X) Lesions ( ) Single ( ) Open ( ) Haemorrhagic ( ) Blister ( ) Tumour  Location: lesion Chase of L.	( ) Abnormal Colour ( ) Multiple ( ) Closec ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
	Wet mount/smear:	
Eyes:		almia ( ) Cataract ( ) Haemorrhagic st ( ) Parasites ( ) Bilateral
Fins:	( ) Normal ( ) Frayed_ ( ) Eroded	( ★) Haemorrhagic → /
	Wet mount/smear:	
Gills:	( X) Normal ( ) Pale ( ) Necrotic ( ) Excessive ( ) Telangiectasia ( ) Gas embed ( ) Large Parasites	( ) Mottled ( ) Haemorrhagic ve mucus ( ) Hyperplasia oli ( ) Cysts ( ) Fungus Visible
	Wet amount/smear:	
GROSS I	INTERNAL EXAMINATION	
-	( ) Colour	
Liver:	( ) Other Texture: ( ) Lesions: ( ) Single ( ) Mu	( ) Reduced Colour: ( ) Pale ( ) Mottled altiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen:	( ) Normal ( ) Enlarged ( ) Cyst(parasite) ( ) Cyst (fi	d ( ) Reduced ( ) Raspberry surface luid) ( ) Colour
	Stained smear:	
Intesti	nes: ( ) Normal ( ) Distended ( flu ( ) Flaccid ( ) Haemorrhagic	uid) ( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour
Kidney,	Posterior: ( ) Normal ( ) Enlarge ( ) Multiple ( ) Gritty, white ( ) Tumour	( ) Lesions ( ) Single ( ) Cyst (fluid)
	Stained smear:	
OTHER:		
M.B.	In the event that a significant numb contractor is asked to immediately Phone: 427-1742 or fab to 422-3055	per of specimen at any site have abnormalizies, notify the Study Office.

6	DATE: 3//10/92
SAMPLE NO.: 69	LOCATION: FI
SPECIES: Ling	CAPTURE METHOD: Set Line
CAPTURE TIME: 1540	EXAMINATION TIME: 1645
gross external examination	
Skin: ( ) Normal ( ) Excessive ( ) Lesions ( ) Single ( ) Open ( ) Haemorrha ( ) Blister ( ) Tumour	e mucus ( ) Abnormal Colour ( ) Closed agic ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
Location:	
Wet mount/smear:	
Eyes: ( X) Normal ( ) Exop	phthalmia ( ) Cataract ( ) Haemorrhagic s lost ( ) Parasites ( ) Bilateral
Fins: ( \( \) Normal ( ) Fray ( ) Eroded	yed( ) Haemorrhagic
Wet mount/smear:	
Gills: ( ) Normal ( ) Pale ( ) Necrotic ( ) Exce ( ) Telangiectasia ( ) Gas ( ) Large Parasites	e ( ) Mottled ( ) Haemorrhagic essive mucus ( ) Hyperplasia emboli ( ) Cysts ( ) Fungus Visible
Wet amount/smear:	
ROSS INTERNAL EXAMINATION	
Adipose Tissue: ( ) Normal ( ) Excessive ( ) Colour	e ( ) Reduced ( ) Petechial Haemorrha ( ) Cysts
( ) Other Texture: ( ) Lesions: ( ) Single (	( ) Reduced Colour: ( ) Pale ( ) Mott: ) Multiple ( ) Tumour agic ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen:     ( ) Normal ( ) Enlar     ( ) Cyst(parasite) ( ) Cyst	arged ( ) Reduced ( ) Raspberry surfac : (fluid) ( ) Colour
Stained smear:	
Intestines: ( ) Normal ( ) Distended ( ( ) Flaccid ( ) Haemorrhagic	(fluid) ( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour
<pre>Ridney, Posterior:     ( ) Normal ( ) Enlarge     ( ) Multiple ( ) Gritty, whit     ( ) Tumour</pre>	( ) Lesions ( ) Single ( ) Cyst (parasite) ( ) Cyst (fluid)
Stained smear:	
THER:	
N.B. In the event that a significant no contractor is asked to immediate Phone: 427-1742 or fab to 422-30	number of specimen at any site have abnormalitiesely notify the Study Office.

	DATE: 31/10/92
SAMPLE NO.: 70	LOCATION: F/
SPECIES: Ling	CAPTURE METHOD: Set Line
CAPTURE TIME: 1540	EXAMINATION TIME:
GROSS EXTERNAL EXAMINATION	
Skin: () Normal () Exc (X) Lesions () Sin () Open () Haer () Blister () Tumo	essive mucus ( ) Abnormal Colour gle ( ) Multiple ( ) Closec morrhagic ( ) Necrotic ( ) Ulcer our ( ) Lost Scales ( ) Abrasions R. 5. Je
Wet mount/smear:	
Eyes: (X) Normal ( )	Exophthalmia ( ) Cataract ( ) Haemorrhagic Lens lost ( ) Parasites ( ) Bilateral
Fins: (() Normal ()	Frayed ( ) Haemorrhagic
Wet mount/smear:	
Gills: (\(\nabla\) Normal ( ) ( ) Necrotic ( ) ( ) Telangiectasia ( ) ( ) Large Parasites	Pale ( ) Mottled ( ) Haemorrhagic Excessive mucus ( ) Hyperplasia Gas emboli ( ) Cysts ( ) Fungus Visible
Wet amount/smear:	
Wet amount/smear: GROSS INTERNAL EXAMINATION	
GROSS INTERNAL EXAMINATION  Adipose Tissue: ( ) Normal ( ) Exce	essive ( ) Reduced ( ) Petechial Haemorrhagis ( ) Cysts
GROSS INTERNAL EXAMINATION  Adipose Tissue:     ( ) Normal ( ) Exce     ( ) Colour  Liver: ( ) Normal ( ) Enla     ( ) Other Tex     ( ) Lesions: ( ) Single     ( ) Necrotic ( ) Haem	essive ( ) Reduced ( ) Petechial Haemorrhagis
GROSS INTERNAL EXAMINATION  Adipose Tissue:     ( ) Normal ( ) Excelled ( ) Colour  Liver: ( ) Normal ( ) Enla ( ) Other Tex ( ) Lesions: ( ) Single ( ) Necrotic ( ) Haem  Spleen:	rssive ( ) Reduced ( ) Petechial Haemorrhagic
GROSS INTERNAL EXAMINATION  Adipose Tissue:     ( ) Normal ( ) Excelled ( ) Colour  Liver: ( ) Normal ( ) Enla ( ) Other Tex ( ) Lesions: ( ) Single ( ) Necrotic ( ) Haem  Spleen:	rge ( ) Reduced ( ) Petechial Haemorrhagic  rge ( ) Reduced Colour: ( ) Pale ( ) Mottled  ture: ( ) Multiple ( ) Tumour  corrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid)
GROSS INTERNAL EXAMINATION  Adipose Tissue:	rge ( ) Reduced ( ) Petechial Haemorrhagic  rge ( ) Reduced Colour: ( ) Pale ( ) Mottled  ture: ( ) Multiple ( ) Tumour  corrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid)
GROSS INTERNAL EXAMINATION  Adipose Tissue:	essive ( ) Reduced ( ) Petechial Haemorrhagic  ( ) Cysts  rge ( ) Reduced Colour: ( ) Pale ( ) Mottled  ture:  ( ) Multiple ( ) Tumour  forrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid)  Enlarged ( ) Reduced ( ) Raspberry surface  Cyst (fluid) ( ) Colour
GROSS INTERNAL EXAMINATION  Adipose Tissue:	essive ( ) Reduced ( ) Petechial Haemorrhagis ( ) Cysts  erge ( ) Reduced Colour: ( ) Pale ( ) Mottled ture: ( ) Multiple ( ) Tumour eorrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid)  Enlarged ( ) Reduced ( ) Raspberry surface Cyst (fluid) ( ) Colour  ded ( fluid) ( ) Distended (mucoid) rhagic ( ) Cysts(parasite) ( ) Tumour

In the event that a significant number of specimen at any site have abnormalities,

contractor is asked to immediately notify the Study Office.

Phone: 427-1742 or fab to 422-3055

N.B.

### NORTHERN RIVER BASINS STUDY EIAMINATION SEETS

GROSS PATHOLOGY

DATE: 31/10/92	
SAMPLE NO.: FI	
SPECIES: Line CAPTURE METHOD: Set Line	
CAPTURE TIME: 1540 EXAMINATION TIME: 1700	
GROSS EXTERNAL EXAMINATION	
Skin: ( ) Normal ( ) Excessive mucus (*) Abnormal Colour Yellow ( )  ( ) Lesions ( ) Single ( ) Multiple ( ) Closed  ( ) Open ( ) Haemorrhagic ( ) Necrotic ( ) Ulcer  ( ) Blister ( ) Tumour ( ) Lost Scales ( ) Abrasions  Location: A Leteral line ( midway )	
Wet mount/smear:	
Eyes: ( / ) Normal ( ) Exophthalmia ( ) Cataract ( ) Haemorrhagic ( ) Opaque cornea ( ) Lens lost ( ) Parasites ( ) Bilateral	
Fins: ( \( \section \) Normal ( ) Frayed ( ) Deformed ( ) Haemorrhagic	
Wet mount/smear:	
Gills: ( X) Normal ( ) Pale ( ) Mottled ( ) Haemorrhagic ( ) Necrotic ( ) Excessive mucus ( ) Hyperplasia ( ) Cysts ( ) Large Parasites ( ) Fungus Visible	
Wet amount/smear:	
GROSS INTERNAL EXAMINATION	
Adipose Tissue:  ( ) Normal ( ) Excessive ( ) Reduced ( ) Petechial Haemorr.  ( ) Colour ( ) Cysts	nagic
Liver: ( ) Normal ( ) Enlarge ( ) Reduced Colour: ( ) Pale ( ) More Colour: ( ) Pale ( ) More Colour: ( ) Pale ( ) Multiple ( ) Tumour	ttled
( ) Necrotic ( ) Haemorrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid)	
Spleen:  ( ) Normal ( ) Enlarged ( ) Reduced ( ) Raspberry surf: ( ) Cyst(parasite) ( ) Cyst (fluid) ( ) Colour	ace
Stained smear:	
Intestines:	
( ) Normal ( ) Distended (fluid) ( ) Distended (mucoid) ( ) Flaccid ( ) Haemorrhagic ( ) Cysts(parasite) ( ) Tumous	<b>.</b>
Kidney, Postsrior:  ( ) Normal ( ) Enlarge ( ) Lesions ( ) Single ( ) Multiple ( ) Gritty, white ( ) Cyst (parasite) ( ) Cyst (fluid)	)
( ) Tumour	

In the event that a significant number of specimen at any site have abnormalities, to N.B. contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

DATE: 3/10/92

SAMPLE NO.: 72	LOCATION: FI
SPECIES: Ling	CAPTURE METHOD: Set Line
CAPTURE TIME: 1540	EXAMINATION TIME:
GROSS EXTERNAL EXAMINATION	
Skin: ( ) Normal ( ) ( ) Lesions ( ) ( ) Open ( ) ( ) Blister ( )	Excessive mucus  Single  ( ) Multiple ( ) Closed  Haemorrhagic ( ) Necrotic ( ) Ulcer  Tumour ( ) Lost Scales ( ) Abrasions
Wet mount/smear:	
	( ) Exophthalmia ( ) Cataract ( ) Haemorrhagic ( ) Lens lost ( ) Parasites ( ) Bilateral
Fins: (X) Normal ( ) Eroded	( ) Frayed ( ) Haemorrhagic
Wet mount/smear:  Gills: ( \( \) Normal	( ) Pale ( ) Mottled ( ) Haemorrhagic ( ) Excessive mucus ( ) Hyperplasia ( ) Gas emboli ( ) Cysts ( ) Fungus Visible
GROSS INTERNAL EXAMINATION	Turnering ( ) Pointed ( ) Pornering (
	Excessive ( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
( ) Other	Enlarge ( ) Reduced Colour: ( ) Pale ( ) Mottled Texture: Ingle ( ) Multiple ( ) Tumour Haemorrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen:	( ) Enlarged ( ) Reduced ( ) Raspberry surface ( ) Cyst (fluid) ( ) Colour
Stained smear:	
Intestines:     ( ) Normal ( ) Di     ( ) Flaccid ( ) Ha	stended (fluid) ( ) Distended (mucoid) emorrhagic ( ) Cysts(parasite) ( ) Tumour
<pre>Kidney, Posterior:</pre>	plarge ( ) Lesions ( ) Single ( ) Cyst (parasite) ( ) Cyst (fluid)
Stained smear:	
OTHER:	
N.B. In the event that a sig contractor is asked to Phone: 427-1742 or fab	mificant number of specimen at any site have abnormalities, immediately notify the Study Office.

	GROSS PATHOLOGY	
	DATE: 3//10/92	2
SAMPLE NO.: 73	LOCATION:	<i>J-1</i>
SAMPLE NO.: 73  SPECIES: Line	CAPTURE METHOD: Se	+ Line
CAPTURE TIME: 1540	_ EXAMINATION TIME: _	17,5
GROSS EXTERNAL EXAMINATION		
Skin: (() Normal () () () () Lesions () () () Open () () Slister ()	Haemorrhagic ( ) Necrotic	Colour ( ) Closed ( ) Ulcer .es ( ) Abrasions
Location:		
Wet mount/smear:		
	( ) Exophthalmia ( ) Cataract ( ) Lens lost ( ) Parasites	
Fins: (\(\forma\) Normal ( ) Eroded	( ) Frayed ( ) Deformed	( ) Haemorrhagic
Wet mount/smear:		
( ) Telangiectasia	( ) Pale ( ) Mottled ( ) Excessive mucus ( ) Gas emboli ( ) Cysts ( ) Fungus Vi	
Wet amount/smear:		
GROSS INTERNAL EXAMINATION		
Adipose Tissue: ( ) Normal ( ) ( ) Colour	Excessive ( ) Reduced ( ) Cysts	) Perechial Haemorrhagic
( ) Other( ) Lesions: ( ) Si	Enlarge ( ) Reduced Colou: Texture: Ingle ( ) Multiple ( ) Tumour Haemorrhagic ( ) Cyst (parasite)	
<pre>Spleen:</pre>	( ) Enlarged ( ) Reduced ( ) Cyst (fluid) ( ) Colour	( ) Raspberry surface
Stained smear:		
Intestines:     ( ) Normal ( ) Di     ( ) Flaccid ( ) Ha	stended (fluid) ( ) Distended (emorrhagic ( ) Cysts(para	(mucoid) asite) ( ) Tumour
<pre>Kidney, Postsrior:     ( ) Normal ( ) En     ( ) Multiple ( ) Gr     ( ) Tumour</pre>	nlarge ( ) Lesions Fitty, white ( ) Cyst (parasite)	( ) Single () Cyst (fluid)

N.B. In the event that a significant number of specimen at any site have abnormalities, the contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

Stained smear:

OTHER:

	DATE: 31/10/92
SAMPLE NO.: 74	LOCATION: FI
SPECIES: Ling	CAPTURE METHOD: Set 4:00
CAPTURE TIME: 15'10	EXAMINATION TIME: 1720
GROSS EXTERNAL EXAMINATION	
Skin: ( ) Normal ( ) Excessive must ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagic ( ) Blister ( X ) Tumour Location: Anterior area of	( ) Multiple ( ) Closed ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
Wet mount/smear:	
Eyes: ( / ) Normal ( ) Exophthat ( ) Opaque cornea ( ) Lens los	almia ( ) Cataract ( ) Haemorrhagic st ( ) Parasites ( ) Bilateral
Fins: (\(\chi\) Normal ( ) Frayed	( ) Deformed
Wet mount/smear:	
Gills: ( ) Normal ( ) Pale ( ) Necrotic ( ) Excessiv ( ) Telangiectasia ( ) Gas embo	( ) Mottled ( ) Haemorrhagic re mucus ( ) Hyperplasia pli ( ) Cysts ( ) Fungus Visible
Wet amount/smear:	
GROSS INTERNAL EXAMINATION	
Adipose Tissue:	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
( ) Other Texture: ( ) Lesions: ( ) Single ( ) Mu	( ) Reduced Colour: ( ) Pale ( ) Mottled ltiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen:     ( ) Normal ( ) Enlarged     ( ) Cyst(parasite) ( ) Cyst (fl	( ) Reduced ( ) Raspberry surface uid) ( ) Colour
Stained smear:	
<pre>Intestines:     ( ) Normal</pre>	id) ( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour
<pre>Ridney, Posterior:     ( ) Normal</pre>	( ) Lesions ( ) Single ( ) Cyst (parasite) ( ) Cyst (fluid)
Stained smear:	
OTHER:	
N.B. In the event that a significant number	er of specimen at any site have abnormalities, t

contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

	5.00	DATE: 31/10/92
SAMPLE NO	.:75	LOCATION: FI
SPECIES:	.:	CAPTURE METHOD: Set 4:00
	DE: 1540	EXAMINATION TIME: 1725
GROSS EXTE	ERNAL EXAMINATION	
(	) Lesions ( ) Single ) Open ( ) Haemorrhagi ) Blister ( ) Tumour	(\forall ) Abnormal Colour  ( ) Multiple ( ) Closed  ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
Loc	eation: /allow spat	s or belly
Wet	mount/smear:	
Eyes: (K	) Normal ( ) Exopht ) Opaque cornea ( ) Lens l	halmia ( ) Cataract ( ) Haemorrhagic ost ( ) Parasites ( ) Bilateral
Fins: (X	) Normal ( ) Frayed ) Eroded	( ) Haemorrhagic
	mount/smear:	
Gills: (\( \)	) Normal ( ) Pale ) Necrotic ( ) Excess ) Telangiectasia ( ) Gas em ) Large Parasites	( ) Mottled ( ) Haemorrhagic ive mucus ( ) Hyperplasia boli ( ) Cysts ( ) Fungus Visible
GROSS INTE	amount/smear:  RNAL EXAMINATION  ssue: ) Normal ( ) Excessive ) Colour	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
(	) Other Texture: ) Lesions: ( ) Single ( ) }	( ) Reduced Colour: ( ) Pale ( ) Mottled Multiple ( ) Tumour c ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen: ( (	) Normal ( ) Enlarge ) Cyst(parasite) ( ) Cyst (	ed ( ) Reduced ( ) Raspberry surface fluid) ( ) Colour
Sta	ined smear:	
Intestines ( (	) Normal ( ) Distended ( fi ) Flaccid ( ) Haemorrhagic	luid) ( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour
	sterior: ) Normal ( ) Enlarge ) Multiple ( ) Gritty, white ) Tumour	( ) Lesions ( ) Single ( ) Cyst (parasite) ( ) Cyst (fluid)
Sta	ined smear:	
OTHER:		

N.B. In the event that a significant number of specimen at any site have abnormalities, the contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

		DATE: 3//10/92
SAMPLE	: NO.:76	LOCATION: FI
SPECIE	: NO.: 76	CAPTURE METHOD: Set Line
		EXAMINATION TIME: 1730
GROSS	EXTERNAL EXAMINATION	
Skin:	( X) Normal ( ) Excessive must ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagic ( ) Blister ( ) Tumour	Cus ( ) Abnormal Colour ( ) Multiple ( ) Closed ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
	Location:	
	Wet mount/smear:	
Eyes:	( X) Normal ( ) Exophtha ( ) Opaque cornea ( ) Lens los	almia ( ) Cataract ( ) Haemorrhagic st ( ) Parasites ( ) Bilateral
Fins:	( X ) Normal ( ) Frayed	( ) Haemorrhagic
	Wet mount/smear:	
Gills:	(X) Normal ( ) Pale ( ) Necrotic ( ) Excessiv ( ) Telangiectasia ( ) Gas embo ( ) Large Parasites	( ) Mottled ( ) Haemorrhagic e mucus ( ) Hyperplasia li ( ) Cysts ( ) Fungus Visible
	Wet amount/smear:	
GROSS I	INTERNAL ELAMINATION	
-	Tissue: ( ) Normal ( ) Excessive ( ) Colour	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
	( ) Other Texture:	( ) Reduced Colour: ( ) Pale ( ) Mottled ltiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen:		
	( ) Normal ( ) Enlarged ( ) Cyst(parasite) ( ) Cyst (flat	( ) Reduced ( ) Raspberry surface wid) ( ) Colour
	( ) Normal ( ) Enlarged ( ) Cyst(parasite) ( ) Cyst (fluctuation) Stained smear:	
Intesti	Stained smear:  nes: ( ) Normal ( ) Distended ( flu	
Intesti	<pre>nes: ( ) Normal ( ) Distended ( flu: ( ) Flaccid ( ) Haemorrhagic Postsrior:</pre>	id) ( ) Distended (mucoid)
Intesti Ridney,	Stained smear:  nes: ( ) Normal ( ) Distended ( flu: ( ) Flaccid ( ) Haemorrhagic  Postsrior: ( ) Normal ( ) Enlarge ( ) Multiple ( ) Gritty, white	id) ( ) Distended (mucoid)
Intesti Ridney,	<pre>nes:    ( ) Normal</pre>	id) ( ) Distended (mucoid)

N.B. In the event that a significant number of specimen at any site have abnormalities, tontractor is asked to immediately notify the Study Office.

Phone: 427-1742 or fab to 422-3055

	DATE: 31/10/92
SAMPLE NO.:	LOCATION: FI
SPECIES: LINS	CAPTURE METHOD: Set Live
CAPTURE TIME: 1540	EXAMINATION TIME: 1736
GROSS EXTERNAL EXAMINATION	
Skin: ( ) Normal ( ) Excessive mu ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagic ( ) Blister ( ) Tumour  Location:	cus ( Abnormal Colour ( ) Multiple ( ) Closed ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
Wet mount/smear:	
Eyes: ( ) Normal ( ) Exophthat ( ) Opaque cornea ( ) Lens los	almia ( ) Cataract ( ) Haemorrhagic st ( ) Parasites ( ) Bilateral
Fins: ( \ ) Normal ( ) Frayed_	( ) Haemorrhagic
Wet mount/smear:	
Gills: ( \( \) Normal ( ) Pale ( ) Excessive ( ) Telangiectasia ( ) Gas embed ( ) Large Parasites	( ) Mottled ( ) Haemorrhagic ve mucus ( ) Hyperplasia oli ( ) Cysts ( ) Fungus Visible
Wet amount/smear:	
GROSS INTERNAL EXAMINATION	
Adipose Tissue:  ( ) Normal ( ) Excessive ( ) Colour	( ) Reduced ( ) Petechial Haemorrhagi
( ) Other Texture:	( ) Reduced Colour: ( ) Pale ( ) Mottle altiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen:	
( ) Normal ( ) Enlarged ( ) Cyst(parasite) ( ) Cyst (fl	l ( ) Reduced ( ) Raspberry surface .uid) ( ) Colour
Stained smear:	
Intestines:	
( ) Normal ( ) Distended ( flu ( ) Flaccid ( ) Haemorrhagic	aid) ( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour
Kidney, Posterior:  ( ) Normal ( ) Enlarge ( ) Multiple ( ) Gritty, white ( ) Tumour	( ) Lesions ( ) Single ( ) Cyst (parasite) ( ) Cyst (fluid)
Stained smear:	
OTHER:	

N.B. In the event that a significant number of specimen at any site have abnormalities,

contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

GROSS	PATH	OLOGY
בם	ATE:	31/10/92

SAMPLE NO.: 78	LOCATION:
SPECIES:	CAPTURE METHOD: Set Line
CAPTURE TIME: /510	
GROSS EXTERNAL EXAMINAT	CION
Skin: (X) Normal ( ) Lesions ( ) Open ( ) Blister	( ) Excessive mucus ( ) Abnormal Colour ( ) Single ( ) Multiple ( ) Closec ( ) Haemorrhagic ( ) Necrotic ( ) Ulcer ( ) Tumour ( ) Lost Scales ( ) Abrasions
Wet mount/smear:	
	( ) Exophthalmia ( ) Cataract ( ) Haemorrhagic ea ( ) Lens lost ( ) Parasites ( ) Bilateral
Fins: (X) Normal ( ) Eroded	( ) Frayed ( ) Haemorrhagic
Wet mount/smear:	
Gills: ( > ) Normal ( ) Necrotic ( ) Telangiecta ( ) Large Paras	( ) Pale ( ) Mottled ( ) Haemorrhagic ( ) Excessive mucus ( ) Hyperplasia sia ( ) Gas emboli ( ) Cysts ites ( ) Fungus Visible
Wet amount/smear	:
GROSS INTERNAL EXAMINAT	ION
Adipose Tissue: ( ) Normal ( ) Colour	( ) Excessive ( ) Reduced ( ) Petechial Haemorrhagic
Liver: ( ) Normal ( ) Other ( ) Lesions: (	( ) Enlarge ( ) Reduced Colour: ( ) Pale ( ) Mottled Texture:  ) Single ( ) Multiple ( ) Tumour ( ) Haemorrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen:	( ) Enlarged ( ) Reduced ( ) Raspberry surface te) ( ) Cyst (fluid) ( ) Colour
Stained smear: _	
Intestines:	Distance ( fluid) ( ) Distance (museid)
( ) Normal ( ) Flaccid (	) Distended (fluid) ( ) Distended (mucoid) ) Haemorrhagic ( ) Cysts(parasite) ( ) Tumour
Kidney, Posterior: ( ) Normal ( ( ) Multiple ( ( ) Tumour	) Enlarge ( ) Lesions ( ) Single ) Gritty, white ( ) Cyst (parasite) ( ) Cyst (fluid)
Stained smear: _	
OTHER:	
contractor is as	a significant number of specimen at any site have abnormalities, ked to immediately notify the Study Office. or fab to 422-3055

DATE: 3//10/92

SAMPLE NO.: 79	LOCATION: F2
SPECIES: Ling	CAPTURE METHOD: Set Line
CAPTURE TIME: /500	EXAMINATION TIME:
GROSS EXTERNAL EXAMINATION	
Skin: ( X) Normal ( ) ( ) Lesions ( ) ( ) Open ( ) ( ) Blister ( )	Excessive mucus ( ) Abnormal Colour  Single ( ) Multiple ( ) Closed  Haemorrhagic ( ) Necrotic ( ) Ulcer  Tumour ( ) Lost Scales ( ) Abrasions
Location:	
Wet mount/smear:	
	( ) Exophthalmia ( ) Cataract ( ) Haemorrhagic ( ) Lens lost ( ) Parasites ( ) Bilateral
Fins: (X ) Normal ( ) Eroded	( ) Frayed ( ) Deformed ( ) Haemorrhagic
Wet mount/smear:	
( ) Necrotic ( ) Telangiectasia	( ) Pale ( ) Mottled ( ) Haemorrhagic ( ) Excessive mucus ( ) Hyperplasia ( ) Gas emboli ( ) Cysts ( ) Fungus Visible
Wet amount/smear:	
GROSS INTERNAL EXAMINATION	
Adipose Tissue:	Excessive ( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
( ) Other	Enlarge ( ) Reduced Colour: ( ) Pale ( ) Mottled Texture:  ngle ( ) Multiple ( ) Tumour Haemorrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen: ( ) Normal	
( ) Cyst(parasite)	( ) Enlarged ( ) Reduced ( ) Raspberry surface ( ) Cyst (fluid) ( ) Colour
Stained smear:	
Stained smear:	
Stained smear:  Intestines:  ( ) Normal ( ) Discoid ( ) Had	
Stained smear:  Intestines:     ( ) Normal ( ) Discoid ( ) Had ( ) Had ( ) End ( ) Multiple ( ) Gride ( )	stended ( fluid) ( ) Distended (mucoid) emorrhagic ( ) Cysts(parasite) ( ) Tumour  large ( ) Lesions ( ) Single itty, white ( ) Cyst (parasite) ( ) Cyst (fluid)
Stained smear:  Intestines:     ( ) Normal ( ) Discoid ( ) Had ( ) Had ( ) Enders ( ) Multiple ( ) Graduation ( ) Tumour	stended ( fluid) ( ) Distended (mucoid) emorrhagic ( ) Cysts(parasite) ( ) Tumour  large ( ) Lesions ( ) Single itty, white ( ) Cyst (parasite) ( ) Cyst (fluid)

N.B. In the event that a significant number of specimen at any site have abnormalities, in contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

		00			DATE: _	3/	1,0192		
SAMPLE	NO.:	80			LOCATIO	N: <u></u>	3		
SPECIES		Lina			CAPTURE	METHOD:	Set	Lino	_
APTURE	TIME: _	1530			EZANINA	TION TIM	E:	1800	_
ROSS E	SOURRNAL E	TAMINAT:	ON						
Skin:	(X) Norm ( ) Lesi ( ) Open ( ) 3lis	al ons	( ) E: ( ) S: ( ) Ha ( ) Tr	xcessive m ingle aemorrhagi umour	ucus ( ( c (	) Abno ) Mult ) Necro	rmal Co iple otic Scales	( ) Closec ( ) Ulcer ( ) Abrasion	s
:	Location:								-
1	Wet mount	/smear:							_
								) Haemorrhagi ) Bilateral	
ins:	(X) Norm ( ) Erod	al ed	(	) Frayed_	(	) Defor	med	) Haemorrhagi	c
	Wet mount	•				<del></del>			B00
ills:	(X) Norm (') Necr (') Tela (') Larg	al otic ngiectas e Parasi	ia ( tes	) Pale ) Excessi ) Gas emi	tve mucus	) Mottl ) Cysts ) Fungu	led ( ( s us Visi)	) Haemorrhagi ) Hyperplasia	c
1	Wet amoun	c/smear:							
ROSS II	NTERNAL E	xaminati	on						
_	Tissue: ( ) Norm ( ) Colo	al	( ) Ex	cessive	( ) Red ( ) Cys	uced TS	( )	Petechial Haemo	orrhag
	/ in Othe	<del>-</del>	7	'exture:				( ) Pale ( ) ) Cyst (Fluid)	
pleen:	( ) Cyst	al (parasit	e) (	) Enlarge ) Cyst (f	ed ( Eluid) (	) Reduc ) Colou	ed (	) Raspberry su	irface
	Stained s	mear:							
ntesti	( ) Norm	al ( cid (	) Dist ) Haem	ended ( fl	.uid) (	) Diste	ended (m	nucoid) ite) ( ) Tun	nour
_	Posterio ( ) Norm ( ) Mult ( ) Tumo	al ( iple (	) Enla ) Grit	irge ty, white	( ) Cys	ions t (paras	iite)	( ) Single ( ) Cyat (flu	ıid)
	Stained s	mear:							
THER:									
1.8.	In the eve	ent that	a signi	ficant num	ber of spe	cimen at	any si	te have abnorma.	lities

Phone: 427-1742 or fab to 422-3055

	01	DATE: 3//0/	92
SAMPLE	в но.:	LOCATION:	FI
SPECIE	ES: URPK	CAPTURE METHOD: _	Set Line
	RE TIME:	EXAMINATION TIME:	1805
GROSS	EXTERNAL EXAMINATION		
Skin:	( ) Normal ( ) Excessive mu ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagic ( ) Blister ( ) Tumour	( ) Abnorm ( ) Multip ( ) Necrot ( ) Lost So	al Colour le ( ) Closec ic ( ) Ulcer cales ( ) Abrasions
	Location:		
	Wet mount/smear:	·····	
	(* ) Normal ( ) Exophth ( ) Opaque cornea ( ) Lens lo		
Fins:	( \( \) Normal ( ) Frayed_ ( ) Eroded	( ) Deforme	( ) Haemorrhagic
	Wet mount/smear:		
Gills:	( ) Normal ( ) Pale ( ) Necrotic ( ) Excession ( ) Telangiectasia ( ) Gas embo ( ) Large Parasites	ve mucus oli ( ) Cysts	( ) Hyperplasia
	Wet amount/smear:		
GROSS I	INTERNAL EXAMINATION		
Adipose	Tissue:		
aczpool	( ) Normal ( ) Excessive ( ) Colour	( ) Reduced ( ) Cysts	( ) Petechial Haemorrhagic
	( ) Normal ( ) Enlarge ( ) Other Texture: ( ) Lesions: ( ) Single ( ) Mu ( ) Necrotic ( ) Haemorrhagic	ultipie ( ) Tumou	r
Spleen:	:		
	( ) Normal ( ) Enlarged ( ) Cyst(parasite) ( ) Cyst (fl	i ( ) Reduced Luid) ( ) Colour	( ) Raspberry surface
	Stained smear:		
Intesti	ines:		
	( ) Normal ( ) Distended ( flu ( ) Flaccid ( ) Haemorrhagic	iid) ( ) Distend ( ) Cysts(p	ed (mucoid) arasite) ( ) Tumour
Kidney,	, Posterior: ( ) Normal ( ) Enlarge ( ) Multiple ( ) Gritty, white ( ) Tumour	( ) Lesions ( ) Cyst (parasit	( ) Single e) ( ) Cyst (fluid)
	Stained smear:		
OTHER:			

N.B. In the event that a significant number of specimen at any site have abnormalities, Encontractor is asked to immediately notify the Study Office.

Phone: 427-1742 or fab to 422-3055

## NORTHERN RIVER BASINS STUDY

	EIANINATION SHEETS GROSS PATEOLOGY	
	DATE: 1/11/92	
SAMPLE NO.: 82	LOCATION: F2	
SPECIES: Ling	CAPTURE METHOD: Set Line	
CAPTURE TIME: 101/0	EXAMINATION TIME: ///O	
GROSS EXTERNAL EXAMINATION		
Skin: ( ) Normal ( ) Lesions ( ) Open ( X ( ) Blister (	) Excessive mucus ( X) Abnormal Colour ) Single ( ) Multiple ( ) Closec () Haemorrhagic ( ) Necrotic ( ) Ulcer ) Tumour ( ) Lost Scales ( ) Abrasions	
Location: Numer	rous rod spots or both sides aidway Blue ;	1.1
Wet mount/smear:		
Eyes: ( x ) Normal ( ) Opaque cornea	( ) Exophthalmia ( ) Cataract ( ) Haemorrhagic ( ) Lens lost ( ) Parasites ( ) Bilateral	
Fins: (X) Normal ( ) Eroded	( ) Frayed ( ) Haemorrhagic	
Wet mount/smear:		
Gills: ( ) Normal ( ) Necrotic ( ) Telangiectasia ( ) Large Parasites	( ) Pale ( ) Mottled ( ) Haemorrhagic ( ) Excessive mucus ( ) Hyperplasia ( ) Gas emboli ( ) Cysts ( ) Fungus Visible	
Wet amount/smear:		
GROSS INTERNAL EXAMINATION		
Adipose Tissue:	) Excessive ( ) Reduced ( ) Petechial Haemorr ( ) Cysts	:hag:
( ) Other( ) Lesions: ( )	) Enlarge ( ) Reduced Colour: ( ) Pale ( ) More Texture:  Single ( ) Multiple ( ) Tumour ) Haemorrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid)	ETI:
Splean:	( ) Enlarged ( ) Reduced ( ) Raspberry surf. ( ) Cyst (fluid) ( ) Colour	ace
Stained smear:		

OTHER: In the event that a significant number of specimen at any site have abnormalities, N.B. contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

( ) Lesions

( ) Cysts(parasite) ( ) Tumour

( ) Single

( ) Cyst (fluid)

( ) Normal ( ) Distended (fluid) ( ) Distended (mucoid) ( ) Flaccid ( ) Haemorrhagic ( ) Cysts(parasite)

) Multiple ( ) Gritty, white ( ) Cyst (parasite)

( ) Enlarge

( ) Normal

( ) Normal

Stained smear: \_

Kidney, Posterior:

GRO	SS PATHOLOGY
_	DATE: 2 1/11/92
SAMPLE NO.: 83	LOCATION:
SPECIES: Ling	CAPTURE METHOD: Set Line
CAPTURE TIME: 1015	EXAMINATION TIME:
GROSS EXTERNAL EXAMINATION	
Skin: (<) Normal ( ) Excessive mu ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagic ( ) Blister ( ) Tumour	( ) Abnormal Colour ( ) Multiple ( ) Closed ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
Location:	
Wet mount/smear:	
Eyes: (X) Normal ( ) Exophthat ( ) Lens los	almia ( ) Cataract ( ) Haemorrhagic st ( ) Parasites ( ) Bilateral
Pins: (*\) Normal ( ) Frayed	( ) Haemorrhagic
Wet mount/smear:	
Gills: (%) Normal ( ) Pale ( ) Necrotic ( ) Excessive ( ) Telangiectasia ( ) Gas embode ( ) Large Parasites	oli ( ) Cysts ( ) Fungus Visible
Wet amount/smear:	
GROSS INTERNAL EXAMINATION	
Adipose Tissue:     ( ) Normal ( ) Excessive     ( ) Colour	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
( ) Other Texture: ( ) Lesions: ( ) Single ( ) Mu	( ) Reduced Colour: ( ) Pale ( ) Mottled  altiple ( ) Tumour   ( ) Cyst (parasite) ( ) Cyst (Fluid)
<pre>Spleen:     ( ) Normal</pre>	d ( ) Reduced ( ) Raspberry surface luid) ( ) Colour
Stained smear:	
Intestines:     ( ) Normal ( ) Distended ( flu     ( ) Flaccid ( ) Haemorrhagic	uid) ( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour
( ) Tumour	( ) Lesions ( ) Single ( ) Cyst (parasite) ( ) Cyst (fluid)
Stained smear:	

N.B. In the event that a significant number of specimen at any site have abnormalities, the contractor is asked to immediately notify the Study Office.

Phone: 427-1742 or fab to 422-3055

	GROSS PATHOLOGY	
	DATE: 3/11/92	
SAMPLE NO. : 84	LOCATION: G1	
SAMPLE NO.: 84  SPECIES: Ling	CAPTURE METHOD:	Set Line
CAPTURE TIME: 1215	EXAMINATION TIME:	
GROSS EXTERNAL EXAMINATION		
Skin: (X) Normal () () Lesions () () Open () () Blister ()	Excessive mucus ( ) Abnormal Single ( ) Multiple Haemorrhagic ( ) Necrotic Tumour ( ) Lost Scal	Colour ( ) Closed ( ) Ulcer Les ( ) Abrasions
Location:		
Wet mount/smear:		
Eyes: (X) Normal ( ) Opaque cornea	( ) Exophthalmia ( ) Cataract ( ) Lens lost ( ) Parasites	( ) Haemorrhagic ( ) Bilateral
Fins: (×) Normal ( ) Eroded	( ) Frayed ( ) Deformed	( ) Haemorrhagic
Wer mount/smear:		
Gills: (X) Normal ( ) Necrotic ( ) Telangiectasia ( ) Large Parasites  Wet amount/smear:	( ) Pale ( ) Mottled ( ) Excessive mucus ( ) Gas emboli ( ) Cysts ( ) Fungus Vi	( ) Haemorrhagic ( ) Hyperplasia sible
GROSS INTERNAL EXAMINATION		
Adipose Tissue: ( ) Normal ( ) (	Excessive ( ) Reduced (	) Petechial Haemorrhagio
( ) Other( ) Signature ( ) Signature (	Enlarge ( ) Reduced Colou Texture: ngle ( ) Multiple ( ) Tumour Haemorrhagic ( ) Cyst (parasite)	
<pre>Splean:</pre>	( ) Enlarged ( ) Reduced ( ) Cyst (fluid) ( ) Colour	( ) Raspberry surface
Stained smear:		
Intestines:     ( ) Normal ( ) Di     ( ) Flaccid ( ) Ha	stended (fluid) ( ) Distended emorrhagic ( ) Cysts(par	(mucoid) asite) ( ) Tumour
<pre>Kidney, Posterior:     ( ) Normal ( ) En     ( ) Multiple ( ) Gr     ( ) Tumour</pre>	large ( ) Lesions itty, white ( ) Cyst (parasite)	( ) Single ( ) Cyst (fluid)
Stained smear:		

N.B. In the event that a significant number of specimen at any site have abnormalities, to contractor is asked to immediately notify the Study Office.

Phone: 427-1742 or fab to 422-3055

OTHER:

	DATE: 3/11/92	
Sample	PLE NO.: 85 LOCATION: 6/	
	CAPTURE METHOD: Set	Lire
CAPTURI	TORE TIME: 1215 EXAMINATION TIME: 1	439
GROSS 1	S EXTERNAL EXAMINATION	
	( ) Normal ( ) Excessive mucus ( Abnormal Co ( ) Lesions ( ) Single ( ) Multiple ( ) Open ( ) Haemorrhagic ( ) Necrotic ( ) Blister ( ) Tumour ( ) Lost Scales	( ) Closed ( ) Ulcer ( ) Abrasions
	Location: Block spots on body	
	Wet mount/smear:	
yes:	( ) Opaque cornea ( ) Lens lost ( ) Parasites (	
ins:	: (X) Normal () Frayed () Deformed	) Haemorrhagic
	Wet mount/smear:	
ills:	s: (X) Normal ( ) Pale ( ) Mottled ( ( ) Necrotic ( ) Excessive mucus ( ( ) Telangiectasia ( ) Gas emboli ( ) Cysts ( ) Large Parasites ( ) Fungus Visil	
	Wet amount/smear:	
ROSS I	S INTERNAL EXAMINATION	
dipose	ose Tissue:	
	( ) Normal ( ) Excessive ( ) Reduced ( ) ( ) Colour ( ) Cysts	Petechial Haemorrhagic
	r: ( ) Normal ( ) Enlarge ( ) Reduced Colour:   ( ) Other Texture:   ( ) Lesions: ( ) Single ( ) Multiple ( ) Tumour   ( ) Necrotic ( ) Haemorrhagic ( ) Cyst (parasite) (	
pleen:	en:	) Jaganian en
	( ) Normal ( ) Enlarged ( ) Reduced ( ) Cyst(parasite) ( ) Cyst (fluid) ( ) Colour	
	Stained smear:	
ntesti	stines:	no mana i ni N
	( ) Normal ( ) Distended (fluid) ( ) Distended (m ( ) Flaccid ( ) Haemorrhagic ( ) Cysts(parasi	ite) ( ) Tumour
Cidney,	ey, Postarior:  ( ) Normal ( ) Enlarge ( ) Lesions ( ) Multiple ( ) Gritty, white ( ) Cyst (parasite) ( ) Tumour	( ) Single ( ) Cyst (fluid)
	Stained smear:	nan-
THER:	R:	
N.B.	In the event that a significant number of specimen at any si contractor is asked to immediately notify the Study Office Phone: 427-1742 or fab to 422-3055	te have abnormalities, =

N.B.

		GROSS PATHOLOGY
		DATE: 3/11/92
SAMPLE	E NO.:	LOCATION: GI
SPECIE	E NO.:	CAPTURE METHOD: _ Set Line
	RE TIME: 1200	EXAMINATION TIME: 1444
GROSS	EXTERNAL EXAMINATION	4
Skin:	(X) Normal ( ) Excessive ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhag ( ) Blister ( ) Tumour	mucus ( ) Abnormal Colour ( ) Multiple ( ) Closed gic ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
	Location:	
	Wet mount/smear:	
		thalmia ( ) Cataract ( ) Haemorrhagic lost ( ) Parasites ( ) Bilateral
Fins:	(X) Normal () Fraye ( ) Eroded	ed( ) Haemorrhagic
	Wet mount/smear:	
Gills:	(X) Normal ( ) Pale ( ) Necrotic ( ) Exces ( ) Telangiectasia ( ) Gas except ( ) Large Parasites ( ) Wet amount/smear:	
GROSS :	INTERNAL EXAMINATION	
Adipos	e Tissue: ( ) Normal ( ) Excessive ( ) Colour	( ) Reduced ( ) Petechial Haemorrhagi
Liver:	( ) Other Texture: ( ) Lesions: ( ) Single ( )	( * ) Reduced Colour: ( ) Pale ( ) Mottled  Multiple ( ) Tumour ic ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen	( ) Normal ( ) Enlarge ( ) Cyst (parasite) ( ) Cyst	ged ( ) Reduced ( ) Raspberry surface (fluid) ( ) Colour
	Stained smear:	
Intesti	<pre>ines:    ( ) Normal   ( ) Distended ( :    ( ) Flaccid   ( ) Haemorrhagic</pre>	fluid) ( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour
Kidney,	<pre>, Posterior:   ( ) Normal</pre>	( ) Lesions ( ) Single e ( ) Cyst (parasite) ( ) Cyst (fluid)
	Stained smear:	

N.B. In the event that a significant number of specimen at any site have abnormalities, contractor is asked to immediately notify the Study Office.

Phone: 427-1742 or fab to 422-3055

OTHER:

	DATE: 3/11/92
SAMPLE NO.: 87  SPECIES: Ling	LOCATION: 61
SPECIES: Ling	CAPTURE NETHOD: Set Line
CAPTURE TIME: 1145	EXAMINATION TIME: 1447
GROSS EXTERNAL EXAMINATION	4
Skin: (X) Normal () Excessive mu () Lesions () Single () Open () Haemorrhagic () Blister () Tumour	( ) Abnormal Colour ( ) Multiple ( ) Closed ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
Location:	
Wet mount/smear:	
	almia ( ) Cataract ( ) Haemorrhagic st ( ) Parasites ( ) Bilateral
Fins: (X) Normal ( ) Frayed_ ( ) Eroded	( ) Haemorrhagic
Wet mount/smear:	
( ) Pale ( ) Necrotic ( ) Telangiectasia ( ) Large Parasites	ve mucus ( ) Hyperplasia oli ( ) Cysts
Wet amount/smear:	-
GROSS INTERNAL EXAMINATION	
Adipose Tissue: ( ) Normal ( ) Excessive ( ) Colour	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
( ) Other Texture: ( ) Lesions: ( ) Single ( ) Mu	( - ) Reduced Colour: ( ) Pale ( ) Mottled ultiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen: ( ) Normal ( ) Enlarged ( ) Cyst(parasite) ( ) Cyst (fi	d ( ) Reduced ( ) Raspberry surface luid) ( ) Colour
Stained smear:	
<pre>Intestines:     ( ) Normal</pre>	uid) ( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour
Kidney, Posterior:  ( ) Normal ( ) Enlarge ( ) Multiple ( ) Gritty, white ( ) Tumour	( ) Lesions ( ) Single ( ) Cyst (parasite) ( ) Cyst (fluid)
Stained smear:	

N.B. In the event that a significant number of specimen at any site have abnormalities, the contractor is asked to immediately notify the Study Office.

Phone: 427-1742 or fab to 422-3055

	DATE: 3/11/92
SAMPLE NO.:88	LOCATION: G2
SPECIES: Ling	CAPTURE METHOD: Set Line
CAPTURE TIME: 1315	EXAMINATION TIME: 1450
GROSS EXTERNAL EXAMINATION	
Skin: (X) Normal ( ) Excessive	mucus ( ) Abnormal Colour
( ) Lesions ( ) Single ( ) Open ( ) Haemorrhag ( ) Blister ( ) Tumour	( ) Multiple ( ) Closed ic ( ) Necrotic ( ) Ulcer
Location:	
Wet mount/smear:	
	thalmia ( ) Cataract ( ) Haemorrhagic lost ( ) Parasites ( ) Bilateral
Fins: (X) Normal ( ) Frayed ( ) Eroded	d( ) Haemorrhagic
Wet mount/smear:	
Gills: (X) Normal ( ) Pale ( ) Necrotic ( ) Excess ( ) Telangiectasia ( ) Gas en ( ) Large Parasites	. ( ) Mottled ( ) Haemorrhagic sive mucus ( ) Hyperplasia mboli ( ) Cysts ( ) Fungus Visible
Wet amount/smear:	
GROSS INTERNAL EXAMINATION	
Adipose Tissue:  ( ) Normal ( ) Excessive ( ) Colour	( ) Reduced ( ) Petechial Haemorrhagi ( ) Cysts
Liver: ( ) Normal ( ) Enlarge	( - ) Reduced Colour: ( ) Pale ( ) Mottle
( ) Other Texture: _ ( ) Lesions: ( ) Single ( ) ( ) Necrotic ( ) Haemorrhagi	Multiple ( ) Tumour ic ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen: ( ) Normal ( ) Enlarg ( ) Cyst(parasite) ( ) Cyst (	ged ( ) Reduced ( ) Raspberry surface (fluid) ( ) Colour
Stained smear:	
Intestines:     ( ) Normal ( ) Distended ( f	fluid) ( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour
<pre>Kidney, Posterior:     ( ) Normal ( ) Enlarge     ( ) Multiple ( ) Gritty, white     ( ) Tumour</pre>	( ) Lesions ( ) Single ( ) Cyst (parasite) ( ) Cyst (fluid)
Stained smear:	
OTHER:	
N.B. In the event that a significant nu contractor is asked to immediate! Phone: 427-1742 or fab to 422-305	mber of specimen at any site have abnormalities, ly notify the Study Office.

	DATE: 3/11/92
SAMPLE NO.: 89	LOCATION: 42
SPECIES: Ling	CAPTURE METHOD: Set Line
CAPTURE TIME: 1315	EXAMINATION TIME: 1454
GROSS EXTERNAL EXAMINATION	
( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagi ( ) Blister ( ) Tumour	( ) Lost Scales ( ) Aprasions
Location: Discoloured	
Wet mount/smear:	
Eyes: ( ) Normal Suntan ( ) Exopht: ( ) Dens la	
Fins: ( X) Normal ( ) Frayed ( ) Eroded	( ) Haemorrhagic
Wet mount/smear:	
Gills: (X) Normal ( ) Pale ( ) Necrotic ( ) Excess: ( ) Telangiectasia ( ) Gas emit ( ) Large Parasites	. ( ) Mottled ( ) Haemorrhagic ive mucus ( ) Hyperplasia boli ( ) Cysts ( ) Fungus Visible
Wet amount/smear:	
GROSS INTERNAL EXAMINATION	
Adipose Tissue:     ( ) Normal ( ) Excessive     ( ) Colour	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
( ) Other Texture: ( ) Lesions: ( ) Single ( ) &	( · ) Reduced Colour: ( ) Pale ( ) Mottled Multiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen:  ( ) Normal ( ) Enlarge ( ) Cyst(parasite) ( ) Cyst (	ed ( ) Reduced ( ) Raspberry surface fluid) ( ) Colour
Stained smear:	
<pre>Intestines:     ( ) Normal</pre>	luid) ( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour
<pre>Kidney, Posterior:     ( ) Normal ( ) Enlarge     ( ) Multiple ( ) Gritty, white     ( ) Tumour</pre>	( ) Lesions ( ) Single ( ) Cyst (parasite) ( ) Cyst (fluid)
Stained smear:	
OTHER:	
N.B. In the event that a significant num contractor is asked to immediately Phone: 427-1742 or fab to 422-305	

		DATE: 31,1/92
SAMPLE	No.: 90	LOCATION: 62
SPECIE	Y.	CAPTURE METEOD: Set Line
CAPTUR	E TIME: 1245	EXAMINATION TIME: 1/57
	EXTERNAL EXAMINATION	
Skin:	( \( \) Normal ( ) ( ) Lesions ( ) ( ) Open ( ) ( ) Blister ( )	Excessive mucus ( ) Abnormal Colour Single ( ) Multiple ( ) Closec Haemorrhagic ( ) Necrotic ( ) Ulcer Tumour ( ) Lost Scales ( ) Abrasions
	Location:	
	Wet mount/smear:	
Eyes:	( ★) Normal ( ) Opaque cornea	( ) Exophthalmia ( ) Cataract ( ) Haemorrhagic ( ) Lens lost ( ) Parasites ( ) Bilateral
Pins:	( √ ) Normal ( ) Eroded	( ) Frayed ( ) Haemorrhagic
	Wet mount/smear:	
Gills:	(√) Normal () Necrotic () Telanglectasia	( ) Pale ( ) Mottled ( ) Haemorrhagic ( ) Excessive mucus ( ) Hyperplasia ( ) Gas emboli ( ) Cysts ( ) Fungus Visible
	( ) Large Parasites _	( ) Grand Visible
	( ) Large Parasites Wet amount/smear:	
GROSS I	Wet amount/smear:  INTERNAL EXAMINATION  Tissue:  ( ) Normal ( ) I	
GROSS I	Wet amount/smear:  INTERNAL EXAMINATION  Tissue: ( ) Normal ( ) I ( ) Colour  ( ) Normal ( ) I	Excessive ( ) Reduced ( ) Petechial Haemorrhagi
GROSS I Adipose Liver:	Wet amount/smear:  INTERNAL EXAMINATION  Tissue:  ( ) Normal ( ) I  ( ) Colour  ( ) Normal ( ) I  ( ) Other ( ) Lesions: ( ) Sir ( ) Necrotic ( ) I	Excessive ( ) Reduced ( ) Petechial Haemorrhagi ( ) Cysts  Enlarge ( ) Reduced Colour: ( ) Pale ( ) Mottle
GROSS I Adipose Liver: Spleen:	Wet amount/smear:  INTERNAL EXAMINATION  Tissue:  ( ) Normal ( ) I  ( ) Colour  ( ) Normal ( ) I  ( ) Other  ( ) Lesions: ( ) Sir  ( ) Necrotic ( ) I	Excessive ( ) Reduced ( ) Petechial Haemorrhagi
GROSS I Adipose Liver: Spleen:	Wet amount/smear:  INTERNAL EXAMINATION  Tissue:  ( ) Normal ( ) I  ( ) Colour  ( ) Normal ( ) I  ( ) Other  ( ) Lesions: ( ) Sin  ( ) Necrotic ( ) I  ( ) Normal  ( ) Cyst(parasite)  Stained smear:  Ines:  ( ) Normal ( ) Dis	Excessive ( ) Reduced ( ) Petechial Haemorrhagi
GROSS I Adipose Liver: Spleen: Intesti	Wet amount/smear:  INTERNAL EXAMINATION  Tissue: ( ) Normal ( ) I ( ) Colour  ( ) Normal ( ) I ( ) Other ( ) Lesions: ( ) Sin ( ) Necrotic ( ) I ( ) Normal ( ) Cyst(parasite)  Stained smear:  Des: ( ) Normal ( ) Dis ( ) Flaccid ( ) Had	Excessive ( ) Reduced ( ) Petechial Haemorrhagi
GROSS I Adipose Liver: Spleen: Intesti	Wet amount/smear:  INTERNAL EXAMINATION  Tissue: ( ) Normal ( ) I ( ) Colour  ( ) Normal ( ) Sir ( ) Necrotic ( ) I ( ) Normal ( ) Cyst(parasite)  Stained smear: ( ) Normal ( ) Dis ( ) Flaccid ( ) Has  Postsrior: ( ) Normal ( ) End ( ) Multiple ( ) Grove	Excessive ( ) Reduced ( ) Petechial Haemorrhagi

In the event that a significant number of specimen at any site have abnormalities, contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055 M.B.

## NORTHERN RIVER BASINS STUDY

		INATION SHEETS DSS PATHOLOGY
		DATE: 3/11/92
SAMPLE	NO.: 9/	LOCATION: 62
SPECIE	s: Ling	CAPTURE METEOD: / Set Ling
CAPTUR	E TIME: 1245	EXAMINATION TIME: 1500
GROSS	EXTERNAL EXAMINATION	
Skin:	(V) Normal ( ) Excessive mu ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagic ( ) Blister ( ) Tumour	( ) Abnormal Colour ( ) Multiple ( ) Closed ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
	Location:	
	Wet mount/smear:	
Eyes:	( X) Normal ( ) Exophth ( ) Opaque cornea ( ) Lens lo	almia ( ) Cataract ( ) Haemorrhagic st ( ) Parasites ( ) Bilateral
Fins:	(X) Normal ( ) Frayed_	( ) Haemorrhagic
	Wet mount/smear:	
Gills:	( \( \) Normal ( ) Pale ( ) Necrotic ( ) Excessi ( ) Telangiectasia ( ) Gas emb ( ) Large Parasites	( ) Mottled ( ) Haemorrhagic ve mucus ( ) Hyperplasia oli ( ) Cysts ( ) Fungus Visible

#### GROSS INTERNAL EXAMINATION

OTHER:

Wet amount/smear:

Adipose	( )	sue: Normal Colour		) Excessive ( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
	( )	Other Lesions:	( )	<pre>Description</pre>
	( )	Normal Cyst(paras		( ) Enlarged ( ) Reduced ( ) Raspberry surface ( ) Cyst (fluid) ( ) Colour
Intesti	nes: ( ) ( )	Normal Flaccid	( )	Distended (fluid) ( ) Distended (mucoid) Haemorrhagic ( ) Cysts(parasite) ( ) Tumour
Kidney,	( )	terior: Normal Multiple Tumour	( )	<pre>Enlarge ( ) Lesions ( ) Single Gritty, white ( ) Cyst (parasite) ( ) Cyst (fluid)</pre>
	Stai	ned smear:		

In the event that a significant number of specimen at any site have abnormalities, to contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055 N.B.

	DATE: 3/11/92
SAMPLE NO.: 92	LOCATION: G2
SPECIES: Ling	CAPTURE HETHOD: Set Line
CAPTURE TIME: 1245	EXAMINATION TIME: 1510
gross external examination	
Skin: (X) Normal ( ) Excessive ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhag ( ) Blister ( ) Tumour	mucus ( ) Abnormal Colour ( ) Multiple ( ) Closed ic ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
Location:	
Wet mount/smear:	
Eyes: (X) Normal ( ) Exoph	thalmia ( ) Cataract ( ) Haemorrhagic lost ( ) Parasites ( ) Bilateral
Fins: ( ) Normal ( ) Fraye	d( ) Haemorrhagic
Wer mount/smear:	
Gills: (X) Normal ( ) Pale ( ) Excess ( ) Telangiectasia ( ) Gas et ( ) Large Parasites	( ) Mottled ( ) Haemorrhagic sive mucus ( ) Hyperplasia mboli ( ) Cysts ( ) Fungus Visible
Wet amount/smear:	
Wet amount/smear:  GROSS INTERNAL EXAMINATION	
GROSS INTERNAL EXAMINATION Adipose Tissue:	( ) Reduced ( ) Petechial Haemorrhagi
GROSS INTERNAL EXAMINATION  Adipose Tissue:	( ) Cysts  ( · ) Reduced Colour: ( ) Pale ( ) Mottle
GROSS INTERNAL EXAMINATION  Adipose Tissue:	( ) Cysts
GROSS INTERNAL EXAMINATION  Adipose Tissue:	( ) Cysts  ( · ) Reduced Colour: ( ) Pale ( ) Mottle
GROSS INTERNAL EXAMINATION  Adipose Tissue:	( ) Cysts  ( · ) Reduced Colour: ( ) Pale ( ) Mottle  Multiple ( ) Tumour  Lc ( ) Cyst (parasite) ( ) Cyst (Fluid)
GROSS INTERNAL EXAMINATION  Adipose Tissue:	( ) Cysts  ( · ) Reduced Colour: ( ) Pale ( ) Mottle  Multiple ( ) Tumour  Lc ( ) Cyst (parasite) ( ) Cyst (Fluid)
GROSS INTERNAL EXAMINATION  Adipose Tissue:	( ) Cysts  ( · ) Reduced Colour: ( ) Pale ( ) Mottle  Multiple ( ) Tumour  Lc ( ) Cyst (parasite) ( ) Cyst (Fluid)  ged ( ) Reduced ( ) Raspberry surface  (fluid) ( ) Colour
GROSS INTERNAL EXAMINATION  Adipose Tissue:	( ) Cysts  ( · ) Reduced Colour: ( ) Pale ( ) Mottles  Multiple ( ) Tumour  Lc ( ) Cyst (parasite) ( ) Cyst (Fluid)  ged ( ) Reduced ( ) Raspberry surface  (fluid) ( ) Colour  Eluid) ( ) Distended (mucoid)  ( ) Cysts(parasite) ( ) Tumour

N.B. In the event that a significant number of specimen at any site have abnormalities, contractor is asked to immediately notify the Study Office.

Phone: 427-1742 or fab to 422-3055

	DATE: 3/11/92
SAMPLE	NO.: 93 LOCATION: G3
SPECIE	CAPTURE METHOD: _St Line
CAPTUR	RE TIME: 1400. EXAMINATION TIME: 15/2
	EXTERNAL EXAMINATION
Skin:	( ) Normal ( ) Excessive mucus (X) Abnormal Colour ( ) Lesions ( ) Single ( ) Multiple ( ) Closed ( ) Open ( ) Haemorrhagic ( ) Necrotic ( ) Ulcer ( ) Blister ( ) Tumour ( ) Lost Scales ( ) Abrasions
	Location: Black spots
	Wet mount/smear:
Eyes:	( X) Normal ( ) Exophthalmia ( ) Cataract ( ) Haemorrhagic ( ) Opaque cornea ( ) Lens lost ( ) Parasites ( ) Bilateral
Pins:	( ) Normal ( ) Frayed ( ) Haemorrhagic ( ) Eroded ( ) Deformed
	Wet mount/smear:
Gills:	(X) Normal () Pale () Mottled () Haemorrhagic () Necrotic () Excessive mucus () Hyperplasia () Telangiectasia () Gas emboli () Cysts () Large Parasites () Fungus Visible
	Wet amount/smear:
GROSS :	INTERNAL EXAMINATION
Adipos	e Tissue:  ( ) Normal ( ) Excessive ( ) Reduced ( ) Petechial Haemorrhage ( ) Colour ( ) Cysts
	( ) Normal ( ) Enlarge ( · ) Reduced Colour: ( ) Pale ( ) Mottle ( ) Other Texture:
	( ) Lesions: ( ) Single ( ) Multiple ( ) Tumour ( ) Necrotic ( ) Haemorrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen	: ( ) Normal ( ) Enlarged ( ) Reduced ( ) Raspberry surface ( ) Cyst(parasite) ( ) Cyst (fluid) ( ) Colour
	Stained smear:
Intest	ines: ( ) Normal ( ) Distended ( fluid) ( ) Distended (mucoid) ( ) Flaccid ( ) Haemorrhagic ( ) Cysts(parasite) ( ) Tumour
Kidney	, Posterior: ( ) Normal ( ) Enlarge ( ) Lesions ( ) Single ( ) Multiple ( ) Gritty, white ( ) Cyst (parasite) ( ) Cyst (fluid) ( ) Tumour
	Stained smear:
OTHER:	

In the event that a significant number of specimen at any site have abnormalities,

contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

N.B.

		DATE: 3/11/92
SAMPLE	NO.: 94	LOCATION: 63
SPECIES	s: <u>Uns</u>	CAPTURE METHOD: Set Line
CAPTURI	E TIME:	EXAMINATION TIME: 1514
	EXTERNAL EXAMINATION	
Skin:	(X) Normal ( ) Excessive materials ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagical ( ) Elister ( ) Tumour	( ) Multiple ( ) Closed ( ) Necrotic ( ) Ulcer
	Location:	- 1945 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -
	Wet mount/smear:	
Eyes:	( ) Normal ( ) Exophth ( ) Opaque cornea ( ) Lens lo	nalmia ( ) Cataract ( ) Haemorrhagic est ( ) Parasites ( ) Bilateral
Fins:	( X ) Normal ( ) Frayed_ ( ) Eroded	( ) Haemorrhagic
	Wet mount/smear:	
Gills:	(X) Normal () Pale () Necrotic () Excessi () Telangiectasia () Gas emb () Large Parasites	( ) Mottled ( ) Haemorrhagic ve mucus ( ) Hyperplasia oli ( ) Cysts ( ) Fungus Visible
•	Wet amount/smear:	
GROSS I	NTERNAL EXAMINATION	
Adipose	NTERNAL EXAMINATION	( ) Reduced ( ) Petechial Haemorrhagi ( ) Cysts .
Adipose	Tissue: ( ) Normal ( ) Excessive ( ) Colour  ( ) Normal ( ) Enlarge ( ) Other Texture: ( ) Lesions: ( ) Single ( ) M	( · ) Reduced Colour: ( ) Pale ( ) Mottle
Adipose Liver: Spleen:	Tissue:  ( ) Normal ( ) Excessive ( ) Colour  ( ) Normal ( ) Enlarge ( ) Other Texture: ( ) Lesions: ( ) Single ( ) M ( ) Necrotic ( ) Haemorrhagic	( · ) Reduced Colour: ( ) Pale ( ) Mottle
Adipose Liver: Spleen:	Tissue:  ( ) Normal ( ) Excessive ( ) Colour  ( ) Normal ( ) Enlarge ( ) Other Texture: ( ) Lesions: ( ) Single ( ) M ( ) Necrotic ( ) Haemorrhagic	( · ) Reduced Colour: ( ) Pale ( ) Mottles ultiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)
Adipose Liver: Spleen:	Tissue:  ( ) Normal ( ) Excessive ( ) Colour  ( ) Normal ( ) Enlarge ( ) Other Texture: ( ) Lesions: ( ) Single ( ) M ( ) Necrotic ( ) Haemorrhagic  ( ) Normal ( ) Enlarge ( ) Cyst(parasite) ( ) Cyst (f Stained smear:  nes: ( ) Normal ( ) Distended ( f1	( · ) Reduced Colour: ( ) Pale ( ) Mottles  ultiple ( ) Tumour   ( ) Cyst (parasite) ( ) Cyst (Fluid)  d
Adipose Liver: Spleen: Intestin	Tissue:  ( ) Normal ( ) Excessive ( ) Colour  ( ) Normal ( ) Enlarge ( ) Other Texture: ( ) Lesions: ( ) Single ( ) M ( ) Necrotic ( ) Haemorrhagic  ( ) Normal ( ) Enlarge ( ) Cyst(parasite) ( ) Cyst (f  Stained smear:  nes: ( ) Normal ( ) Distended ( fl ( ) Flaccid ( ) Haemorrhagic  Posterior:	( · ) Reduced Colour: ( ) Pale ( ) Mottles  ultiple ( ) Tumour   ( ) Cyst (parasite) ( ) Cyst (Fluid)  d
Adipose Liver: Spleen: Intestin	Tissue:  ( ) Normal ( ) Excessive ( ) Colour  ( ) Normal ( ) Enlarge ( ) Other Texture: ( ) Lesions: ( ) Single ( ) M ( ) Necrotic ( ) Haemorrhagic  ( ) Normal ( ) Enlarge ( ) Cyst(parasite) ( ) Cyst (f  Stained smear:  ( ) Normal ( ) Distended ( fl ( ) Flaccid ( ) Haemorrhagic  Postarior: ( ) Normal ( ) Enlarge ( ) Multiple ( ) Gritty, white	( * ) Reduced Colour: ( ) Pale ( ) Mottles  ultiple ( ) Tumour   ( ) Cyst (parasite) ( ) Cyst (Fluid)  d

OTHER:

N.B. In the event that a significant number of specimen at any site have abnormalities, contractor is asked to immediately notify the Study Office.

Phone: 427-1742 or fab to 422-3055

	DATE: 3/1./92
SAMPLE NO.: 95	LOCATION: 63
SPECIES:	CAPTURE METHOD: 504 Lang
CAPTURE TIME: 1345	EXAMINATION TIME: 15/8
	EZAMIRATION TIME. O
GROSS EXTERNAL EXAMINATION	
Skin: ( Normal ( ) Excessive mu ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagic ( ) 3lister ( ) Tumour	( ) Abnormal Colour ( ) Multiple ( ) Closed ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
Location:	
Wet mount/smear:	
Eyes: (X) Normal ( ) Exophth. ( ) Opaque cornea ( ) Lens lo	
Pins: (X) Normal ( ) Frayed_ ( ) Eroded	( ) Haemorrhagic
Wet mount/smear:	
Gills: ( X ) Normal ( ) Pale ( ) Necrotic ( ) Excession ( ) Telangiectasia ( ) Gas embotic ( ) Large Parasites	ve mucus ( ) Cysts ( ) Hyperplasia
Wet amount/smear:	
GROSS INTERNAL EXAMINATION	
Adipose Tissue:	
( ) Normal ( ) Excessive	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
Liver: ( ) Normal ( ) Enlarge ( ) Other Texture: ( ) Lesions: ( ) Single ( ) Mu ( ) Necrotic ( ) Haemorrhagic	( ) Reduced Colour: ( ) Pale ( ) Mottled ultiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen:	
( ) Normal ( ) Enlarged ( ) Cyst(parasite) ( ) Cyst (fl	d ( ) Reduced ( ) Raspberry surface luid) ( ) Colour
Stained smear:	
Intestines:	
( ) Normal ( ) Distended ( flu	uid) ( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour
Kidney, Posterior:  ( ) Normal ( ) Enlarge ( ) Multiple ( ) Gritty, white ( ) Tumour	( ) Lesions ( ) Single ( ) Cyst (fluid)
Stained smear:	
OTHER:	

N.B. In the event that a significant number of specimen at any site have abnormalities, the contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

	DATE: 3/11/42
SAMPLE NO.: 96	LOCATION:S
v v	CAPTURE METHOD: Set L.
CAPTURE TIME: 1345	EXAMINATION TIME: 1520
GROSS EXTERNAL EXAMINATION	3675724763474
Skin: (\( \) Normal ( ) Excessive must (') Lesions ( ) Single ( ) Open ( ) Haemorrhagic ( ) Blister ( ) Tumour	( ) Abnormal Colour ( ) Multiple ( ) Closec ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
Location:	
Wet mount/smear:	
Eyes: ( † ) Normal ( ) Exophtha ( ) Opaque cornea ( ) Lens los	almia ( ) Cataract ( ) Haemorrhagic st ( ) Parasites ( ) Bilateral
Fins: ( ) Normal ( ) Frayed ( ) Eroded	( ) Haemorrhagic
Wet mount/smear:	
Gills: ( / ) Normal ( ) Pale ( ) Excessiv ( ) Telangiectasia ( ) Gas embo	( ) Mottled ( ) Haemorrhagic re mucus ( ) Hyperplasia li ( ) Cysts ( ) Fungus Visible
Wet amount/smear:	
GROSS INTERNAL EXAMINATION	
Adinose Tissue:	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
Adipose Tissue:     ( ) Normal ( ) Excessive     ( ) Colour	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts ( ) Reduced Colour: ( ) Pale ( ) Mottled   Itiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)
Adipose Tissue:  ( ) Normal ( ) Excessive ( ) Colour  Liver: ( ) Normal ( ) Enlarge ( ) Other Texture:	( ) Reduced Colour: ( ) Pale ( ) Mottled
Adipose Tissue:  ( ) Normal ( ) Excessive ( ) Colour  Liver: ( ) Normal ( ) Enlarge ( ) Other Texture:	( ) Reduced Colour: ( ) Pale ( ) Mottled  ltiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)  ( ) Reduced ( ) Raspberry surface  uid) ( ) Colour
Adipose Tissue:  ( ) Normal ( ) Excessive ( ) Colour  Liver: ( ) Normal ( ) Enlarge ( ) Other Texture:	( ) Reduced Colour: ( ) Pale ( ) Mottled  ltiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)  ( ) Reduced ( ) Raspberry surface  uid) ( ) Colour
Adipose Tissue:  ( ) Normal ( ) Excessive ( ) Colour  Liver: ( ) Normal ( ) Enlarge ( ) Other	( ) Reduced Colour: ( ) Pale ( ) Mottled  ltiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)  ( ) Reduced ( ) Raspberry surface  uid) ( ) Colour
Adipose Tissue:  ( ) Normal ( ) Excessive ( ) Colour  Liver: ( ) Normal ( ) Enlarge ( ) Other Texture: ( ) Lesions: ( ) Single ( ) Mu. ( ) Necrotic ( ) Haemorrhagic  Spleen: ( ) Normal ( ) Enlarged ( ) Cyst(parasite) ( ) Cyst (flustations: ( ) Normal ( ) Distended ( flustations: ( ) Flaccid ( ) Haemorrhagic  Ridney, Posterior: ( ) Normal ( ) Enlarge ( ) Multiple ( ) Gritty, white	( ) Reduced Colour: ( ) Pale ( ) Mottled  ltiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)

N.B. In the event that a significant number of specimen at any site have abnormalities, to contractor is asked to immediately notify the Study Office.

Phone: 427-1742 or fab to 422-3055

	DATE: 5/11/92
<b>SAMPLE NO.:</b> 97	LOCATION: K3
SAMPLE NO.: 97  SPECIES: 4/09	CAPTURE METHOD: Sit Line
CAPTURE TIME: 1/30	EXAMINATION TIME: 1200
GROSS EXTERNAL EXAMINATION	
Skin: (X) Normal ( ) Excessive muc ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagic ( ) Blister ( ) Tumour	( ) Necrotic ( ) Ulcer
Location:	
Wet mount/smear:	
Eyes: ( X ) Normal ( ) Exophtha ( ) Opaque cornea ( ) Lens los	
Fins: (X) Normal () Frayed	( ) Haemorrhagic
Wet mount/smear:	
Gills: ( X ) Normal ( ) Pale ( ) Necrotic ( ) Excessiv ( ) Telangiectasia ( ) Gas embo ( ) Large Parasites	e mucus ( ) Haemorrhagic e mucus ( ) Hyperplasia li ( ) Cysts ( ) Fungus Visible
Wet amount/smear:	-32-
GROSS INTERNAL EXAMINATION	
Adipose Tissue:  ( ) Normal ( ) Excessive ( ) Colour	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
( ) Other Texture: ( ) Lesions: ( ) Single ( ) Mu	( · ) Reduced Colour: ( ) Pale ( ) Mottled  ltiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen:  ( ) Normal ( ) Enlarged ( ) Cyst(parasite) ( ) Cyst (fl	( ) Reduced ( ) Raspberry surface uid) ( ) Colour
Stained smear:	
Intestines:     ( ) Normal ( ) Distended ( flu.     ( ) Flaccid ( ) Haemorrhagic	id) ( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour
Kidney, Posterior:  ( ) Normal ( ) Enlarge ( ) Multiple ( ) Gritty, white ( ) Tumour	( ) Lesions ( ) Single ( ) Cyst (parasite) ( ) Cyst (fluid)
Stained smear:	
OTHER:	

In the event that a significant number of specimen at any site have abnormalities,

contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

N.B.

	DATE: 5/1/92
<b>SAMPLE NO.:</b> 98	LOCATION: K3
SPECIES: Line	CAPTURE METHOD: St Line
CAPTURE TIME: 1115	EXAMINATION TIME: 1202
GROSS EXTERNAL EXAMINATION	
Skin: (X) Normal ( ) Excessive mu ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagic ( ) Blister ( ) Tumour	cus ( ) Abnormal Colour ( ) Multiple ( ) Closed ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
Location:	
Wet mount/smear:	
Eyes: (X) Normal ( ) Exophthat ( ) Opaque cornea ( ) Lens los	almia ( ) Cataract ( ) Haemorrhagic et ( ) Parasites ( ) Bilateral
Fins: (X) Normal ( ) Frayed	( ) Haemorrhagic
Wet mount/smear:	
Gills: (X) Normal ( ) Pale ( ) Excessiv	( ) Mottled ( ) Haemorrhagic e mucus ( ) Hyperplasia li ( ) Cysts
( ) Large Parasites	( ) Fungus Visible
( ) Large Parasites	( ) Fungus Visible
( ) Large Parasites	( ) Fungus Visible
Wet amount/smear:  GROSS INTERNAL EXAMINATION  Adipose Tissue:	( ) Reduced ( ) Petechial Haemorrhagic
Wet amount/smear:  GROSS INTERNAL EXAMINATION  Adipose Tissue:	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts ( ) Reduced Colour: ( ) Pale ( ) Mottled
Wet amount/smear:  GROSS INTERNAL EXAMINATION  Adipose Tissue:	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts ( ) Reduced Colour: ( ) Pale ( ) Mottled
Wet amount/smear:  GROSS INTERNAL EXAMINATION  Adipose Tissue:	( ) Fungus Visible  ( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts  ( ) Reduced Colour: ( ) Pale ( ) Mottled  ltiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)
Wet amount/smear:  GROSS INTERNAL EXAMINATION  Adipose Tissue:	( ) Fungus Visible  ( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts  ( ) Reduced Colour: ( ) Pale ( ) Mottled  ltiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)
Wet amount/smear:  GROSS INTERNAL EXAMINATION  Adipose Tissue:	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts ( ) Reduced Colour: ( ) Pale ( ) Mottled ltiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)  ( ) Reduced ( ) Raspberry surface uid) ( ) Colour
Wet amount/smear:  GROSS INTERNAL EXAMINATION  Adipose Tissue:	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts ( ) Reduced Colour: ( ) Pale ( ) Mottled ltiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)  ( ) Reduced ( ) Raspberry surface uid) ( ) Colour  id) ( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour

N.B. In the event that a significant number of specimen at any site have abnormalities, contractor is asked to immediately notify the Study Office.

Phone: 427-1742 or fab to 422-3055

DATE: 5/11/92

SAMPLE NO.: # 99	LOCATION: <u>k2</u>
SPECIES:	CAPTURE METHOD: Set Line
CAPTURE TIME: 1030	EXAMINATION TIME: 1206
GROSS EXTERNAL EXAMINATION	
Skin: ( \( \section \) Normal ( ) Excessive mu ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagic ( ) Blister ( ) Tumour	Cus ( ) Abnormal Colour ( ) Closed ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
Location:	
Wet mount/smear:	
Eyes: (X) Normal ( ) Exophthat ( ) Opaque cornea ( ) Lens los	
Pins: ( X) Normal ( ) Frayed_ ( ) Eroded	( ) Haemorrhagic
Wet mount/smear:	
Gills: ( X ) Normal ( ) Pale ( ) Necrotic ( ) Excessiv ( ) Telangiectasia ( ) Gas embo	( ) Mottled ( ) Haemorrhagic ve mucus ( ) Hyperplasia oli ( ) Cysts ( ) Fungus Visible
Wet amount/smear:	
GROSS INTERNAL EXAMINATION	
Adipose Tissue:	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
( ) Other Texture: ( ) Lesions: ( ) Single ( ) Mu	( ) Reduced Colour: ( ) Pale ( ) Mottled altiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)
<pre>Spleen:     ( ) Normal</pre>	( ) Reduced ( ) Raspberry surface
	uid) ( ) Colour
Stained smear:	.uid) ( ) Colour
Stained smear:	aid) ( ) Colour
Stained smear:  Intestines: ( ) Normal ( ) Distended ( flu ( ) Flaccid ( ) Haemorrhagic	
Stained smear:  Intestines:  ( ) Normal ( ) Distended ( flu  ( ) Flaccid ( ) Haemorrhagic  Kidney, Posterior:  ( ) Normal ( ) Enlarge  ( ) Multiple ( ) Gritty, white	aid) ( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour
Stained smear:  Intestines:  ( ) Normal ( ) Distended ( flu  ( ) Flaccid ( ) Haemorrhagic  Kidney, Posterior:  ( ) Normal ( ) Enlarge  ( ) Multiple ( ) Gritty, white  ( ) Tumour	aid) ( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour

N.B. In the event that a significant number of specimen at any site have abnormalities, the contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

DATE: 5/11/92

SAMPLE NO.: ///	LOCATION: _K2
SPECIES: Ling	CAPTURE METEOD: Set Line
CAPTURE TIME: //O	EXAMINATION TIME: 1209
GROSS EXTERNAL EXAMINATION	
Skin: ( X) Normal ( ) Excessive mu ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagic ( ) Blister ( ) Tumour	( ) Abnormal Colour ( ) Multiple ( ) Closed ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
Location:	
Wet mount/smear:	
Eyes: ( X) Normal ( ) Exophth ( ) Opaque cornea ( ) Lens lo	almia ( ) Cataract ( ) Haemorrhagic st ( ) Parasites ( ) Bilateral
Fins: (X) Normal ( ) Frayed_	( ) Haemorrhagic
Wet mount/smear:	
Gills: ( X) Normal ( ) Pale ( ) Necrotic ( ) Excessi ( ) Telangiectasia ( ) Gas emb ( ) Large Parasites	( ) Mottled ( ) Haemorrhagic ve mucus ( ) Hyperplasia oli ( ) Cysts ( ) Fungus Visible
Wet amount/smear:	
GROSS INTERNAL EXAMINATION	
Adipose Tissue: ( ) Normal ( ) Excessive ( ) Colour	( ) Reduced ( ) Petechial Haemorrhagis
( ) Other Texture: ( ) Lesions: ( ) Single ( ) M	( ) Reduced Colour: ( ) Pale ( ) Mottled ultiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen:     ( ) Normal ( ) Enlarge     ( ) Cyst(parasite) ( ) Cyst (f	d ( ) Reduced ( ) Raspberry surface luid) ( ) Colour
Stained smear:	
Intestines:     ( ) Normal ( ) Distended ( fl     ( ) Flaccid ( ) Haemorrhagic	uid) ( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour
<pre>Kidney, Posterior:     ( ) Normal ( ) Enlarge     ( ) Multiple ( ) Gritty, white     ( ) Tumour</pre>	( ) Lesions ( ) Single ( ) Cyst (parasite) ( ) Cyst (fluid)
Stained smear:	
OTHER:	
	now of specimen as any site have abnormalities

W.B. In the event that a significant number of specimen at any site have abnormalities, contractor is asked to immediately notify the Study Office.

Phone: 427-1742 or fab to 422-3055

## NORTHERN RIVER BASINS STUDY EXAMINATION SHEETS

GROSS PATHOLOGY

	DATE:	5/11/92	
SAMPLE NO.:	/ /O / LOCATIO	N: <u>K2</u>	
SAMPLE NO.: #	7 G CAPTURE	METHOD: Set 4	ine
CAPTURE TIME: _	1045 EXAMINA	TION TIME: 12	12
GROSS EXTERNAL			
Skin: (X) Norm ( ) Les: ( ) Open ( ) Blis	mal ( ) Excessive mucus ( ions ( ) Single ( n ( ) Haemorrhagic ( ster ( ) Tumour (	) Abnormal Cold ) Multiple ) Necrotic ) Lost Scales	( ) Closed ( ) Ulcer ( ) Abrasions
Location	:		
Wet mount	:/smear:		
	nal ( ) Exophthalmia ( que cornea ( ) Lens lost (		
Fins: ( * ) Norm ( ) Eroc	nal () Frayed(	) Deformed	) Haemorrhagic
	:/smear:		
Gills: ( X ) Norm ( ) Necr ( ) Tela ( ) Larg	mal ( ) Pale ( cotic ( ) Excessive mucus angiectasia ( ) Gas emboli ( ge Parasites(	) Mottled ( ( ) Cysts ) Fungus Visibl	) Haemorrhagic ) Hyperplasia
Wet amoun	nt/smear:		
GROSS INTERNAL E	MATION		
Adipose Tissue: ( ) Norm ( ) Colo	mal ( ) Excessive ( ) Recour	iuced ( ) Posts	etechial Haemorrnagic
( ) Othe	nal () Enlarge () Record Texture: Lons: () Single () Multiple cotic () Haemorrhagic () Cys	( ) Tumour	
Spleen: ( ) Norm ( ) Cyst	mal ( ) Enlarged ( c(parasite) ( ) Cyst (fluid) (	) Reduced (	Raspberry surface
Stained s	smear:		
Intestines: ( ) Norm ( ) Flac	nal ( ) Distended ( fluid) ( coid ( ) Haemorrhagic (	) Distended (muc ) Cysts(parasit	soid) e) ( ) Tumour
Kidney, Posterio ( ) Norm ( ) Mult ( ) Tumo	nal ( ) Enlarge ( ) Les tiple ( ) Gritty, white ( ) Cys	sions st (parasite)	( ) Single ( ) Cyst (fluid)
Stained s	smear:		
OTHER:			
N.B. In the ev	ent that a significant number of spe	ecimen at any site	have abnormalities, to

contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

DATE: 5/11/92

SAMPLE NO.: /D2	LOCATION: K-2
SPECIES: Ling	CAPTURE METHOD: Set Line
CAPTURE TIME: /045	EXAMINATION TIME: 1216
GROSS EXTERNAL EXAMINATION	
Skin: (X) Normal ( ) Excessive ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhag ( ) Blister ( ) Tumour	mucus ( ) Abnormal Colour ( ) Multiple ( ) Closed ic ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
Location:	
Wet mount/smear:	
	thalmia ( ) Cataract ( ) Haemorrhagic lost ( ) Parasites ( ) Bilateral
Fins: (X ) Normal ( ) Frayed ( ) Eroded	d( ) Haemorrhagic
Wet mount/smear:	
Gills: ( / ) Normal ( ) Pale ( ) Necrotic ( ) Excess ( ) Telangiectasia ( ) Gas en ( ) Large Parasites	( ) Mottled ( ) Haemorrhagic sive mucus ( ) Hyperplasia mboli ( ) Cysts ( ) Fungus Visible
Wet amount/smear:	
GROSS INTERNAL EXAMINATION	
Adipose Tissue:  ( ) Normal ( ) Excessive ( ) Colour	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
( ) Cther Texture: ( ) Lesions: ( ) Single ( )	( ) Reduced Colour: ( ) Pale ( ) Mottled Multiple ( ) Tumour ic ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen:	
( ) Normal ( ) Enlarg ( ) Cyst(parasite) ( ) Cyst (	ged ( ) Reduced ( ) Raspberry surface (fluid) ( ) Colour
Stained smear:	
Intestines:	
( ) Normal ( ) Distended ( ) ( ) Flaccid ( ) Haemorrhagic	fluid) ( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour
<pre>Ridney, Posterior:     ( ) Normal ( ) Enlarge     ( ) Multiple ( ) Gritty, white     ( ) Tumour</pre>	( ) Lesions ( ) Single ( ) Cyst (parasite) ( ) Cyst (fluid)
Stained smear:	
OTHER:	
was to the among that a dignificant ou	mber of specimen at any site have abnormalities.

N.B. In the event that a significant number of specimen at any site have abnormalities, contractor is asked to immediately notify the Study Office.

Phone: 427-1742 or fab to 422-3055

	5/11/92
DATE:	5////72

SAMPLE	: NO.:			LOCATION:	K1	
		Ling		CAPTURE HE	THOD: <u>5e</u>	Line
		: _ 6946		EXAMINATIO	N TIME:	1220
		al examinati				
Skin:	(×) ( )	Normal Lesions Open Blister	( ) Excessive muc ( ) Single ( ) Haemorrhagic ( ) Tumour	( ) ( ) ( )	Abnormal Conduction Neurotic Lost Scales	( ) Closed ( ) Ulcer e ( ) Abrasions
	Locat	ion:				
	Wet mo	ount/smear: _	<del> </del>			
Eyes:	(× ) 1	Normal	( ) Exophthal	lmia ( )	Cataract ( Parasites (	) Haemorrhagic ) Bilateral
Fins:	( \ ) }	Normal Eroded	( ) Frayed	( )	Deformed	) Haemorrhagic
				<del></del>	······································	
Gills:	(大) ! ( ) ! ( ) !	Normal Necrotic Telangiectas: Large Parasi	( ) Pale ( ) Excessive ia ( ) Gas embol	( ) e mucus Li ( )	Mottled ( Cysts Fungus Visi	) Haemorrhagic ) Hyperplasia ble
	Wet a	mount/smear:				
GROSS :	INTERNI	AL EXAMINATION	ON			
Adipos	( ) 2	Normal	( ) Excessive (	( ) Reduce ( ) Cysts	å ( )	Perechial Haemorrhagic
Liver:	( ) (	Other	( ) Enlarge ( Texture: ) Single ( ) Mul ( ) Haemorrhagic (	tiple (	) Tumour	( ) Pale ( ) Mottled ) Cyst (Fluid)
Splean	: ( ) ! ( ) '	Normal Cyst(parasit:	( ) Enlarged e) ( ) Cyst (flu	igg) ( )	Reduced (	) Raspberry surface
	Stain	ed smear:				
Intest	ines: ( ) ! ( ) !	Normal ( Flaccid (	) Distended ( flui ) Haemorrhagic	( ) ( )	Distended ( Cysts(paras	mucoid) ite) ( ) Tumour
Kidney	( ) !	srior: Normal ( Multiple ( Tumour	) Enlarge ( ) Gritty, white (	( ) Lesion ( ) Cyst (	s parasite)	( ) Single ( ) Cyst (fluid)
	Stain	ed smear:				_
OTHER:						
N.B.	In the	e event that actor is ask	a significant numbe ed to immediately r	r of specim notify the	men at any s Study Offic	ite have abnormalities, : e.

Phone: 427-1742 or fab to 422-3055

DATE: 5/11/92

MPLE NO.: #104  ECIES: Ling	LOCATION:K/
ecies: Line	CAPTURE METHOD: Set Line
PTURE TIME: 100	EXAMINATION TIME: 1228
oss external exami	
in: ( \( \sum \) Normal ( ) Lesions ( ) Open ( ) Blister	( ) Excessive mucus ( ) Abnormal Colour ( ) Single ( ) Multiple ( ) Closed ( ) Haemorrhagic ( ) Necrotic ( ) Ulcer ( ) Tumour ( ) Lost Scales ( ) Abrasions
Location:	
Wet mount/smea	r:
	( ) Exophthalmia ( ) Cataract ( ) Haemorrhagic ornea ( ) Lens lost ( ) Parasites ( ) Bilateral
(X) Normal ( ) Eroded	( ) Frayed ( ) Haemorrhagic
ls: ( /) Normal ( ) Necrotic ( ) Telangies	( ) Pale ( ) Mottled ( ) Haemorrhagic ( ) Excessive mucus ( ) Hyperplasia ( ) Gas emboli ( ) Cysts ( ) Fungus Visible
Wet amount/sme	ear:
SS INTERNAL EXAMIN	ATION
pose Tissue:	( ) Excessive ( ) Reduced ( ) Petechial Haemorrha ( ) Cysts
( ) Other ( ) Lesions:	( ) Enlarge ( ) Reduced Colour: ( ) Pale ( ) Motte Texture: ( ) Single ( ) Multiple ( ) Tumour ( ) Haemorrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid)
.een: ( ) Normal ( ) Cyst(para	( ) Enlarged ( ) Reduced ( ) Raspberry surfactsite) ( ) Cyst (fluid) ( ) Colour
Stained smear:	
( ) Normal ( ) Flaccid	( ) Distended (fluid) ( ) Distended (mucoid) ( ) Haemorrhagic ( ) Cysts(parasite) ( ) Tumour
ney, Posterior:	( ) Enlarge ( ) Lesions ( ) Single ( ) Gritty, white ( ) Cyst (parasite) ( ) Cyst (fluid)
Stained smear:	
ER:	
contractor is	hat a significant number of specimen at any site have abnormalitie asked to immediately notify the Study Office.

DATE: 5/11/92

SAMPLE NO.: #105  SPECIES: Lins	LOCATION: K/
SPECIES: Line	CAPTURE METHOD: Set Line
CAPTURE TIME: /000	EXAMINATION TIME: 1232
GROSS EXTERNAL EXAMINATION	
Skin: (\(\frac{1}{2}\) Normal ( ) Excessive mu ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagic ( ) Blister ( ) Tumour	( ) Abnormal Colour ( ) Multiple ( ) Closec ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
Location:	
Wet mount/smear:	
	malmia ( ) Cataract ( ) Haemorrhagic est ( ) Parasites ( ) Bilateral
Fins: (-\tau) Normal ( ) Frayed_ ( ) Eroded	( ) Haemorrhagic
Wet mount/smear:	
Gills: ( ) Normal ( ) Pale ( ) Necrotic ( ) Excessi ( ) Telangiectasia ( ) Gas emb ( ) Large Parasites	( ) Mottled ( ) Haemorrhagic ve mucus ( ) Hyperplasia oli ( ) Cysts ( ) Fungus Visible
Wet amount/smear:	
GROSS INTERNAL EXAMINATION	
Adipose Tissue: ( ) Normal ( ) Excessive ( ) Colour	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
( ) Other Texture: ( ) Lesions: ( ) Single ( ) M	( ) Reduced Colour: ( ) Pale ( ) Mottled Multiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen:     ( ) Normal ( ) Enlarge     ( ) Cyst(parasite) ( ) Cyst (f	d ( ) Reduced ( ) Raspberry surface luid) ( ) Colour
Stained smear:	
Intestines:     ( ) Normal ( ) Distended ( fl     ( ) Flaccid ( ) Haemorrhagic	uid) ( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour
<pre>Kidney, Posterior:     ( ) Normal ( ) Enlarge     ( ) Multiple ( ) Gritty, white     ( ) Tumour</pre>	( ) Lesions ( ) Single ( ) Cyst (parasite) ( ) Cyst (fluid)
Stained smear:	
OTHER:	

N.B. In the event that a significant number of specimen at any site have abnormalities, the contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

DATE:	5/11/92	
	V/	

SAMPLE	NO.: 106 LOCATION: K/
SPECIE	s: Ling CAPTURE METHOD: Set Line
	E TIME: 1000 EXAMINATION TIME: 1236
GROSS	EITERNAL EXAMINATION
Skin:	( ) Normal ( ) Excessive mucus ( ) Abnormal Colour ( ) Lesions ( ) Single ( ) Multiple ( ) Closec ( ) Open ( ) Haemorrhagic ( ) Necrotic ( ) Ulcer ( ) Blister ( ) Tumour ( ) Lost Scales ( ) Abrasions
	Location:
	Wet mount/smear:
yes:	( ✓ ) Normal ( ) Exophthalmia ( ) Cataract ( ) Haemorrhagic ( ) Opaque cornea ( ) Lens lost ( ) Parasites ( ) Bilateral
'ins:	( y ) Normal ( ) Frayed ( ) Haemorrhagic ( ) Eroded ( ) Deformed
	Wet mount/smear:
ills:	( V) Normal ( ) Pale ( ) Mottled ( ) Haemorrhagic ( ) Necrotic ( ) Excessive mucus ( ) Hyperplasia ( ) Telangiectasia ( ) Gas emboli ( ) Cysts ( ) Large Parasites ( ) Fungus Visible
	Wet amount/smear:
ROSS I	INTERNAL EXAMINATION
dipose	Tissue: ( ) Normal ( ) Excessive ( ) Reduced ( ) Petechial Haemorrhage ( ) Colour ( ) Cysts
iver:	( ) Normal ( ) Enlarge ( ) Reduced Colour: ( ) Pale ( ) Mottle ( ) Other Texture: ( ) Lesions: ( ) Single ( ) Multiple ( ) Tumour ( ) Necrotic ( ) Haemorrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid)
pleen:	( ) Normal ( ) Enlarged ( ) Reduced ( ) Raspberry surface ( ) Cyst(parasite) ( ) Cyst (fluid) ( ) Colour
	Stained smear:
ntesti	nes:
	( ) Normal ( ) Distended (fluid) ( ) Distended (mucoid) ( ) Flaccid ( ) Haemorrhagic ( ) Cysts(parasite) ( ) Tumour
idney,	Posterior:  ( ) Normal ( ) Enlarge ( ) Lesions ( ) Single ( ) Multiple ( ) Gritty, white ( ) Cyst (parasite) ( ) Cyst (fluid) ( ) Tumour
	Stained smear:
THER:	
I.B.	In the event that a significant number of specimen at any site have abnormalities, contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

DATE: 5/11/92 SAMPLE NO .: 107 CAPTURE METHOD: Set Line SPECIES: EXAMINATION TIME: 1242 CAPTURE TIME: GROSS EXTERNAL EXAMINATION ( ) Normal ( ) Excessive mucus ( ) Abnormal Colour ( ) Lesions ( ) Single ( ) Multiple ( ) Closec ( ) Open ( ) Haemorrhagic ( ) Necrotic ( ) Ulcer ( ) Blister ( ) Tumour ( ) Lost Scales ( ) Abrasions Skin: ( \( \( \) \) Normal Location: \_ Wet mount/smear: \_ (\(\frac{1}{2}\)) Normal (\(\frac{1}{2}\)) Exophthalmia (\(\frac{1}{2}\)) Cataract (\(\frac{1}{2}\)) Haemorrhagic (\(\frac{1}{2}\)) Opaque cornea (\(\frac{1}{2}\)) Lens lost (\(\frac{1}{2}\)) Farasites (\(\frac{1}{2}\)) Bilateral Eyes: (+) Normal ( \( \) Normal ( ) Frayed ( ) Deformed \_\_\_\_ ( ) Haemorrhagic Fins: ( \( \superset \) Normal Wet mount/smear: ( ) Normal ( ) Pale ( ) Mottled ( ) Haemorrhagic ( ) Necrotic ( ) Excessive mucus ( ) Hyperplasia ( ) Gas emboli ( ) Cysts ( ) Large Parasites ( ) Fungus Visible Gills: ( → Normal Wet amount/smear: \_\_ GROSS INTERNAL EXAMINATION Adipose Tissue: ( ) Normal ( ) Excessive ( ) Reduced ( ) Petechial Haemorrhagic ( ) Colour ( ) Cysts Liver: ( ) Normal ( ) Enlarge ( ) Other \_\_\_\_\_ Texture: Spleen: ( ) Normal ( ) Enlarged ( ) Reduced ( ) Raspberry surface ( ) Cyst(parasite) ( ) Cyst (fluid) ( ) Colour \_\_\_\_\_ ( ) Normal Stained smear: \_ Intestines: ( ) Normal ( ) Distended (fluid) ( ) Distended (mucoid) ( ) Flaccid ( ) Haemorrhagic ( ) Cysts(parasite) ( ) Tumour ( ) Normal ( ) Enlarge ( ) Lesions ( ) Single ( ) Multiple ( ) Gritty, white ( ) Cyst (parasite) ( ) Cyst (fluid) ( ) Tumour Kidney, Posterior: Stained smear:

N.B. In the event that a significant number of specimen at any site have abnormalities, to contractor is asked to immediately notify the Study Office.

Phone: 427-1742 or fab to 422-3055

DATE: 5/11/92

SAMPLE NO.: 10 8	LOCATION: KI
SPECIES: Ling	CAPTURE METHOD: Set Ling
CAPTURE TIME: 1015	EXAMINATION TIME: 1249
GROSS EXTERNAL EXAMINATION	
Skin: ( \( \) Normal ( ) ( \( \) Lesions ( ) ( ) Open ( ) ( ) Blister ( )	Excessive mucus ( ) Abnormal Colour Single ( ) Multiple ( ) Closec Haemorrhagic ( ) Necrotic ( ) Ulcer Tumour ( ) Lost Scales ( ) Abrasions
Location:	
Wet mount/smear:	
	( ) Exophthalmia ( ) Cataract ( ) Haemorrhagic ( ) Lens lost ( ) Parasites ( ) Bilateral
Pins: ( < ) Normal ( ) Eroded	( ) Frayed ( ) Haemorrhagic
Wet mount/smear:	
Hills: ( \( \) Normal ( ) Necrotic ( ) Telangiectasia ( ) Large Parasites	( ) Pale ( ) Mottled ( ) Haemorrhagic ( ) Excessive mucus ( ) Hyperplasia ( ) Gas emboli ( ) Cysts ( ) Fungus Visible
Wet amount/smear:	
ROSS INTERNAL EXAMINATION	
dipose Tissue: ( ) Normal ( ) ( ) Colour	Excessive ( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
( ) Other( ) Si	Enlarge ( ) Reduced Colour: ( ) Pale ( ) Mottled Texture: ingle ( ) Multiple ( ) Tumour Haemorrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid)
pleen:	( ) Enlarged ( ) Reduced ( ) Raspberry surface ( ) Cyst (fluid) ( ) Colour
Stained smear:	
ntestines: ( ) Normal ( ) Di ( ) Flaccid ( ) Ha	istended (fluid) ( ) Distended (mucoid) aemorrhagic ( ) Cysts(parasite) ( ) Tumour
idney, Posterior:     ( ) Normal ( ) En     ( ) Multiple ( ) Gn     ( ) Tumour	nlarge ( ) Lesions ( ) Single ritty, white ( ) Cyst (parasite) ( ) Cyst (fluid)
Stained smear:	
THER:	
	gnificant number of specimen at any site have abnormalities, o immediately notify the Study Office.

			DATE: 5/11/9	2	
SAMPLE	NO.: 109		LOCATION:	KI	_
SPECIES	No.: 109 : Ling		CAPTURE METHOD:		
	TIME: 10	015	EXAMINATION TIME	1257	
	TOPRNAL EXAMINAT	ION			
Skin:	(1) Normal (1) Lesions (1) Open (1) Blister	( ) Excessive must ( ) Single ( ) Haemorrhagic ( ) Tumour	cus ( ) Abnom ( ) Multip ( ) Necrot ( ) Lost S	mal Colour ole ( ) Clo cic ( ) Ulo ccales ( ) Abr	osed cer rasions
I	Location:				
Ş	Wet mount/smear:				·
Eyes: (	( \( \) Normal ( ) Opaque corne	( ) Exophtha a ( ) Lens los	ilmia ( ) Catara it ( ) Parasi	ct ( ) Haemor tes ( ) Bilate	rhagic ral
Fins: (	Normal Eroded	( ) Frayed	( ) Deform	( ) Haemor	Thagic
V	Wet mount/smear:				
Gills: ( ( (	Normal Necrotic Telangiectas Large Parasi	( ) Pale ( ) Excessiv ia ( ) Gas embo	( ) Mottle re mucus li ( ) Cysts ( ) Fungus	d ( ) Haemor ( ) Hyperp Visible	rhagic lasia
¥	Wet amount/smear:				<del></del>
GROSS IN	TTERNAL EXAMINATI	ON			
- (	Tissue:   Normal   Colour	( ) Excessive	( ) Reduced ( ) Cysts	( ) Petechial	Haemorrhagic
(	) Other	( ) Enlarge Texture: ) Single ( ) Mu ( ) Haemorrhagic	ltiple ( ) Tumo	<u> </u>	
Spleen: (	) Normal ) Cyst(parasit	( ) Enlarged	( ) Reduce	d ( ) Raspbe	rry surface
\$	stained smear:				
Intestir (	nes: ( ) Normal ( ( ) Flaccid (	) Distended ( flu ) Haemorrhagic	id) ( ) Disten	ded (mucoid) parasite)	Tumour
(	Posterior: ( ) Normal ( ( ) Multiple ( ( ) Tumour	) Enlarge ) Gritty, white	( ) Lesions ( ) Cyst (parasi	( ) Sin te) ( ) Cys	gle t (fluid)
S	Stained smear:				
OTHER:					

N.B. In the event that a significant number of specimen at any site have abnormalities, the contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

DATE: 5/11/92 LOCATION: \_\_\_\_K SAMPLE NO. CAPTURE METHOD: Set Line SPECIES: 1303 EXAMINATION TIME: CAPTURE TIME: GROSS EXTERNAL EXAMINATION ( ) Excessive mucus ( ) Abnormal Colour ( ) Single ( ) Multiple ( ) Closec ( ) Haemorrhagic ( ) Necrotic ( ) Ulcer ( /) Normal Skin: ) Lesions ( ) Blister ( ) Tumour ( ) Lost Scales ( ) Abrasions Location: \_\_ Wet mount/smear: \_\_\_ ( Normal ( ) Exophthalmia ( ) Cataract ( ) Haemorrhagic ( ) Opaque cornea ( ) Lens lost ( ) Parasites ( ) Bilateral Eyes: ( ) Deformed \_\_\_\_\_ Fins: Wet mount/smear: \_\_\_\_ ( ) Normal ( ) Pale ( ) Mottled ( ) Haemorrhagic ( ) Necrotic ( ) Excessive mucus ( ) Hyperplasia ( ) Telangiectasia ( ) Gas emboli ( ) Cysts Gills: ( X) Normal ( ) Mottled ( ) Haemorrhagic ( ) Large Parasites \_\_\_\_\_ ( ) Fungus Visible Wet amount/smear: \_\_\_\_ GROSS INTERNAL EXAMINATION ( ) Normal ( ) Excessive ( ) Reduced ( ) Petechial Haemorrhagic ( ) Colour ( ) Cysts Adipose Tissue: Liver: ( ) Normal ( ) Enlarge Spleen: ( ) Normal ( ) Enlarged ( ) Reduced ( ) Raspberry surface ( ) Cyst(parasite) ( ) Cyst(fluid) ( ) Colour \_\_\_\_\_ Stained smear: \_ Intestines: ( ) Normal ( ) Distended ( fluid) ( ) Distended (mucoid) ( ) Flaccid ( ) Haemorrhagic ( ) Cysts(parasite) ( ) Cysts(parasite) ( ) Tumour Kidney, Posterior: ( ) Normal ( ) Enlarge ( ) Lesions ( ) Single ( ) Multiple ( ) Gritty, white ( ) Cyst (parasite) ( ) Cyst (fluid) ( ) Tumour Stained smear: \_

N.B. In the event that a significant number of specimen at any site have abnormalities, contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

OTHER:

DATE: 5/11/92

SAMPLE	NO.: ///	LOCATION:	K 3	
SPECIE	s: Line	CAPTURE N	ETHOD: Setling	
	E TIME: 1130	EXAMINATE	ON TIME:	10
GROSS :	EXTERNAL EXAMINATION			
Skin:	( ★) Normal ( ) ( ) ( ) ( ) Lesions ( ) ( ) ( ) Open ( ) ( ) ( ) dister ( ) ( )	Excessive mucus ( ) Single ( ) Haemorrhagic ( ) Tumour ( )	Abnormal Colour Multiple ( ) Close Necrotic ( ) Ulcer Lost Scales ( ) Abras	c
	Location:			
	Wet mount/smear:			
			Cataract ( ) Haemorrh Parasites ( ) Bilatera	
Fins:	( %) Normal ( ) Eroded	) Frayed( )	Deformed ( ) Haemorrh	
	Wet mount/smear:			
Gills:	( X) Normal ( ) Necrotic ( ) Telangiectasia ( ) Large Parasites	) Gas embor- ( )	Mottled ( ) Haemorrha ( ) Hyperplas Cysts Fungus Visible	agic
	Wet amount/smear:			
GROSS I	INTERNAL EXAMINATION			
Adipose	Tissue: ( ) Normal ( ) E ( ) Colour	Cxcessive ( ) Reduc ( ) Cysts	ed ( ) Petechial Ha	aemorrhagic
Liver:	( ) Other Sir	Texture:	ed Colour: ( ) Pale ( ) Tumour (parasite) ( ) Cyst (Flu	
Spleen:	( ) Normal ( ( ) Cyst(parasite) (	) Enlarged ( ) ) Cyst (fluid) ( )	Reduced ( ) Raspberry	v surface
	Stained smear:			
Intesti	ines: ( ) Normal ( ) Dis ( ) Flacsid ( ) Has	stended (fluid) ( ) emorrhagic ( )	Distended (mucoid) Cysts(parasite) ( )	Tumour
Kidney,	, Posterior: ( ) Normal ( ) Enl ( ) Multiple ( ) Gri ( ) Tumour	.arge ( ) Lesio Ltty, white ( ) Cyst	ns ( ) Single (parasite) ( ) Cyst (	e (fluid)
	Stained smear:			
OTHER:				
N.B.	In the event that a sign contractor is asked to Phone: 427-1742 or fab	immediately notify the	men at any site have abnor Study Office.	rmalities,

DATE: 5/11/92

SAMPLE NO.: 1/2	LOCATION: K3
SPECIES: Ling	CAPTURE METHOD: Set Line
CAPTURE TIME: 4 /145	EXAMINATION TIME: 13/6
GROSS EXTERNAL EXAMINATION	
Skin: ( \( \) Normal ( ) E ( ) Lesions ( ) S ( ) Open ( ) E ( ) Blister ( ) T	Excessive mucus ( ) Abnormal Colour  Single ( ) Multiple ( ) Closec  Saemorrhagic ( ) Necrotic ( ) Ulcer  Tumour ( ) Lost Scales ( ) Abrasions
Location:	
Wet mount/smear:	
Eyes: ( \( \) Normal (  ( ) Opaque cornea (	) Exophthalmia ( ) Cataract ( ) Haemorrhagic ) Lens lost ( ) Parasites ( ) Bilateral
Fins: ( \( \) Normal ( ) Eroded	) Frayed ( ) Haemorrhagic
Wet mount/smear:	
Gills: (\(\psi\) Normal ( \(\) Necrotic ( \(\) Telangiectasia ( \(\) Large Parasites	) Pale ( ) Mottled ( ) Haemorthagic ) Excessive mucus ( ) Hyperplasia ) Gas emboli ( ) Cysts ( ) Fungus Visible
Wet amount/smear:	
GROSS INTERNAL EXAMINATION	
Adipose Tissue:	xcessive ( ) Reduced ( ) Petechial Haemorrhagic
( ) Other	nlarge ( ) Reduced Colour: ( ) Pale ( ) Mottled Texture: gle ( ) Multiple ( ) Tumour aemorrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen:	) Enlarged ( ) Reduced ( ) Raspberry surface ) Cyst (fluid) ( ) Colour
Stained smear:	
Intestines:     ( ) Normal ( ) Dist     ( ) Flaccid ( ) Haer	tended ( fluid) ( ) Distended (mucoid) morrhagic ( ) Cysts(parasite) ( ) Tumour
Ridney, Posterior:	arge ( ) Lesions ( ) Single tty, white ( ) Cyst (parasite) ( ) Cyst (fluid)
Stained smear:	
OTHER:	

N.B. In the event that a significant number of specimen at any site have abnormalities, tontractor is asked to immediately notify the Study Office.

Phone: 427-1742 or fab to 422-3055

		DATE: 7/1/92
SAMPLE	: NO.: 1/3	LOCATION: I
SPECIE	s: Ling	CAPTURE METHOD: Soffine
	E TIME: 930	EXAMINATION TIME: 1056
	EXTERNAL EXAMINATION	
Skin:	<pre>(X) Normal ( ) Excessive mu ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagic ( ) Blister ( ) Tumour</pre>	cus ( ) Abnormal Colour ( ) Multiple ( ) Closed ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
	Location:	
	Wet mount/smear:	
		almia ( ) Cataract ( ) Haemorrhagic st ( ) Parasites ( ) Bilateral
Fins:	( ) Normal ( ) Frayed_ ( ) Eroded	( ) Haemorrhagic
	Wet mount/smear:	
Gills:	( ) Normal ( ) Pale ( ) Necrotic ( ) Excessive ( ) Telangiectasia ( ) Gas embode ( ) Large Parasites	( ) Mottled ( ) Haemorrhagic ve mucus ( ) Hyperplasia oli ( ) Cysts ( ) Fungus Visible
	Wet amount/smear:	
GROSS I	INTERNAL EXAMINATION	
Adipose	Tissue: ( ) Normal ( ) Excessive ( ) Colour	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
	( ) Other Texture: ( ) Lesions: ( ) Single ( ) Mu	( ) Reduced Colour: ( ) Pale ( ) Mottled  altiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen:	( ) Normal ( ) Enlarged ( ) Cyst(parasite) ( ) Cyst (f)	d ( ) Reduced ( ) Raspberry surface
	Stained smear:	
Intesti	ines: ( ) Normal ( ) Distended ( flu ( ) Flaccid ( ) Haemorrhagic	aid) ( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour
Kidn <b>e</b> y,	<pre>Postarior:   ( ) Normal</pre>	( ) Lesions ( ) Single ( ) Cyst (parasite) ( ) Cyst (fluid)
	Stained smear:	
OTHER:		
N.B.	In the event that a significant numb contractor is asked to immediately	er of specimen at any site have abnormalities, to notify the Study Office.

N.B.

Phone: 427-1742 or fab to 422-3055

		DATE: 7-/1/1/92
SAMPLE		LOCATION:
		CAPTURE METHOD: SetLine
		EXAMINATION TIME: 1059
GROSS	B EXTERNAL EXAMINATION	
Skin:	( ) Normal ( ) Excessive muct ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagic ( ) Blister ( ) Tumour	( ) Abnormal Colour ( ) Multiple ( ) Closed ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
	Location:	
	Wet mount/smear:	
	(X) Normal ( ) Exophthal ( ) Opaque cornea ( ) Lens lost	
Fins:	( ) Normal ( ) Frayed	( ) Haemorrhagic
	Wet mount/smear:	
Gills:	( ) Normal ( ) Pale ( ) Necrotic ( ) Excessive ( ) Telangiectasia ( ) Gas embol ( ) Large Parasites	( ) Mottled ( ) Haemorrhagic mucus ( ) Hyperplasia i ( ) Cysts ( ) Fungus Visible
	Wet amount/smear:	
GROSS :	INTERNAL EXAMINATION	
Adipose	Tissue: ( ) Normal ( ) Excessive ( ( ) Colour (	) Reduced ( ) Petechial Haemorrhagic ) Cysts
	( ) Other Texture: ( ) Lesions: ( ) Single ( ) Mul:	) Reduced Colour: ( ) Pale ( ) Mottled tiple ( ) Tumour ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen:	l:	( ) Beduced ( ) Bearing and
		( ) Reduced ( ) Raspberry surface id) ( ) Colour
	Stained smear:	-
Intesti	( ) Normal ( ) Distended ( fluid ( ) Flaccid ( ) Haemorrhagic	d) ( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour
Kidney,	<pre>( ) Posterior:    ( ) Normal</pre>	) Lesions ( ) Single ) Cyst (parasite) ( ) Cyst (fluid)
	Stained smear:	
OTHER:	:	
M.B.	In the event that a significant number contractor is asked to immediately no Phone: 427-1742 or fab to 422-3055	of specimen at any site have abnormalities, totify the Study Office.

DATE: 7/11/92

SAMPLE	NO.: 115 LOCATION: 7
SPECIE	S: Ling CAPTURE METHOD: SET LINE
CAPTUR	E TIME: $9.30$ EXAMINATION TIME: $11.02$
	EXTERNAL EXAMINATION
Skin:	(★) Normal       ( ) Excessive mucus       ( ) Abnormal Colour         ( ) Lesions       ( ) Single       ( ) Multiple       ( ) Closed         ( ) Open       ( ) Haemorrhagic       ( ) Necrotic       ( ) Ulcer         ( ) Blister       ( ) Tumour       ( ) Lost Scales       ( ) Abrasions
	Location:
	Wet mount/smear:
	(X) Normal ( ) Exophthalmia ( ) Cataract ( ) Haemorrhagic ( ) Opaque cornea ( ) Lens lost ( ) Parasites ( ) Bilateral
Pins:	( ) Normal ( ) Frayed ( ) Haemorrhagic ( ) Eroded ( ) Deformed
	Wet mount/smear:
Gills:	( ) Normal ( ) Pale ( ) Mottled ( ) Haemorrhagic ( ) Necrotic ( ) Excessive mucus ( ) Hyperplasia ( ) Gas emboli ( ) Cysts ( ) Large Parasites ( ) Fungus Visible
	Wet amount/smear:
GROSS :	INTERNAL EXAMINATION
Adipose	Tissue: ( ) Normal ( ) Excessive ( ) Reduced ( ) Petechial Haemorrhagic ( ) Colour ( ) Cysts
Liver:	( ) Normal ( ) Enlarge ( ) Reduced Colour: ( ) Pale ( ) Mottled ( ) Other Texture: ( ) Lesions: ( ) Single ( ) Multiple ( ) Tumour ( ) Necrotic ( ) Haemorrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen	( ) Normal ( ) Enlarged ( ) Reduced ( ) Raspberry surface ( ) Cyst(parasite) ( ) Cyst (fluid) ( ) Colour
	Stained smear:
Intest	ines: ( ) Normal ( ) Distended ( fluid ) ( ) Distended (mucoid) ( ) Flaccid ( ) Haemorrhagic ( ) Cysts(parasite) ( ) Tumour
Kidney	Postsrior:  ( ) Normal ( ) Enlarge ( ) Lesions ( ) Single ( ) Multiple ( ) Gritty, white ( ) Cyst (parasite) ( ) Cyst (fluid) ( ) Tumour
	Stained smear:
OTHER:	
N.B.	In the event that a significant number of specimen at any site have abnormalities, contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

DATE: 7/11/92

SAMPLE	NO.: 116	LOCATION: I
SPECIE	s: Ling	CAPTURE METHOD: SeTIME
	E THE: 09 30	EXAMINATION TIME: ///05
GROSS	EXTERNAL EXAMINATION	
Skin:	(**) Normal ( ) ( ) Lesions ( ) ( ) Open ( ) ( ) Blister ( )	Excessive mucus ( ) Abnormal Colour Single ( ) Multiple ( ) Closed Haemorrhagic ( ) Necrotic ( ) Ulcer Tumour ( ) Lost Scales ( ) Abrasions
	Location:	
	Wet mount/smear:	
		( ) Exophthalmia ( ) Cataract ( ) Haemorrhagic ( ) Lens lost ( ) Parasites ( ) Bilateral
Pins:	( ) Normal ( ) Eroded	( ) Frayed ( ) Haemorrhagic
	Wet mount/smear:	(rear dorsal & tan in spire)
Gills:	(X) Normal ( ) Necrotic ( ) Telangiectasia	( ) Pale ( ) Mottled ( ) Haemorrhagic ( ) Excessive mucus ( ) Hyperplasia ( ) Gas emboli ( ) Cysts ( ) Fungus Visible
	Wet amount/smear:	
ROSS 1	INTERNAL EXAMINATION	
	Tissue:	
mībose	( ) Normal ( )	Excessive ( ) Reduced ( ) Petechial Haemorrhagic
Liver:	( ) Normal ( ) ( ) Other	Enlarge ( ) Reduced Colour: ( ) Pale ( ) Mottled
	( ) Lesions: ( ) Si	ingle ( ) Multiple ( ) Tumour Haemorrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen	No.	) Felamed ( ) Reduced ( ) Respicate surface
	( ) Cyst(parasite)	( ) Enlarged ( ) Reduced ( ) Raspberry surface ( ) Cyst (fluid) ( ) Colour
	Stained smear:	
Intesti		
	( ) Normal ( ) Di ( ) Flaccid ( ) Ha	stended (fluid) ( ) Distended (mucoid) Lemorrhagic ( ) Cysts(parasite) ( ) Tumour
Cidney,	Posterior: ( ) Normal ( ) Er ( ) Multiple ( ) Gr ( ) Tumour	nlarge ( ) Lesions ( ) Single ( ) Cyst (parasite) ( ) Cyst (fluid)
	Stained smear:	
THER:		
N.B.		mificant number of specimen at any site have abnormalities, in immediately notify the Study Office. to 422-3055

DATE: 7/11/92

SAMPLE NO.:	LOCATION:
SPECIES: LING	CAPTURE METHOD: SETLINE
CAPTURE TIME: 0930	EXAMINATION TIME: 11.07
GROSS EITERNAL EXAMINATION	
Skin: (X) Normal ( ) Excessive must ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagic ( ) Blister ( ) Tumour	( ) Abnormal Colour ( ) Multiple ( ) Closed ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
Location:	
Wet mount/smear:	
Eyes: (X) Normal ( ) Exophthat ( ) Opaque cornea ( ) Lens los	dmia ( ) Cataract ( ) Haemorrhagic ( ) Parasites ( ) Bilateral
Fins: (X) Normal ( ) Frayed_ ( ) Eroded	( ) Haemorrhagic
Wet mount/smear:	
Gills: (X) Normal ( ) Pale ( ) Necrotic ( ) Excessiv ( ) Telangiectasia ( ) Gas embo ( ) Large Parasites	( ) Mottled ( ) Haemorrhagic e mucus ( ) Hyperplasia li ( ) Cysts ( ) Fungus Visible
Wet amount/smear:	
GROSS INTERNAL EXAMINATION	
Idinore Ticcue:	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
Adipose Tissue:     ( ) Normal ( ) Excessive     ( ) Colour	( ) Cysts ( ) Reduced Colour: ( ) Pale ( ) Mottled
Adipose Tissue:  ( ) Normal ( ) Excessive ( ) Colour  Liver: ( ) Normal ( ) Enlarge ( ) Other Texture: ( ) Lesions: ( ) Single ( ) Mu ( ) Necrotic ( ) Haemorrhagic	( ) Cysts ( ) Reduced Colour: ( ) Pale ( ) Mottled
Adipose Tissue:  ( ) Normal ( ) Excessive ( ) Colour  Liver: ( ) Normal ( ) Enlarge ( ) Other Texture: ( ) Lesions: ( ) Single ( ) Mu ( ) Necrotic ( ) Haemorrhagic	( ) Cysts  ( ) Reduced Colour: ( ) Pale ( ) Mottled  Itiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)
Adipose Tissue:  ( ) Normal ( ) Excessive ( ) Colour  Liver: ( ) Normal ( ) Enlarge ( ) Other Texture:	( ) Cysts  ( ) Reduced Colour: ( ) Pale ( ) Mottled  Itiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)
Adipose Tissue:     ( ) Normal ( ) Excessive     ( ) Colour  Liver: ( ) Normal ( ) Enlarge     ( ) Other Texture:     ( ) Lesions: ( ) Single ( ) Mu     ( ) Necrotic ( ) Haemorrhagic  Spleen:     ( ) Normal ( ) Enlarged     ( ) Cyst(parasite) ( ) Cyst (fl  Stained smear:  Intestines:     ( ) Normal ( ) Distended ( flu     ( ) Flaccid ( ) Haemorrhagic	( ) Cysts  ( ) Reduced Colour: ( ) Pale ( ) Mottled  ltiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)  ( ) Reduced ( ) Raspberry surface uid) ( ) Colour
Adipose Tissue:  ( ) Normal ( ) Excessive ( ) Colour  Liver: ( ) Normal ( ) Enlarge	( ) Cysts  ( ) Reduced Colour: ( ) Pale ( ) Mottled  ltiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)  ( ) Reduced ( ) Raspberry surface  uid) ( ) Colour  id) ( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour

N.B. In the event that a significant number of specimen at any site have abnormalities, and contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

DATE: 7/11/92

SAMPLE	E NO.: 118 LOCA	TION: I	
		JRE METHOD:	SETLINE
	,	DATION TIME:	11:09
GROSS	EXTERNAL EXAMINATION		
Skin:	( ) Normal ( ) Excessive mucus ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagic ( ) Blister ( ) Tumour	( ) Abnormal ( ) Multiple ( ) Necrotic ( ) Lost Sca	Colour  Closed  C ( ) Closed  C ( ) Ulcer  Cles ( ) Abrasions
	Location:		<del></del>
	Wet mount/smear:	· · · · · · · · · · · · · · · · · · ·	
	(≯) Normal ( ) Exophthalmia ( ) Opaque cornea ( ) Lens lost		
Fins:	( X ) Normal ( ) Frayed	( ) Deformed	( ) Haemorrhagic
	Wet mount/smear:		
Gills:	( ) Normal ( ) Pale ( ) Necrotic ( ) Excessive muc ( ) Telangiectasia ( ) Gas emboli ( ) Large Parasites	( ) Mottled us ( ) Cysts ( ) Fungus V	( ) Haemorrhagic ( ) Hyperplasia
	Wet amount/smear:		
GROSS 3	INTERNAL EXAMINATION		
Adipose	e Tissue:		
	( ) Normal ( ) Excessive ( ) : ( ) Colour ( ) (	Reduced ( Cysts	) Perechial Haemorrhagio
Liver:	( ) Normal ( ) Enlarge ( ) : ( ) Other Texture: ( ) Lesions: ( ) Single ( ) Multiple ( ) Necrotic ( ) Haemorrhagic ( ) (	( ) Tumour	
Spleen:	: ( ) Normal ( ) Enlarged ( ) Cyst(parasite) ( ) Cyst (fluid)	( ) Reduced ( ) Colour	( ) Raspoerry surface
	Stained smear:	<del></del>	
Intesti	ines:    ( ) Normal ( ) Distended ( fluid)    ( ) Flaccid ( ) Haemorrhagic	( ) Distended ( ) Cysts(par	d (mucoid) rasite) ( ) Tumour
Kidney,	<pre>, Posterior:   ( ) Normal</pre>	esions Cyst (parasite)	( ) Single ( ) Cyst (fluid)
	Stained smear:		
OTHER:			
N.B.	In the event that a significant number of scontractor is asked to immediately notify Phone: 427-1742 or fab to 422-3055	specimen at any the Study Off	site have abnormalities, lice.

DATE: 7/11/92
LOCATION: II

SAMPLE NO. 1 1/9	LOCATION: I
SPECIES: LING	CAPTURE METHOD: Set 7 Prove
CAPTURE TIME: // 60	EXAMINATION TIME: _// 2
GROSS EXTERNAL EXAMINATION	
Skin: (X) Normal () E () Lesions () S () Open () H () Blister () T	single ( ) Multiple ( ) Closed
Location:	
Wet mount/smear:	
Eyes: (X ) Normal (	) Exophthalmia ( ) Cataract ( ) Haemorrhagic ) Lens lost ( ) Parasites ( ) Bilateral
Fins: ( ) Normal (  ( ) Eroded	) Frayed ( ) Haemorrhagic
Wet mount/smear:	
( ) Necrotic ( ) Telangiectasia (	) Pale ( ) Mottled ( ) Haemorrhagic ) Excessive mucus ( ) Hyperplasia ) Gas emboli ( ) Cysts ( ) Fungus Visible
Wet amount/smear:	
GROSS INTERNAL EXAMINATION	
Adipose Tissue:	xcessive ( ) Reduced ( ) Petecnial Haemorrhagic
( ) Other Sin	nlarge ( ) Reduced Colour: ( ) Pale ( ) Mottled Texture: gle ( ) Multiple ( ) Tumour aemorrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen: ( ) Normal ( ) Cyst(parasite) (	) Enlarged ( ) Reduced ( ) Raspberry surface ) Cyst (fluid) ( ) Colour
Stained smear:	
Intestines:     ( ) Normal ( ) Dis	tended (fluid) ( ) Distended (mucoid) morrhagic ( ) Cysts(parasite) ( ) Tumour
Ridney, Posterior: ( ) Normal ( ) Enl ( ) Multiple ( ) Gri ( ) Tumour	arge ( ) Lesions ( ) Single tty, white ( ) Cyst (parasite) ( ) Cyst (fluid)
Stained smear:	
OTHER:	ificant number of specimen at any site have abnormalizies.

N.B. In the event that a significant number of specimen at any site have abnormalities, to contractor is asked to immediately notify the Study Office.

Phone: 427-1742 or fab to 422-3055

DATE: 7/11/92

SAMPLE NO.: /20	LOCATION:
	CAPTURE METHOD: SET // Ne
	EXAMINATION TIME: // /4
GROSS EXTERNAL EXAMINATION	
Skin: (X) Normal ( ) Excessive must ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagic ( ) Blister ( ) Tumour	( ) Abnormal Colour ( ) Multiple ( ) Closed ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
Location:	
Wet mount/smear:	
Eyes: ( ) Normal ( ) Exophtha ( ) Dens los	lmia ( ) Cataract ( ) Haemorrhagic t ( ) Parasites ( ) Bilateral
Fins: (x) Normal ( ) Frayed	( ) Haemorrhagic
Wet mount/smear:	
Gills: () Normal () Pale () Necrotic () Excessiv () Telangiectasia () Gas embo () Large Parasites	( ) Mottled ( ) Haemorrhagic e mucus ( ) Hyperplasia li ( ) Cysts ( ) Fungus Visible
Wet amount/smear:	
GROSS INTERNAL EXAMINATION	
Adipose Tissue:	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
( ) Other Texture: ( ) Lesions: ( ) Single ( ) Mu	( ) Reduced Colour: ( ) Pale ( ) Mottled  Itiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)
<pre>Spleen:     ( ) Normal</pre>	( ) Reduced ( ) Raspberry surface uid) ( ) Colour
Stained smear:	
<pre>Intestines:     ( ) Normal</pre>	id) ( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour
Ridney, Posterior:  ( ) Normal ( ) Enlarge ( ) Multiple ( ) Gritty, white ( ) Tumour	( ) Lesions ( ) Single ( ) Cyst (parasite) ( ) Cyst (fluid)
Stained smear:	
OTHER:	
N.B. In the event that a significant number contractor is asked to immediately Phone: 427-1742 or fab to 422-3055	er of specimen at any site have abnormalities, notify the Study Office.

## NORTHERN RIVER BASINS STUDY EXAMINATION SHEETS

GROSS PATHOLOGY

	DATE: 179792
SAMPLE NO.: 121	LOCATION: I 2
SPECIES: Ling	CAPTURE METHOD: 587 / 100
CAPTURE TIME: 09:30	EXAMINATION TIME: // 18
GROSS EXTERNAL EXAMINATION	
Skin: (X) Normal ( ) Excessive must ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagic ( ) Blister ( ) Tumour	( ) Abnormal Colour ( ) Multiple ( ) Closed ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
Location:	
Wet mount/smear:	
Eyes: (X) Normal ( ) Exophthat ( ) Opaque cornea ( ) Lens los	
Fins: () Normal () Frayed_ () Eroded	( ) Haemorrhagic
Wet mount/smear:	
Gills: ( X) Normal ( ) Pale ( ) Excessive ( ) Telangiectasia ( ) Gas embode ( ) Large Parasites	( ) Mottled ( ) Haemorrhagic re mucus ( ) Hyperplasia bli ( ) Cysts ( ) Fungus Visible
Wet amount/smear:	
GROSS INTERNAL EXAMINATION	
Adipose Tissue:  ( ) Normal ( ) Excessive ( ) Colour	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
( ) Other Texture: ( ) Lesions: ( ) Single ( ) Mu	( ) Reduced Colour: ( ) Pale ( ) Mottled  litiple ( ) Tumour
<pre>Spleen:     ( ) Normal</pre>	( ) Reduced ( ) Raspperry surface uid) ( ) Colour
Stained smear:	
<pre>Intestines:     ( ) Normal ( ) Distended ( flu     ( ) Flaccid ( ) Haemorrhagic</pre>	did) ( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour
<pre>Kidney, Postsrior:     ( ) Normal ( ) Enlarge     ( ) Multiple ( ) Gritty, white     ( ) Tumour</pre>	( ) Lesions ( ) Single ( ) Cyst (parasite) ( ) Cyst (fluid)
Stained smear:	

N.B. In the event that a significant number of specimen at any site have abnormalities, the contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

	DATE: 7/11/92
SAMPLE	NO.: 122 LOCATION: I2
	S: LING CAPTURE NETHOD: SET // NE
	E TIME: 09:30 EXAMINATION TIME: // 21
GROSS	external examination
Skin:	(*) Normal ( ) Excessive mucus ( ) Abnormal Colour ( ) Lesions ( ) Single ( ) Multiple ( ) Closec ( ) Open ( ) Haemorrhagic ( ) Necrotic ( ) Ulcer ( ) Blister ( ) Tumour ( ) Lost Scales ( ) Abrasions
	Location:
	Wet mount/smear:
	( ) Normal ( ) Exophthalmia ( ) Cataract ( ) Haemorrhagic ( ) Opaque cornea ( ) Lens lost ( ) Parasites ( ) Bilateral
Fins:	( ) Normal ( ) Frayed ( ) Haemorrhagic ( ) Haemorrhagic ( ) Deformed
	Wet mount/smear:
Gills:	( ) Normal ( ) Pale ( ) Mottled ( ) Haemorrhagic ( ) Necrotic ( ) Excessive mucus ( ) Hyperplasia ( ) Telangiectasia ( ) Gas empoli ( ) Cysts ( ) Large Parasites ( ) Fungus Visible
	Wet amount/smear:
GROSS 1	NTERNAL EXAMINATION
Adipose	Tissue: ( ) Normal ( ) Excessive ( ) Reduced ( ) Petechial Haemorrhagic ( ) Colour ( ) Cysts
Liver:	( ) Normal ( ) Enlarge ( ) Reduced Colour: ( ) Pale ( ) Mottled ( ) Other Texture: ( ) Lesions: ( ) Single ( ) Multiple ( ) Tumour ( ) Necrotic ( ) Haemorrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen:	( ) Normal ( ) Enlarged ( ) Reduced ( ) Raspberry surface ( ) Cyst(parasite) ( ) Cyst(fluid) ( ) Colour
Spleen:	
Spleen:	( ) Normal ( ) Enlarged ( ) Reduced ( ) Raspberry surface ( ) Cyst(parasite) ( ) Cyst (fluid) ( ) Colour
Intesti	( ) Normal ( ) Enlarged ( ) Reduced ( ) Raspberry surface ( ) Cyst(parasite) ( ) Cyst (fluid) ( ) Colour

N.B. In the event that a significant number of specimen at any site have abnormalities, contractor is asked to immediately notify the Study Office.

Phone: 427-1742 or fab to 422-3055

DATE: 7/11/92

SAIPLE	No.: 123	LOCATION:
SPECIE	s: Ling	CAPTURE METHOD: Se7 / 2
	E TIME: 10 15	
GROSS	EXTERNAL EXAMINATION	
Skin:	( > Normal ( ) ( ) Lesions ( ) ( ) Open ( ) ( ) Blister ( )	Excessive mucus ( ) Abnormal Colour Single ( ) Multiple ( ) Closec Haemorrhagic ( ) Necrotic ( ) Ulcer Tumour ( ) Lost Scales ( ) Abrasions
	Location:	
	Wet mount/smear:	
Eyes:		( ) Exophthalmia ( ) Cataract ( ) Haemorrhagic ( ) Lens lost ( ) Parasites ( ) Bilateral
Fins:	( X) Normal ( ) Eroded	( ) Frayed ( ) Haemorrhagic
	Wet mount/smear:	
Gills:	(X) Normal (Necrotic Telangiectasia (Large Parasites _	( ) Pale ( ) Mottled ( ) Haemorthagic ( ) Excessive mucus ( ) Hyperplasia ( ) Gas emboli ( ) Cysts ( ) Fungus Visible
	Wet amount/smear:	
GROSS 1	INTERNAL EXAMINATION	
Adipose	Tissue: ( ) Normal ( ) ( ) Colour	Excessive ( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
Liver:	( ) Other ( ) Si	Enlarge ( ) Reduced Colour: ( ) Pale ( ) Mottled Texture:  ngle ( ) Multiple ( ) Tumour Haemorrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen	( ) Normal ( ) Cyst(parasite)	( ) Enlarged ( ) Reduced ( ) Raspberry surface ( ) Cyst (fluid) ( ) Colour
	Stained smear:	
Intesti	ines: ( ) Normal ( ) Di ( ) Flaccid ( ) Ha	stended (fluid) ( ) Distended (mucoid) emorrhagic ( ) Cysts(parasite) ( ) Tumour
Kidney,	, Posterior: ( ) Normal ( ) En ( ) Multiple ( ) Gr ( ) Tumour	clarge ( ) Lesions ( ) Single (:itty, white ( ) Cyst (parasite) ( ) Cyst (fluid)
	Stained smear:	
OTHER:		
N.B.	In the event that a signontractor is asked to Phone: 427-1742 or fab	nificant number of specimen at any site have abnormalities, in immediately notify the Study Office. to 422-3055

DATE: 7/11/92

SAMPLE NO.: 124	LOCATION: <u>I3</u>
SPECIES: Ling	CAPTURE METHOD: SET!, WE
CAPTURE TIME: 10 15	EXAMINATION TIME: 11:27
GROSS EXTERNAL EXAMINATION	
Skin: ( X ) Normal ( ) Excessive many ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagical ( ) Blister ( ) Tumour	ucus ( ) Abnormal Colour ( ) Closed ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
Location:	
Wet mount/smear:	
Eyes: ( ) Normal ( ) Exophth ( ) Opaque cornea ( ) Lens lo	nalmia ( ) Cataract ( ) Haemorrhagic ost ( ) Parasites ( ) Bilateral
Fins: ( ) Normal ( ) Frayed_	( ) Haemorrhagic
Wet mount/smear:	
Gills: (X) Normal ( ) Pale ( ) Necrotic ( ) Excessi ( ) Telangiectasia ( ) Gas emb ( ) Large Parasites	( ) Mottled ( ) Haemorrhagic ve mucus ( ) Hyperplasia ooli ( ) Cysts ( ) Fungus Visible
Wet amount/smear:	
GROSS INTERNAL EXAMINATION	
Adipose Tissue:	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
Adipose Tissue:     ( ) Normal ( ) Excessive     ( ) Colour  Liver: ( ) Normal ( ) Enlarge     ( ) Other Texture:     ( ) Lesions: ( ) Single ( ) M	( ) Cysts  ( ) Reduced Colour: ( ) Pale ( ) Mottled
Adipose Tissue:  ( ) Normal ( ) Excessive ( ) Colour  Liver: ( ) Normal ( ) Enlarge	( ) Cysts  ( ) Reduced Colour: ( ) Pale ( ) Mottled
Adipose Tissue:  ( ) Normal ( ) Excessive ( ) Colour  Liver: ( ) Normal ( ) Enlarge	( ) Cysts  ( ) Reduced Colour: ( ) Pale ( ) Mottled (ultiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)
Adipose Tissue:  ( ) Normal ( ) Excessive ( ) Colour  Liver: ( ) Normal ( ) Enlarge ( ) Other Texture:	( ) Cysts  ( ) Reduced Colour: ( ) Pale ( ) Mottled (ultiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)
Adipose Tissue:  ( ) Normal ( ) Excessive ( ) Colour  Liver: ( ) Normal ( ) Enlarge ( ) Other Texture: ( ) Lesions: ( ) Single ( ) M ( ) Necrotic ( ) Haemorrhagic  Spleen: ( ) Normal ( ) Enlarge ( ) Cyst(parasite) ( ) Cyst (f  Stained smear:  Intestines: ( ) Normal ( ) Distended ( fl ( ) Flaccid ( ) Haemorrhagic  Kidney, Posterior:	( ) Cysts  ( ) Reduced Colour: ( ) Pale ( ) Mottled Sultiple ( ) Tumour  ( ) Cyst (parasite) ( ) Cyst (Fluid)  d ( ) Reduced ( ) Raspberry surface luid) ( ) Colour
Adipose Tissue:  ( ) Normal ( ) Excessive ( ) Colour  Liver: ( ) Normal ( ) Enlarge ( ) Other Texture: ( ) Lesions: ( ) Single ( ) M ( ) Necrotic ( ) Haemorrhagic  Spleen: ( ) Normal ( ) Enlarge ( ) Cyst(parasite) ( ) Cyst (f  Stained smear:  Intestines: ( ) Normal ( ) Distended ( fl ( ) Flaccid ( ) Haemorrhagic  Kidney, Posterior: ( ) Normal ( ) Enlarge ( ) Multiple ( ) Gritty, white	( ) Cysts  ( ) Reduced Colour: ( ) Pale ( ) Mottled Sultiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)  d
Adipose Tissue:  ( ) Normal ( ) Excessive ( ) Colour  Liver: ( ) Normal ( ) Enlarge ( ) Other	( ) Cysts  ( ) Reduced Colour: ( ) Pale ( ) Mottled Sultiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)  d

contractor is asked to immediately notify the Study Office.

Phone: 427-1742 or fab to 422-3055

DATE: 7/11/92

4.0	
SAMPLE NO.: /25	LOCATION:
SPECIES: Line	CAPTURE METHOD: SET //we
CAPTURE TIME: 10 15	EXAMINATION TIME: 11.29
GROSS EXTERNAL EXAMINATION	
Skin: (<) Normal ( )	Excessive mucus ( ) Abnormal Colour Single ( ) Multiple ( ) Closec Haemorrhagic ( ) Necrotic ( ) Ulcer Tumour ( ) Lost Scales ( ) Abrasions
Location:	
Wet mount/smear:	
	( ) Exophthalmia ( ) Cataract ( ) Haemorrhagic ( ) Lens lost ( ) Parasites ( ) Bilateral
Pins: ( ) Normal ( ) Eroded	( ) Frayed ( ) Haemorrhagic
Wet mount/smear:	
( ) Large Parasites _	( ) Pale ( ) Mottled ( ) Haemorrhagic ( ) Excessive mucus ( ) Hyperplasia ( ) Gas emboli ( ) Cysts ( ) Fungus Visible
GROSS INTERNAL EXAMINATION	
Adipose Tissue: ( ) Normal ( ) ( ) Colour	Excessive ( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
( ) Other ( ) Lesions: ( ) S:	Enlarge ( ) Reduced Colour: ( ) Pale ( ) Mottled Texture: ingle ( ) Multiple ( ) Tumour Haemorrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid)
<pre>Spleen:</pre>	( ) Enlarged ( ) Reduced ( ) Raspberry surface ( ) Cyst (fluid) ( ) Colour
Stained smear:	
<pre>Intestines:     ( ) Normal ( ) D:     ( ) Flaccid ( ) Ha</pre>	istended ( fluid) ( ) Distended (mucoid) aemorrhagic ( ) Cysts(parasite) ( ) Tumour
<pre>Ridney, Posterior:     ( ) Normal ( ) En     ( ) Multiple ( ) Gn     ( ) Tumour</pre>	nlarge ( ) Lesions ( ) Single ritty, white ( ) Cyst (parasite) ( ) Cyst (fluid)
Stained smear:	
OTHER:	

N.B. In the event that a significant number of specimen at any site have abnormalities, the contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

DATE: 7/11/92

MPLE	No.: <u>/2</u>	6	LOCATION: 73	
ecii	s: <u></u>	Mg	CAPTURE METHOD: SET/in	10
	E TIME: 10		EXAMINATION TIME: 1/7.32	
DSS	EXTERNAL EXAM	INATION		
in:	( X ) Normal ( ) Lesions ( ) Open ( ) Blister	( )	Excessive mucus ( ) Abnormal Colour Single ( ) Multiple ( ) Haemorrhagic ( ) Necrotic ( ) Tumour ( ) Lost Scales ( )	Closec Ulcer Abrasions
	Wet mount/sm	ear:		
s:	( ★) Normal ( ) Opaque	cornea	( ) Exophthalmia ( ) Cataract ( ) Hae ( ) Lens lost ( ) Parasites ( ) Bil	morrhagic ateral
is:	(X) Normal (X) Eroded		( ) Frayed ( ) Deformed ( ) Hae	morrhagic
	Wet mount/sme			
ls:	( ) Telangie	ectasia	( ) Pale ( ) Mottled ( ) Hae ( ) Excessive mucus ( ) Hyp ( ) Gas emboli ( ) Cysts ( ) Fungus Visible	morrhagic erplasia
	Wet amount/si	mear:		
SS I	Wet amount/si INTERNAL EXAM			
	INTERNAL EXAM: Tissue: ( ) Normal	INATION ( )	Excessive ( ) Reduced ( ) Petech ( ) Cysts	ial Haemorrhagi
pose	INTERNAL EXAM: Tissue: ( ) Normal ( ) Colour ( ) Normal ( ) Other ( ) Lesions:	( ) ( ) ( )	Excessive ( ) Reduced ( ) Petech ( ) Cysts  Enlarge ( ) Reduced Colour: ( ) Page 1	ale ( ) Mottle
pose	INTERNAL EXAMINATION OF THE PROPERTY OF THE PR	( ) ( ) ( ) ( )	Excessive ( ) Reduced ( ) Petech ( ) Cysts  Enlarge ( ) Reduced Colour: ( ) P. Texture:	ale ( ) Mottle
pose	INTERNAL EXAMINATION OF THE PROPERTY OF THE PR	( ) ( ) ( ) ( ) ( ) ( ) ( )	Excessive ( ) Reduced ( ) Petech ( ) Cysts  Enlarge ( ) Reduced Colour: ( ) Potent ( ) Texture:  Ingle ( ) Multiple ( ) Tumour  Haemorrhagic ( ) Cyst (parasite) ( ) Cyst  ( ) Enlarged ( ) Reduced ( ) Rasi ( ) Cyst (fluid) ( ) Colour	ale ( ) Mottle
pose er:	INTERNAL EXAMINATION OF THE PROPERTY OF THE PR	( ) ( ) ( ) ( ) ( ) ( ) ( )	Excessive ( ) Reduced ( ) Petech ( ) Cysts  Enlarge ( ) Reduced Colour: ( ) Potent ( ) Texture:  Ingle ( ) Multiple ( ) Tumour  Haemorrhagic ( ) Cyst (parasite) ( ) Cyst  ( ) Enlarged ( ) Reduced ( ) Rasi ( ) Cyst (fluid) ( ) Colour	ale ( ) Mottle t (Fluid) pberry surface
pose er:	INTERNAL EXAM:  Tissue:  ( ) Normal ( ) Colour  ( ) Normal ( ) Other ( ) Lesions: ( ) Necrotic  ( ) Normal ( ) Cyst(par  Stained smear  Ines: ( ) Normal ( ) Flaccid	( ) Sicasite)  ( ) Di ( ) Ha	Excessive ( ) Reduced ( ) Petech ( ) Cysts  Enlarge ( ) Reduced Colour: ( ) Property of the colour ( ) Property of the colour ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (parasite) ( ) Cyst ( ) Enlarged ( ) Reduced ( ) Rasite ( ) Cyst (fluid) ( ) Colour ( ) Colour ( ) Cyst (fluid) ( ) Cyst (	ale ( ) Mottle t (Fluid) pberry surface - ( ) Tumour
pose er:	INTERNAL EXAMINATION OF THE PROPERTY OF THE PR	( ) Si ( ) Si ( ) Di ( ) Ha ( ) En	Excessive ( ) Reduced ( ) Petech ( ) Cysts  Enlarge ( ) Reduced Colour: ( ) Property of the colour: ( ) Property of the colour: ( ) Property of the colour ( ) Cyst (parasite) ( ) Cyst (parasite) ( ) Cyst ( ) Enlarged ( ) Reduced ( ) Rass ( ) Cyst (fluid) ( ) Colour ( ) Cyst (fluid) ( ) Colour ( ) Cyst (parasite) ( ) Cysts (parasite)	ale ( ) Mottle t (Fluid) pberry surface - ( ) Tumour

N.B.

Phone: 427-1742 or fab to 422-3055

		DATE: 7/11/92
RMPLE	E NO.: 127	LOCATION: I 3
PECIE	s: <u>Ling</u>	CAPTURE METHOD: SET /INE
APTUR	RE TIME: 10 15	EXAMINATION TIME:
	EXTERNAL EXAMINATION	
kin:	<pre>(★) Normal ( ) Excessive ( ) Lesions ( ) Single ( ) Open ( ) Haemorrha ( ) Blister ( ) Tumour</pre>	ve mucus ( ) Abnormal Colour ( ) Multiple ( ) Closed ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
	Location:	
	Wet mount/smear:	
		ophthalmia ( ) Cataract ( ) Haemorrhagic as lost ( ) Parasites ( ) Bilateral
ins:	( ×) Normal ( ) Fray	yed( ) Haemorrhagic
ills:	( ) Large Parasites	e ( ) Mottled ( ) Haemorrhagic ( ) Hyperplasia ( ) Cysts ( ) Fungus Visible
	Wet amount/smear:	
lipos	( ) Colour ( ) Enlarge   ( ) Other Texture: ( ) Lesions: ( ) Single (	( ) Reduced Colour: (   Pale ( ) Mottle
	( ) Necrotic ( ) Haemorrha	agic ( ) Cyst (parasite) ( ) Cyst (Fluid)
pleen:	( ) Normal ( ) Enla ( ) Cyst(parasite) ( ) Cyst	arged ( ) Reduced ( ) Raspberry surface t (fluid) ( ) Colour
	Stained smear:	
test:	ines: ( ) Normal ( ) Distended ( ( ) Flaccid ( ) Haemorrhagi	( fluid) ( ) Distended (mucoid) ric ( ) Cysts(parasite) ( ) Tumour
idney	<pre>( ) Posterior:   ( ) Normal</pre>	( ) Lesions ( ) Single lite ( ) Cyst (parasite) ( ) Cyst (fluid)
	Stained smear:	<del></del>
THER:		
.в.	In the event that a significant	number of specimen at any site have abnormalities,

contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

DATE: 7/11/92

		TION:
SPECIE	CAPTU	RE METHOD: SET / NE
	RE TIME: 10 15 EXAMI	NATION TIME: // 37
GROSS	EXTERNAL EXAMINATION	
Skin:	(X) Normal ( ) Excessive mucus ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagic ( ) Blister ( ) Tumour	( ) Abnormal Colour ( ) Multiple ( ) Closed ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
	Location:	
	Wet mount/smear:	· · · · · · · · · · · · · · · · · · ·
Eyes:	(★) Normal ( ) Exophthalmia ( ) Opaque cornea ( ) Lens lost	( ) Cataract ( ) Haemorrhagic ( ) Parasites ( ) Bilateral
Pins:	(★) Normal ( ) Frayed	( ) Haemorrhagic
	Wet mount/smear:	
Gills:	( ★ ) Normal ( ) Pale ( ) Necrotic ( ) Excessive mucu ( ) Telangiectasia ( ) Gas emboli ( ) Large Parasites	( ) Mottled ( ) Haemorrhagic s ( ) Hyperplasia ( ) Cysts ( ) Fungus Visible
	Wet amount/smear:	
GROSS :	INTERNAL EXAMINATION	
Adipose	Tissue: ( ) Normal ( ) Excessive ( ) R ( ) Colour ( ) C	educed ( ) Petechial Haemorrhag ysts
Liver:	( ) Normal ( ) Enlarge ( ) R ( ) Other Texture: ( ) Lesions: ( ) Single ( ) Multiple ( ) Necrotic ( ) Haemorrhagic ( ) C	( ) Tumour
Spleen:	( ) Normal ( ) Enlarged ( ) Cyst(parasite) ( ) Cyst (fluid)	( ) Reduced ( ) Raspberry surface ( ) Colour
	Stained smear:	
Intesti	( ) Normal ( ) Distended ( fluid) ( ) Flaccid ( ) Haemorrhagic	( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour
Kidney,	<pre>( ) Posterior:   ( ) Normal ( ) Enlarge ( ) L   ( ) Multiple ( ) Gritty, white ( ) C   ( ) Tumour</pre>	esions ( ) Single yst (parasite) ( ) Cyst (fluid)
	Stained smear:	
OTHER:		
N.B.	In the event that a significant number of s contractor is asked to immediately notify	

Phone: 427-1742 or fab to 422-3055

### NORTHERN RIVER BASINS STUDY EXAMINATION SHEETS

GROSS PATHOLOGY

	DATE: T/////
MPLE NO.: 129	LOCATION:
ECIES: LING	CAPTURE METHOD: 5-7/126
PTURE TIME: 10.30	EXAMINATION TIME: // Yo
OSS EXTERNAL EXAMINATION	
in: (X) Normal ( ) Excessive ( ) Lesions ( ) Single ( ) Open ( ) Haemorrha ( ) Blister ( ) Tumour	e mucus ( ) Abnormal Colour ( ) Multiple ( ) Closed .gic ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
Location:	
Wet mount/smear:	
	hthalmia ( ) Cataract ( ) Haemorrhagic lost ( ) Parasites ( ) Bilateral
s: (*) Normal ( ) Fray	ed( ) Haemorrhagic
Wet mount/smear:	( ) Mottled ( ) Haemorrhagic
.13: (X) NOTINGE	ssive mucus ( ) Hyperplasia
( ) Necrotic ( ) Exce. ( ) Telangiectasia ( ) Gas. ( ) Large Parasites	emboli ( ) Cysts ( ) Fungus Visible
( ) Necrotic ( ) Excellent ( ) Telangiectasia ( ) Gas ( ) Large Parasites	emboli ( ) Cysts ( ) Fungus Visible
Wet amount/smear:	emboli ( ) Cysts ( ) Fungus Visible
Wet amount/smear:  DSS INTERNAL EXAMINATION	( ) Reduced ( ) Petechial Haemorrha
Wet amount/smear:  OSS INTERNAL EXAMINATION  Dose Tissue:  ( ) Normal ( ) Excessive ( ) Colour  OTHER ( ) Enlarge ( ) Other Texture: ( ) Lesions: ( ) Single (	( ) Reduced ( ) Petechial Haemorrhad ( ) Cysts ( ) Reduced Colour: ( ) Pale ( ) Mott.
Wet amount/smear:  SS INTERNAL EXAMINATION  Pose Tissue:	( ) Reduced ( ) Petechial Haemorrhad ( ) Cysts ( ) Reduced Colour: ( ) Pale ( ) Mott.
Wet amount/smear:  OSS INTERNAL EXAMINATION  Dose Tissue:  ( ) Normal ( ) Excessive  ( ) Colour  Other Texture: ( ) Lesions: ( ) Single ( ) Necrotic ( ) Haemorrhad	( ) Reduced ( ) Petechial Haemorrhad ( ) Cysts ( ) Reduced Colour: ( ) Pale ( ) Mott. ) Multiple ( ) Tumour gic ( ) Cyst (parasite) ( ) Cyst (Fluid)
Wet amount/smear:  OSS INTERNAL EXAMINATION  Dose Tissue:  ( ) Normal ( ) Excessive  ( ) Colour  Other Texture:  ( ) Lesions: ( ) Single (  ( ) Necrotic ( ) Haemorrhad  Descent:  ( ) Normal ( ) Enlar  ( ) Cyst(parasite) ( ) Cyst  Stained smear:	( ) Reduced ( ) Petechial Haemorrhad
Wet amount/smear:  OSS INTERNAL EXAMINATION  Lipose Tissue:  ( ) Normal ( ) Excessive ( ) Colour  Cer: ( ) Normal ( ) Enlarge ( ) Other Texture: ( ) Lesions: ( ) Single ( ) ( ) Necrotic ( ) Haemorrhad  Leen: ( ) Normal ( ) Enlarge ( ) Cyst (parasite) ( ) Cyst  Stained smear:	( ) Reduced ( ) Petechial Haemorrhad
Wet amount/smear:  OSS INTERNAL EXAMINATION  Dose Tissue:  (	( ) Reduced ( ) Petechial Haemorrhad
ipose Tissue: ( ) Normal ( ) Excessive ( ) Colour  /*er: ( ) Normal ( ) Enlarge ( ) Other Texture: ( ) Lesions: ( ) Single ( ) ( ) Necrotic ( ) Haemorrhad ( ) Cyst(parasite) ( ) Cyst  Stained smear:  ( ) Normal ( ) Enlarge ( ) Stained smear:  ( ) Normal ( ) Distended ( ) Flaccid ( ) Haemorrhagid  dney, Postsrior: ( ) Normal ( ) Enlarge ( ) Multiple ( ) Gritty, which	( ) Reduced ( ) Petechial Haemorrhad

N.B. In the event that a significant number of specimen at any site have abnormalities, the contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

DATE: 9/11/92

SAMPLE	NO.: 130	LOCATION: 5 /
SPECIES	LING	CAPTURE METHOD: SET /, WE
	TIME: 10.45	
GROSS E	CERNAL EXAMINATION	
Skin:	(*) Normal ( ) ( ) Lesions ( ) ( ) Open ( ) ( ) 3lister ( )	Excessive mucus ( ) Abnormal Colour Single ( ) Multiple ( ) Closec Haemorrhagic ( ) Necrotic ( ) Ulcer Tumour ( ) Lost Scales ( ) Abrasions
I	Location:	
W	Wet mount/smear:	
Eyes: (	X) Normal ) Opaque cornea	( ) Exophthalmia ( ) Cataract ( ) Haemorrhagic ( ) Lens lost ( ) Parasites ( ) Bilateral
Pins: (	X) Normal ) Eroded	( ) Frayed ( ) Haemorrhagic
W	et mount/smear:	
<b>Gills:</b> ( ( (	<pre>Normal Necrotic Telangiectasia Large Parasites _</pre>	( ) Pale ( ) Mottled ( ) Haemorrhagic ( ) Excessive mucus ( ) Hyperplasia ( ) Gas emboli ( ) Cysts ( ) Fungus Visible
W	et amount/smear:	
GROSS IN	TERNAL EXAMINATION	
Adipose (	) Normal ( )	Excessive ( ) Reduced ( ) Petecnial Haemorrhagic
(	) Lesions: ( ) Si	Enlarge ( ) Reduced Colour: ( ) Pale ( ) Mottled Texture: ngle ( ) Multiple ( ) Tumour Haemorrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen: (	) Normal ) Cyst(parasite)	( ) Enlarged ( ) Reduced ( ) Raspberry surface ( ) Cyst (fluid) ( ) Colour
S	tained smear:	
Intestin ( (	es: ) Normal ( ) Di ) Flaccid ( ) Ha	stended (fluid) ( ) Distended (mucoid) emorrhagic ( ) Cysts(parasite) ( ) Tumour
(	Posterior: ) Normal ( ) En ) Multiple ( ) Gr ) Tumour	large ( ) Lesions ( ) Single itty, white ( ) Cyst (parasite) ( ) Cyst (fluid)
s	tained smear:	
OTHER: _		
N.B. I	n the event that a sig	nificant number of specimen at any site have abnormalities,

N.B. In the event that a significant number of specimen at any site have abnormalities, contractor is asked to immediately notify the Study Office.
Phone: 427-1742 or fab to 422-3055

SAMPLE NO.:	LOCATION:
SPECIES: Ling	CAPTURE METHOD: SCT /INC
CAPTURE TIME: 10 45	EXAMINATION TIME: _// 35
GROSS EXTERNAL EXAMINATION	
Skin: ( X) Normal ( ) Excessive mu ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagic ( ) Blister ( ) Tumour	( ) Multiple ( ) Closec ( ) Necrotic ( ) Ulcer
Location:	
Wet mount/smear:	
Eyes: (X) Normal ( ) Exophthat ( ) Opaque cornea ( ) Lens los	
Fins: (×) Normal ( ) Frayed	( ) Haemorrhagic
Wet mount/smear:	
Gills: ( ) Normal ( ) Pale ( ) Necrotic ( ) Excessive ( ) Telangiectasia ( ) Gas embode ( ) Large Parasites	( ) Mottled ( ) Haemorrhagic ve mucus ( ) Hyperplasia oli ( ) Cysts ( ) Fungus Visible
Wet amount/smear:	
GROSS INTERNAL EXAMINATION	
Adipose Tissue: ( ) Normal ( ) Excessive ( ) Colour	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
( ) Other Texture: ( ) Lesions: ( ) Single ( ) Mu	( ) Reduced Colour: ( ) Pale ( ) Mottled litiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen:     ( ) Normal ( ) Enlarged     ( ) Cyst(parasite) ( ) Cyst (fl	d ( ) Reduced ( ) Raspberry surface Luid) ( ) Colour
Stained smear:	
<pre>Intestines:     ( ) Normal ( ) Distended ( flu     ( ) Flaccid ( ) Haemorrhagic</pre>	nid) ( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour
<pre>Kidney, Posterior:     ( ) Normal ( ) Enlarge     ( ) Multiple ( ) Gritty, white     ( ) Tumour</pre>	( ) Lesions ( ) Single ( ) Cyst (parasite) ( ) Cyst (fluid)
Stained smear:	
OTHER:	
N.B. In the event that a significant numb contractor is asked to immediately phone: 427-1742 or fab to 422-3055	er of specimen at any site have abnormalities, the notify the Study Office.

DATE: 9/11/92

MPLE	NO.:	LOCATION:
ecie	s: Ling	CAPTURE METHOD: SeT/ine
	E TIME: _/0:/5	
oss	ETCORRNAL EXAMINATI	ж
in:	<pre>(X ) Normal ( ) Lesions ( ) Open ( ) Blister</pre>	( ) Excessive mucus ( ) Abnormal Colour ( ) Single ( ) Multiple ( ) Closed ( ) Haemorrhagic ( ) Necrotic ( ) Ulcer ( ) Tumour ( ) Lost Scales ( ) Abrasions
	Location:	
	Wet mount/smear: _	
s:	(×) Normal ( ) Opaque cornes	( ) Exophthalmia ( ) Cataract ( ) Haemorrhagic ( ) Lens lost ( ) Parasites ( ) Bilateral
ıs:	(×) Normal ( ) Eroded	( ) Frayed ( ) Haemorrhagic
	Wet mount/smear: _	
ls:	<pre>(X) Normal ( ) Necrotic ( ) Telangiectasi ( ) Large Parasit</pre>	( ) Pale ( ) Mottled ( ) Haemorrhagic ( ) Excessive mucus ( ) Hyperplasia a ( ) Gas emboli ( ) Cysts es ( ) Fungus Visible
	Wet amount/smear:	
SS I	INTERNAL EXAMINATIO	N
pose	Tissue: ( ) Normal ( ( ) Colour	) Excessive ( ) Reduced ( ) Petechial Haemorrhag
er:	( ) Other (	) Enlarge ( ) Reduced Colour: ( ) Pale ( ) Mottle Texture: ) Single ( ) Multiple ( ) Tumour ) Haemorrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid)
een:	( ) Normal ( ) Cyst(parasite	( ) Enlarged ( ) Reduced ( ) Raspberry surface ) ( ) Cyst (fluid) ( ) Colour
	Stained smear:	
esti	nes: ( ) Normal ( ( ) Flaccid (	) Distended (fluid) ( ) Distended (mucoid) ) Haemorrhagic ( ) Cysts(parasite) ( ) Tumour
ney,	Posterior:	) Enlarge ( ) Lesions ( ) Single ) Gritty, white ( ) Cyst (parasite) ( ) Cyst (fluid)
	Stained smear:	
ER:		
er:		significant number of specimen at any site have abnormalitied to immediately notify the Study Office.  fab to 422-3055

DATE: 9/11/92

SAMPLE NO.: /33	LOCATION: 5 /
SPECIES: LING	CAPTURE NETHOD: Se7/inc
CAPTURE TIME: 10:15	EXAMINATION TIME: 11.39
GROSS EXTERNAL EXAMINATION	
Skin: ( ) Normal ( ) Excessive mu ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagic ( ) Blister ( ) Tumour	Cus (
Location: 1 Black dot Let	7 5.de)
Wet mount/smear:	
Eyes: ( ) Normal ( ) Exophtha (×) Opaque corned(2007)( ) Lens los	almia ( ) Cataract ( ) Haemorrhagic st ( ) Parasites ( ) Bilateral
Fins: ( X ) Normal ( ) Frayed	( ) Haemorrhagic
Wet mount/smear:	
Gills: ( ) Normal ( ) Pale ( ) Necrotic ( ) Excessive ( ) Telangiectasia ( ) Gas embode ( ) Large Parasites	oli ( ) Cysts ( ) Ayperplasia
- /	
Wet amount/smear:	
GROSS INTERNAL EXAMINATION	
GROSS INTERNAL EXAMINATION	( ) Reduced ( ) Petechial Haemorrhagic
GROSS INTERNAL EXAMINATION  Adipose Tissue:	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts ( ) Reduced Colour: ( ) Pale ( ) Mottled
GROSS INTERNAL EXAMINATION  Adipose Tissue:	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts ( ) Reduced Colour: ( ) Pale ( ) Mottled
GROSS INTERNAL EXAMINATION  Adipose Tissue:	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts  ( ) Reduced Colour: ( ) Pale ( ) Mottled  ( ) Cyst (parasite) ( ) Cyst (Fluid)  ( ) Reduced ( ) Raspberry surface ( uid) ( ) Colour
GROSS INTERNAL EXAMINATION  Adipose Tissue:	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts ( ) Reduced Colour: ( ) Pale ( ) Mottled (ltiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)
GROSS INTERNAL EXAMINATION  Adipose Tissue:	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts  ( ) Reduced Colour: ( ) Pale ( ) Mottled  ( ) Cyst (parasite) ( ) Cyst (Fluid)  ( ) Reduced ( ) Raspberry surface ( uid) ( ) Colour
GROSS INTERNAL EXAMINATION  Adipose Tissue:     ( ) Normal	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts  ( ) Reduced Colour: ( ) Pale ( ) Mottled ( ) Cyst (parasite) ( ) Cyst (Fluid)  ( ) Reduced ( ) Raspberry surface ( ) Colour ( ) Colour ( ) Cyst (parasite) ( ) Tumour ( ) Cysts(parasite) ( ) Tumour ( ) Lesions ( ) Single ( ) Cyst (parasite) ( ) Cyst (fluid)
GROSS INTERNAL EXAMINATION  Adipose Tissue:     (	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts  ( ) Reduced Colour: ( ) Pale ( ) Mottled ( ) Cyst (parasite) ( ) Cyst (Fluid)  ( ) Reduced ( ) Raspberry surface ( ) Colour ( ) Colour ( ) Cyst (parasite) ( ) Tumour ( ) Cysts(parasite) ( ) Tumour ( ) Lesions ( ) Single ( ) Cyst (parasite) ( ) Cyst (fluid)

contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

DATE: 9/11/92

SAMPLE	NO.:/3 4 Loc	CATION: Ja
SPECIES	s: <u>Ling</u> CA	PTURE METHOD: SCT /INC
		AMINATION TIME: // 4/
GROSS E	EXTERNAL EXAMINATION	
Skin:	<pre>( X) Normal ( ) Excessive mucus ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagic ( ) Blister ( ) Tumour</pre>	( ) Abnormal Colour ( ) Multiple ( ) Closed ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
1	Location:	
7	Wet mount/smear:	
	( ×) Normal ( ) Exophthalmid ( ) Opaque cornea ( ) Lens lost	
Fins:	(×) Normal ( ) Frayed	( ) Haemorrhagic
	Wet mount/smear:	
Gills: (	<pre>( X ) Normal</pre>	( ) Mottled ( ) Haemorrhagic ucus ( ) Hyperplasia ( ) Cysts ( ) Fungus Visible
¥	Wet amount/smear:	
GROSS IN	NTERNAL EXAMINATION	
_ (	Tissue: ( ) Normal ( ) Excessive ( ) ( ) Colour ( )	) Reduced ( ) Petechial Haemorrhagic ) Cysts
(	( ) Normal ( ) Enlarge ( ) ( ) Other Texture: ( ) Lesions: ( ) Single ( ) Multiput ( ) Necrotic ( ) Haemorphagic ( )	Reduced Colour: ( ) Pale ( ) Mottled Die ( ) Tumour ( Cyst (parasite) ( ) Cyst (Fluid)
Spleen: (	( ) Normal ( ) Enlarged ( ) Cyst(parasite) ( ) Cyst (fluid)	( ) Reduced ( ) Raspberry surface ( ) Colour
S	Stained smear:	
Intestin (	nes: ( ) Normal ( ) Distended ( fluid) ( ) Flaccid ( ) Haemorrhagic	( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour
(	Posterior: ( ) Normal ( ) Enlarge ( ) ( ) Multiple ( ) Gritty, white ( ) ( ) Tumour	Lesions ( ) Single Cyst (parasite) ( ) Cyst (fluid)
s	Stained smear:	
OTHER: _		
	To the avent that a gignificant number of	

N.B. In the event that a significant number of specimen at any site have abnormalities, contractor is asked to immediately notify the Study Office.

Phone: 427-1742 or fab to 422-3055

DATE: 9/11/92

SAMPLE NO.: _/3.5	LOCATION:
SPECIES: Ling	CAPTURE METHOD: SET /INC
CAPTURE TIME: 12.50	
GROSS EXTERNAL EXAMINATION	
Skin: (X) Normal ( ) Excessive mu ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagic ( ) 3lister ( ) Tumour	( ) Abnormal Colour ( ) Multiple ( ) Closed ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
Location:	
Wet mount/smear:	
Fins: (X) Normal ( ) Exophth (X) Opaque cornea(Leff ( ) Lens logger (X) Normal ( ) Frayed_	almia ( ) Cataract ( ) Haemorrhagic st ( ) Parasites ( ) Bilateral  ( ) Haemorrhagic  ( ) Deformed
Wet mount/smear:	
Gills: (X) Normal ( ) Pale ( ) Necrotic ( ) Excession ( ) Telangiectasia ( ) Gas emponents ( ) Large Parasites	ve mucus ( ) Hyperpiasia oli ( ) Cvsts
Wet amount/smear:	
FROSS INTERNAL EXAMINATION	
Adipose Tissue: ( ) Normal ( ) Excessive ( ) Colour	( ) Reduced ( ) Petechial Haemorrnagic ( ) Cysts
( ) Other Texture:	( ) Reduced Colour: ( ) Pale ( ) Mottled ultiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)
	d ( ) Reduced ( ) Raspberry surface luid) ( ) Colour
Stained smear:	
Intestines:     ( ) Normal ( ) Distended ( floor)     ( ) Flaccid ( ) Haemorrhagic	uid) ( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour
<pre>Kidney, Posterior:     ( ) Normal ( ) Enlarge     ( ) Multiple ( ) Gritty, white     ( ) Tumour</pre>	( ) Lesions ( ) Single ( ) Cyst (parasite) ( ) Cyst (fluid)
Stained smear:	
OTHER:	
	ner of specimen at any site have abnormalities.

W.B. In the event that a significant number of specimen at any site have abnormalities, to contractor is asked to immediately notify the Study Office.

Phone: 427-1742 or fab to 422-3055

DATE: 9/11/92

	BALLS:
SAMPLE NO.: 136	LOCATION: Ja
SPECIES: Ling	CAPTURE METHOD: SET ///
	EXAMINATION TIME:
GROSS EXTERNAL EXAMINATION	
Skin: (X) Normal ( ) Excessive material ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagical ( ) Blister ( ) Tumour	( ) Abnormal Colour ( ) Closed ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
Location:	
Wet mount/smear:	
Eyes: ( X) Normal ( ) Exophth	malmia ( ) Cataract ( ) Haemorrhagic est ( ) Parasites ( ) Bilateral
Fins: ( \( \simega \) Normal ( ) Frayed_ ( ) Eroded	( ) Haemorrhagic
Wet mount/smear:	
Gills: (X) Normal ( ) Pale ( ) Necrotic ( ) Excessi ( ) Telangiectasia ( ) Gas emb ( ) Large Parasites  Wet amount/smear:	( ) Mottled ( ) Haemorrhagic ve mucus ( ) Hyperplasia oli ( ) Cysts ( ) Fungus Visible
gross internal examination	
Adipose Tissue:  ( ) Normal ( ) Excessive ( ) Colour	( ) Reduced ( ) Petechial Haemorrhagi ( ) Cysts
( ) Other Texture: ( ) Lesions: ( ) Single ( ) M	( ) Reduced Colour: ( ) Pale ( ) Mottle ultiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen: ( ) Normal ( ) Enlarge ( ) Cyst(parasite) ( ) Cyst (f	d ( ) Reduced ( ) Raspberry surface luid) ( ) Colour
Stained smear:	
Intestines:	uid) ( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour
<pre>Ridney, Posterior:     ( ) Normal ( ) Enlarge     ( ) Multiple ( ) Gritty, white     ( ) Tumour</pre>	( ) Lesions ( ) Single ( ) Cyst (parasite) ( ) Cyst (fluid)
Stained smear:	
OTHER:	
N.R. In the event that a significant numb	per of specimen at any site have abnormalities.

In the event that a significant number of specimen at any site have abnormalities, contractor is asked to immediately notify the Study Office.

Phone: 427-1742 or fab to 422-3055

	GROSS PATHOLOGY
	DATE: 9/11/92
SAMPLI	E NO.:
SPECII	capture meteod: scrine
CAPTUI	RE TIME: 1/50 EXAMINATION TIME: 1/5/
GROSS	EXTERNAL EXAMINATION
Skin:	( ) Normal ( ) Excessive mucus ( ) Abnormal Colour (×) Lesions ( ) Single ( ) Multiple ( ) Closed ( ) Open ( ) Haemorrhagic ( ) Necrotic ( ) Ulcer ( ) Blister ( ) Tumour ( ) Lost Scales ( ) Abrasions
	Location: Top of Head & Top 2.6HT Side
	Wet mount/smear:
	( ×) Normal ( ) Exophthalmia ( ) Cataract ( ) Haemorrhagic ( ) Opaque cornea ( ) Lens lost ( ) Parasites ( ) Bilateral
Fins:	( X ) Normal ( ) Frayed ( ) Haemorrhagic ( ) Eroded ( ) Deformed
	Wet mount/smear:
Gills:	( ) Normal ( ) Pale ( ) Mottled ( ) Haemorrhagic ( ) Necrotic ( ) Excessive mucus ( ) Hyperplasia ( ) Gas emboli ( ) Cysts ( ) Large Parasites ( ) Fungus Visible
	Wet amount/smear:
GROSS :	INTERNAL EXAMINATION
Adipos	Tissue:  ( ) Normal ( ) Excessive ( ) Reduced ( ) Petechial Haemorrhagic ( ) Colour ( ) Cysts
	( ) Normal ( ) Enlarge ( ) Reduced Colour: ( ) Pale ( ) Mottled ( ) Other Texture: ( ) Lesions: ( ) Single ( ) Multiple ( ) Tumour ( ) Necrotic ( ) Haemorrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen	Company Compan
	( ) Normal ( ) Enlarged ( ) Reduced ( ) Raspberry surface ( ) Cyst(parasite) ( ) Cyst (fluid) ( ) Colour
	Stained smear:
Intesti	ines: ( ) Normal ( ) Distended ( fluid ) ( ) Distended (mucoid) ( ) Flaccid ( ) Haemorrhagic ( ) Cysts(parasite) ( ) Tumour
Kidney,	<pre>Posterior: ( ) Normal ( ) Enlarge ( ) Lesions ( ) Single ( ) Multiple ( ) Gritty, white ( ) Cyst (parasite) ( ) Cyst (fluid) ( ) Tumour</pre>
	Stained smear:

N.B. In the event that a significant number of specimen at any site have abnormalities, the contractor is asked to immediately notify the Study Office.

Phone: 427-1742 or fab to 422-3055

OTHER:

GROSS PATHOLOGY
DATE: 9/11/92

SAMPLE	E NO.: 138 Loc	CATION:
SPECIE	Es: Ling CA	TURE METEOD: Set line
CAPTUR	RE TIME: /// CO EX	MINATION TIME: //:55
GROSS	EXTERNAL EXAMINATION	
Skin:	( ) Normal ( ) Excessive mucus ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagic ( ) Tumour	( ) Abnormal Colour ( ) Multiple ( ) Closed ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
	Location:	
	Wet mount/smear:	
_	( ) Opaque cornea (X) Lens lost	a ( ) Cataract ( ) Haemorrhagic ( ) Parasites ( ) Bilateral
Fins:	( × ) Normal ( ) Frayed	( ) Haemorrhagic
	Wet mount/smear:	
Gills:	( ) Normal ( ) Pale ( ) Necrotic ( ) Excessive mu ( ) Telangiectasia ( ) Gas emboli ( ) Large Parasites	( ) Mottled ( ) Haemorrhagic icus ( ) Hyperplasia ( ) Cysts _ ( ) Fungus Visible
	Wet amount/smear:	
GROSS 1	INTERNAL EXAMINATION	
Adipose	te Tissue: ( ) Normal ( ) Excessive ( ) ( ) Colour ( )	Reduced ( ) Petechial Haemorrhagi
Liver:		Reduced Colour: ( ) Pale ( ) Mottle
Spleen:	( ) Normal ( ) Enlarged ( ) Cyst(parasite) ( ) Cyst(fluid)	( ) Reduced ( ) Raspberry surface ( ) Colour
	Stained smear:	· · · · · · · · · · · · · · · · · · ·
Intesti	ines: ( ) Normal ( ) Distended ( fluid) ( ) Flaccid ( ) Haemorrhagic	( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour
Kidney,	<pre>( ) Posterior:   ( ) Normal</pre>	Lesions ( ) Single Cyst (parasite) ( ) Cyst (fluid)
	Stained smear:	
OTHER:		
N.B.	In the event that a significant number of contractor is asked to immediately notile Phone: 427-1742 or fab to 422-3055	f specimen at any site have abnormalities, fy the Study Office.

DATE: 11/1/92

SAMPLE	: NO.: 139		ion: <u>#3</u>		_
SPECIE	is: Ling	CAPTU	E METHOD: _	Sof Line	
	E TIME: 10CU	EXAMIN	ATION TIME:	1054	<del></del>
GROSS I	EXTERNAL EXAMINATION				
Skin:	( \( \) Normal ( ) Exce ( ) Lesions ( ) Sing ( ) Open ( ) Haem ( ) 3lister ( ) Tumo	ssive mucus le orrhagic ur	( ) Multipl ( ) Necroti	d Colour de ( ) Cl de ( ) Ul ales ( ) Ab	
	Location:				
	Wet mount/smear:			-	
Eyes:	( /) Normal ( )	Exophthalmia Lens lost	( ) Catarac ( ) Parasit	t ( ) Haemo: es ( ) Bilat	rrhagic eral
Fins:	( ) Normal ( ) ( ) Eroded  Wet mount/smear:	Frayed	( ) Deforme	( ) Haemo:	rrhagic
		-			
Gills:	( \( \) Normal ( ) ( ) Necrotic ( ) ( ) Telangiectasia ( ) ( ) Large Parasites	Pale Excessive mucu Gas emboli	( ) Mottled s ( ) Cysts ( ) Fungus	( ) Haemo: ( ) Hyper; Visible	crhagic plasia
	Wet amount/smear:				
GROSS I	INTERNAL EXAMINATION				
Adipose	Tissue: ( ) Normal ( ) Exce	ssive ( ) Ro	educed YSTS	( ) Petechial	i Haemorrhagic
	( ) Normal ( ) Enlar ( ) Other Tex ( ) Lesions: ( ) Single ( ) Necrotic ( ) Haem	ure:	( ) Tumou:	r	
Spleen:		Enlarged	( ) Reduced	( ) Rasphe	erry surface
	( ) Normal ( ) ( ) Cyst(parasite) ( )	Cyst (fluid)	) Colour	( )	
	Stained smear:		·		
Intesti	ines: ( ) Normal ( ) Distend ( ) Flaccid ( ) Haemor	ded ( fluid) chagic	) Distendo	ed (mucoid) arasite) (	) Tumour
Kidney,	<pre>Posterior: ( ) Normal ( ) Enlarge ( ) Multiple ( ) Gritty ( ) Tumour</pre>	e ( ) Lo , white ( ) C	esions yst (parasit:	( ) Sir	igle st (fluid)
	Stained smear:				
OTHER:			<del></del>		
N.B.	In the event that a signific contractor is asked to imm Phone: 427-1742 or fab to	ediately notify	pecimen at an the Study O	ny site have al ffice.	onormalities,

ROSS PATHOLOGY

		1000			_				
MPLE	NO.:	140			LOCATIO	V:/	3		_
ECIES	s:	Line			CAPTURE	HETHOD:	50+ L	ine	
		0915			ezantra	TION TIME	:	057	
oss e	* GUERRATA		ON						
in:	( \( \) Nor ( ) Les ( ) Ope ( ) 3li	mal ions n ster	( ) Exc ( ) Sin ( ) Hae ( ) Tum	essive mu gle morrhagic our	( ( (	) Abnor ) Multi ) Necro ) Lost	mal Colo ple tic Scales	( ) Clc ( ) Ulc ( ) Abr	osed er asions
	Location						<del></del>	<del></del>	
	Wet mount	:/smear:							
s:	( X) Nort ( ) Opac	nal Nue corne	a (	) Exophth ) Lens lo	almia (	) Catara ) Parasi	ict ( ites (	) Haemor ) Bilate	rhagic ral
ıs:	( X ) Norr	nal led	(	) Frayed_	- (	) Deform	ned	) Haemor	rhagic
,	Wet mount	:/smear:			· · · · · · · · · · · · · · · · · · ·				
lls:	(	al otic ingiectas	( ( ia (	) Pale ) Excessi ) Gas emb	ve mucus	) Mottle ) Cysts	ed ( ( : Visibl	e Haemor	rhagic lasia
	, ,	e rarasr	rea		(	,			
					(				
1	Wet amour				(			<u>_</u>	
SS I	Wet amour	c/smear:	ON		(				
oss I	Wet amour	c/smear:	ON		(				Haemorrn
oss II ipose ver:	Wet amount of the control of the con	TAMINATI  al  al  r  ons: (	( ) Exc	essive	( ) Red: ( ) Cys: ( ) Red:	iced is iced Co	( ) P	etechial ) Pale	( ) Mot:
er:	Wet amount in the control of the con	TAMINATI  al  ur  ons: ( otic	( ) Exc: ( ) Enl: Te: ) Single ( ) Haer	essive arge xture: e ( ) Mu	( ) Red: ( ) Cys: ( ) Red: altiple ( ) Cys:	iced is iced Co ( ) Tumo ( ) parasi	( ) P lour: ( ur te) (	etechial ) Pale ) Cyst (:	( ) Mot
ess II	Wet amount in the state of the	TAMINATI  al  ur  ons: ( otic	( ) Exc: ( ) Enl: Te: ) Single ( ) Haer	essive arge xture: e ( ) Mu	( ) Red: ( ) Cys: ( ) Red: altiple ( ) Cys:	iced is iced Co ( ) Tumo ( ) parasi	( ) P lour: ( ur te) (	etechial ) Pale ) Cyst (:	( ) Mott
oss II	Wet amount of the control of the con	TAMINATI  al  ur  ons: ( otic	( ) Exc. ( ) Enl. Te: ) Single ( ) Haer	essive  arge  kture:  e ( ) Mu  morrhagic  ) Enlarged	( ) Red: ( ) Cys: ( ) Red: altiple ( ) Cys:	iced is iced Co ( ) Tumo ( ) parasi	( ) P lour: ( ur te) (	etechial ) Pale ) Cyst (:	( ) Mot
oss II	Wet amount NTERNAL Factor of the control of the con	TAMINATI  al cons: ( otic  al (parasit mear:	( ) Excent ( ) Enlar ( ) Single ( ) Haer ( )	essive  arge  kture:  e ( ) Mu  morrhagic  ) Enlarged	( ) Red: ( ) Cys: ( ) Red: iltiple ( ) Cys: d ((luid) (	iced is iced Co ( ) Tumo ( parasi ) Reduce ) Colour	( ) ? lour: ( ur te) ( d (	etechial ) Pale ) Cyst (1	( ) Moto
oss II	Wet amount NTERNAL Factor of the control of the con	TAMINATI  al cons: ( otic  al (parasit mear:	( ) Excent ( ) Enlar ( ) Single ( ) Haer ( )	essive  arge  kture:  e ( ) Mu  morrhagic  ) Enlarged	( ) Red: ( ) Cys: ( ) Red: iltiple ( ) Cys: d ((luid) (	iced is iced Co ( ) Tumo ( parasi ) Reduce ) Colour	( ) ? lour: ( ur te) ( d (	etechial ) Pale ) Cyst (1	( ) Moto
oss II ipose ver:	Wet amount NTERNAL Factor of the control of the con	al (parasit mear:	( ) Excent ( ) Enlar ( ) Single ( ) Haer ( ) Haer ( ) Dister ( ) Haemon	essive  arge  kture:  e ( ) Mu  morrhagic  ) Enlarged	( ) Red: ( ) Cys: ( ) Red: iltiple ( ) Cys: d ((luid) (	ced Co ( ) Tumo ( parasi ) Reduce ) Colour ) Disten ) Cysts(	lour: ( ur te) ( d ( ded (mur parasite	etechial ) Pale ) Cyst (: ) Raspbe:	( ) Moto
oss II pose er:	Wet amount NTERNAL F Tissue: ( ) Norm ( ) Cold ( ) Norm ( ) Othe ( ) Lesi ( ) Norm ( ) Cyst Stained s  es: ( ) Norm ( ) Flac ( ) Norm ( ) Tumo	al (parasit mear:	( ) Excellent ( ) Enlarge ( ) Dister ( ) Haemon ( ) Enlarge ( ) Gritty	essive  arge  kture:  e ( ) Mu  morrhagic  ) Enlarged  ) Cyst (filterinagic  anded ( fluerhagic  ge  y, white	( ) Red: ( ) Cys: ( ) Red: iltiple ( ) Cys: d ((luid) (	ced Co ( ) Tumo ( parasi ) Reduce ) Colour ) Disten ) Cysts(	lour: ( ur te) (  d ( ded (mur parasite	etechial ) Pale ) Cyst (: ) Raspbe:	rry surfac

	ROSS PALIULOGI
	DATE: 11/11/92
<b>SAMPLE NO.:</b>	LOCATION: H3
SPECIES: Ling	CAPTURE NETEOD: Set Line
CAPTURE TIME: 09/5	EXAMINATION TIME: //00
GROSS EXTERNAL EXAMINATION	
Skin: ( X) Normal ( ) Excessive ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhag ( ) Blister ( ) Tumour	mucus ( ) Abnormal Colour ( ) Multiple ( ) Closed ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
Location:	
Wet mount/smear:	
Eyes: ( X) Normal ( ) Exoph ( ) Opaque cornea ( ) Lens	thalmia ( ) Cataract ( ) Haemorrhagic lost ( ) Parasites ( ) Bilateral
Fins: ( X) Normal ( ) Frayer ( ) Eroded	d( ) Haemorrhagic
Wet mount/smear:	
Gills: ( X) Normal ( ) Pale ( ) Necrotic ( ) Excess ( ) Telangiectasia ( ) Gas en ( ) Large Parasites	( ) Mottled ( ) Haemorrhagic sive mucus ( ) Hyperplasia mboli ( ) Cysts ( ) Fungus Visible
Wet amount/smear:	
GROSS INTERNAL EXAMINATION	
Adipose Tissue:	( ) Reduced ( ) Petechial Haemorrhagia ( ) Cysts
( ) Other Texture: _ ( ) Lesions: ( ) Single ( )	( ) Reduced Colour: ( ) Pale ( ) Mottled Multiple ( ) Tumour ic ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen:  ( ) Normal ( ) Enlarge ( ) Cyst(parasite) ( ) Cyst	ged ( ) Reduced ( ) Raspberry surface (fluid) ( ) Colour
Stained smear:	
Intestines:     ( ) Normal ( ) Distended ( : ( ) Flaccid ( ) Haemorrhagic	fluid) ( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour
<pre>Ridney, Posterior:     ( ) Normal ( ) Enlarge     ( ) Multiple ( ) Gritty, white     ( ) Tumour</pre>	( ) Lesions ( ) Single e ( ) Cyst (parasite) ( ) Cyst (fluid)
Stained smear:	

N.B. In the event that a significant number of specimen at any site have abnormalities, the contractor is asked to immediately notify the Study Office.

Phone: 427-1742 or fab to 422-3055

OTHER: \_

GROSS PATHOLOGY DATE: 11/11/92 LOCATION: SAMPLE NO .: CAPTURE METHOD: 110 3 EXAMINATION TIME: CAPTURE TIME: GROSS EXTERNAL EXAMINATION ( ) Excessive mucus ( ) Abnormal Colour ( ) Single ( ) Multiple ( ) Closec ( ) Haemorrhagic ( ) Necrotic ( ) Ulcer ( X) Normal Skin: ( ) Lesions ) Open ( ) Tumour ) Blister ( ) Lost Scales ( ) Abrasions Location: \_\_\_ Wet mount/smear: \_\_\_ Eyes: ( X ) Normal ( ) Exophthalmia ( ) Cataract ( ) Haemorrhagic ( ) Opaque cornea ( ) Lens lost ( ) Parasites ( ) Bilateral ( ) Haemorrhagic ( X) Normal ( ) Frayed\_\_\_\_\_ Fins: ( ) Deformed ( ) Eroded \_ Wet mount/smear: \_\_\_\_ ( × ) Normal ( ) Pale ( ) Mottled ( ) Haemorrhagic ( ) Excessive mucus ( ) Hyperplasia ( ) Mottled ( ) Haemorinagic Gills: (X) Normal ) Telangiectasia ( ) Gas empoli ( ) Cysts ( ) Fungus Visible ) Large Parasites \_\_\_\_\_ Wet amount/smear: \_\_\_ GROSS INTERNAL EXAMINATION Adipose Tissue: ( ) Normal ( ) Excessive ( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts ) Colour \_ ( ) Reduced Colour: ( ) Pale ( ) Mottled Liver: ( ) Normal ( ) Enlarge \_\_\_ Texture: ) Other \_ ) Lesions: ( ) Single ( ) Multiple ( ) Tumour ) Necrotic ( ) Haemorrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid) Spleen: ( ) Enlarged ( ) Reduced ( ) Raspberry surface ( ) Normal ( ) Cyst(parasite) ( ) Cyst (fluid) ( ) Colour \_ Stained smear: \_\_ Intestines: ( ) Normal ( ) Distended (fluid) ( ) Distended (mucoid)
( ) Flaccid ( ) Haemorrhagic ( ) Cysts(parasite) ( ) Tumour

M.B. In the event that a significant number of specimen at any site have abnormalities, contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

( ) Enlarge

( ) Lesions

) Multiple ( ) Gritty, white ( ) Cyst (parasite) ( ) Cyst (fluid)

( ) Single

Kidney, Posterior:

OTHER:

( ) Normal

) Tumour

Stained smear: \_

	GROSS PATHOLOGY	210
	DATE: 11/11/	
<b>SAMPLE NO.:</b> /2/3	LOCATION: H2	
SPECIES: Ling	CAPTURE METEOD:	Set Line
CAPTURE TIME: 8930	EXAMINATION TIME:	1106
GROSS EXTERNAL EXAMINATION		
Skin: ( X) Normal ( ) ( ) ( ) Lesions ( ) ( ) Open ( ) ( ) Slister ( )	Excessive mucus ( ) Abnormal Single ( ) Multiple Haemorrhagic ( ) Necrotic Tumour ( ) Lost Sca	Colour  ( ) Closec ( ) Ulcer ales ( ) Abrasions
Location:		
Wet mount/smear:		
	( ) Exophthalmia ( ) Cataract ( ) Lens lost ( ) Parasite	
Fins: ( X) Normal ( ) Eroded	( ) Frayed ( ) Deformed	( ) Haemorrhagic
Wet mount/smear:		
Gills: ( X) Normal ( ) Necrotic ( ) Telangiectasia ( ) Large Parasites	( ) Pale ( ) Mottled ( ) Excessive mucus ( ) Gas emboli ( ) Cysts ( ) Fungus V	( ) Haemorrhagic ( ) Hyperplasia
Wet amount/smear:		
GROSS INTERNAL EXAMINATION		
Adipose Tissue:  ( ) Normal ( ) E  ( ) Colour		) Petechial Haemorrhagic
( ) Other	Enlarge ( ) Reduced Colo Texture: ngle ( ) Multiple ( ) Tumour Haemorrhagic ( ) Cyst (parasite	
Spleen:	( ) Enlarged ( ) Reduced ( ) Cyst (fluid) ( ) Colour _	( ) Raspberry surface
Stained smear:		
Intestines:	stended (fluid) ( ) Distende emorrhagic ( ) Cysts(pa	d (mucoid) rasite) ( ) Tumour
Kidney, Posterior:  ( ) Normal ( ) End ( ) Multiple ( ) Grown	large ( ) Lesions itty, white ( ) Cyst (parasite	( ) Single ) ( ) Cyst (fluid)

N.B. In the event that a significant number of specimen at any site have abnormalities, the contractor is asked to immediately notify the Study Office.

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Stained smear: \_\_

### NORTHERN RIVER BASINS STUDY

	EIANINATION SHEETS GROSS PATHOLOGY	
	DATE: /////92	
	NO.: 144 LOCATION: 1/2	
SPECIE	CAPTURE METHOD: Set Line  TIME: 0930  EXAMINATION TIME: 1/08	
CAPTUR	TIME: 0930 EXAMINATION TIME: 1/08	
GROSS :	TTERNAL EXAMINATION	
Skin:	( ) Lesions ( ) Single ( ) Multiple ( ) Closed ( ) Open ( ) Haemorrhagic ( ) Necrotic ( ) Ulcer ( ) Blister ( ) Tumour ( ) Lost Scales ( ) Abrasions	
	Location: Black and Red Spots	
	Wet mount/smear:	
Eyes:	( ) Normal ( ) Exophthalmia ( ) Cataract ( ) Haemorrhagic ( ) Opaque cornea ( ) Lens lost ( ) Parasites ( ) Bilateral	
Fins:	( ) Normal ( ) Frayed ( ) Haemorrhagic ( ) Eroded ( ) Deformed Solid Anal Fin	
	Wet mount/smear:	
Gills:	( ) Normal ( ) Pale ( ) Mottled ( ) Haemorrhagic ( ) Necrotic ( ) Excessive mucus ( ) Hyperplasia ( ) Telangiectasia ( ) Gas emboli ( ) Cysts ( ) Large Parasites ( ) Fungus Visible	
	Wet amount/smear:	
GROSS I	NTERNAL EXAMINATION	
_	Tissue: ( ) Normal ( ) Excessive ( ) Reduced ( ) Petechial Haemor. ( ) Colour ( ) Cysts	rhagi
	( ) Normal ( ) Enlarge ( ) Reduced Colour: ( ) Pale ( ) Modern ( ) Cyst (Fluid)	ottle
Spleen:	( ) Normal ( ) Enlarged ( ) Reduced ( ) Raspberry sur: ( ) Cyst(parasite) ( ) Cyst (fluid) ( ) Colour	face
	Stained smear:	

OTHER: In the event that a significant number of specimen at any site have abnormalities, N.B. contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

) Normal ( ) Enlarge ( ) Lesions ( ) Single ) Multiple ( ) Gritty, white ( ) Cyst (parasite) ( ) Cyst (fluid) ) Tumour

( ) Cysts(parasite) ( ) Tumour

( ) Normal ( ) Distended (fluid) ( ) Distended (mucoid) ( ) Flaccid ( ) Haemorrhagic ( ) Cysts(parasite)

Intestines:

Ridney, Posterior:

( ) Normal

Stained smear: \_

DATE: 11/11/92

SAMPLE NO.:	LOCATION: 1/2
species: 6 ins	CAPTURE METHOD: Set Line
CAPTURE TIME: 0945	EXAMINATION TIME: ///2
GROSS EXTERNAL EXAMINATION	
Skin: ( ) Normal ( ) Excessive mu	cue ( ) Abnormal Colour
( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagic ( ) Blister ( ) Tumour	( ) Multiple ( ) Closed ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( × ) Abrasions
Location: Scratches on top o-	nec'
Wet mount/smear:	
	almia ( ) Cataract ( ) Haemorrhagic st ( ) Parasites ( ) Bilateral
Fins: ( \( \) Normal ( ) Frayed_ ( ) Eroded	( ) Haemorrhagic
Wet mount/smear:	
Gills: ( ) Normal ( ) Pale	( ) Fundas Alpine
GROSS INTERNAL EXAMINATION	
Adipose Tissue:  ( ) Normal ( ) Excessive ( ) Colour	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
( ) Other Texture: ( ) Lesions: ( ) Single ( ) Mu	( ) Reduced Colour: ( ) Pale ( ) Mottled  altiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen:	d ( ) Reduced ( ) Raspberry surface
Stained smear:	
Intestines:	
( ) Normal ( ) Distended ( flu ( ) Flaccid ( ) Haemorrhagic	<pre>did) ( ) Distended (mucoid)</pre>
<pre>Ridney, Posterior:     ( ) Normal ( ) Enlarge     ( ) Multiple ( ) Gritty, white     ( ) Tumour</pre>	( ) Lesions ( ) Single ( ) Cyst (parasite) ( ) Cyst (fluid)
Stained smear:	
OTHER:	
	an of specimen an any size have about 11 in a

N.B. In the event that a significant number of specimen at any site have abnormalities, the contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

	DATE: /////22
SAMPLE NO.:	LOCATION: 1/2
species: Ling	CAPTURE METHOD: Set Line
CAPTURE TIME: 0930	EXAMINATION TIME:
GROSS EXTERNAL EXAMINATION	
Skin: ( Normal ( ) Excessive mu ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagic	cus ( ) Abnormal Colour ( ) Multiple ( ) Closed ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
Location:	
Wet mount/smear:	
Eyes: (\(\frac{1}{2}\) Normal ( ) Exophth: ( ) Opaque cornea ( ) Lens los	
Fins: ( ( ) Normal ( ) Frayed	( ) Haemorrhagic
Wet mount/smear:	
Gills: (J) Normal ( ) Pale ( ) Excession ( ) Telangiectasia ( ) Gas embodiectasia ( ) Large Parasites	( ) Mottled ( ) Haemorrhagic re mucus ( ) Hyperplasia oli ( ) Cysts ( ) Fungus Visible
Wet amount/smear:	
GROSS INTERNAL EXAMINATION	
21.000	
Adipose Tissue:	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
Adipose Tissue:     ( ) Normal ( ) Excessive     ( ) Colour	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts ( ) Reduced Colour: ( ) Pale ( ) Mottled   Itiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)
Adipose Tissue:  ( ) Normal ( ) Excessive ( ) Colour  Liver: ( ) Normal ( ) Enlarge ( ) Other Texture:	( ) Reduced Colour: ( ) Pale ( ) Mottled
Adipose Tissue:  ( ) Normal ( ) Excessive ( ) Colour  Liver: ( ) Normal ( ) Enlarge ( ) Other Texture:	( ) Reduced Colour: ( ) Pale ( ) Mottled ltiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)
Adipose Tissue:  ( ) Normal ( ) Excessive ( ) Colour  Liver: ( ) Normal ( ) Enlarge ( ) Other Texture:	( ) Reduced Colour: ( ) Pale ( ) Mottled ltiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)
Adipose Tissue:  ( ) Normal ( ) Excessive ( ) Colour  Liver: ( ) Normal ( ) Enlarge ( ) Other Texture:	( ) Reduced Colour: ( ) Pale ( ) Mottled  ltiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)  ( ) Reduced ( ) Raspberry surface  uid) ( ) Colour
Adipose Tissue:  ( ) Normal ( ) Excessive ( ) Colour  Liver: ( ) Normal ( ) Enlarge	( ) Reduced Colour: ( ) Pale ( ) Mottled  ltiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)

N.B. In the event that a significant number of specimen at any site have abnormalities, contractor is asked to immediately notify the Study Office.

Phone: 427-1742 or fab to 422-3055

1,11,197

		DATE:
SAMPLE	NO.:	LOCATION: 40
SPECIE	s: Ling	CAPTURE METHOD: Set Line
CAPTURI	E TIME: 0930	EXAMINATION TIME: ///9
GROSS 1	EXTERNAL EXAMINATION	
	( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagic ( ) Blister ( ) Tumour	(X) Abnormal Colour  ( ) Multiple ( ) Closed ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
	Wet mount/smear:	
	•	almia ( ) Cataract ( ) Haemorrhagic t ( ) Parasites ( ) Bilateral
		( ) Haemorrhagic
	Wet mount/smear:	
Gills:	( ) Normal ( ) Pale ( ) Excessiv ( ) Telangiectasia ( ) Gas embo	( ) Mortled ( ) Haemorrhagic re mucus ( ) Hyperplasia li ( ) Cysts ( ) Fungus Visible
	Wet amount/smear:	
GROSS I	INTERNAL EXAMINATION	
Adipose	Tissue:	
	( ) Normal ( ) Excessive ( ) Colour	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
	( ) Other Texture:	( ) Reduced Colour: ( ) Pale ( ) Mottled  ltiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen:	( ) Normal ( ) Enlarged ( ) Cyst(parasite) ( ) Cyst (fl	( ) Reduced ( ) Raspberry surface uid) ( ) Colour
	Stained smear:	
Intesti	ines: ( ) Normal ( ) Distended ( flu ( ) Flaccid ( ) Haemorrhagic	id) ( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour
Kidney,	Postarior: ( ) Normal ( ) Enlarge ( ) Multiple ( ) Gritty, white ( ) Tumour	( ) Lesions ( ) Single ( ) Cyst (parasite) ( ) Cyst (fluid)
	Stained smear:	
OTHER:		
N.B.	In the event that a significant number contractor is asked to immediately Phone: 427-1742 or fab to 422-3055	er of specimen at any site have abnormalities, in notify the Study Office.

#### NORTHERN RIVER BASINS STUDY EXAMINATION SHEETS

11/1/92

GROSS PATHOLOGY

		7.,,
SAMPLE	PLE NO.: 148 LOCATION:	
SPECIE	CIES: Line CAPTURE ME	THOD: Setline
	TURE TIME: 0930 EXAMINATION	N TIME: 1/22
GROSS	SS EITERNAL EXAMINATION	
Skin:	( ) Normal ( ) Excessive mucus ( ) ( ) Lesions ( ) Single ( ) ( ) Open ( ) Haemorrhagic ( ) ( ) Blister ( ) Tumour ( )	Abnormal Colour Multiple ( ) Closed Necrotic ( ) Ulcer Lost Scales ( ) Abrasions
	Location:	
	Wet mount/smear:	
Eyes:	: ( X ) Normal ( ) Exophthalmia ( ) ( ) Opaque cornea ( ) Lens lost ( )	Cataract ( ) Haemorrhagic Parasites ( ) Bilateral
Fins:	: ( \( \) Normal ( ) Frayed ( )	( ) Haemorrhagic
	Wet mount/smear:	
Gills:	s: (\(\chi\) Normal ( ) Pale ( ) ( ) Necrotic ( ) Excessive mucus ( ) Telangiectasia ( ) Gas emboli ( ) ( ) Large Parasites ( )	Mottled ( ) Haemorrhagic ( ) Hyperplasia Cysts Fungus Visible
	Wet amount/smear:	
GROSS :	S INTERNAL EXAMINATION	
Adipose	ose Tissue:  ( ) Normal ( ) Excessive ( ) Reduce ( ) Colour ( ) Cysts	
Liver:	r: ( ) Normal ( ) Enlarge ( ) Reduced ( ) Other Texture: ( ) Lesions: ( ) Single ( ) Multiple ( ( ) Necrotic ( ) Haemorrhagic ( ) Cyst ()	) Tumour
Spleen	( ) Normal ( ) Enlarged ( ) I ( ) Cyst(parasite) ( ) Cyst (fluid) ( ) (	Reduced ( ) Raspoerry surface
Intesti	tines:	
	( ) Normal ( ) Distended (fluid) ( ) I ( ) Flaccid ( ) Haemorrhagic ( ) (	Distended (mucoid) Cysts(parasite) ( ) Tumour
Kidney,	ay, Postarior:  ( ) Normal ( ) Enlarge ( ) Lesions ( ) Multiple ( ) Gritty, white ( ) Cyst () ( ) Tumour	g ( ) Single parasite) ( ) Cyst (fluid)
	Stained smear:	
OTHER:	R:	
N.B.	In the event that a significant number of specime contractor is asked to immediately notify the SPhone: 427-1742 or fab to 422-3055	

DATE: 11/11/92

SAMPLE NO.: /49	LOCATION: 4/2
SPECIES: Ling	CAPTURE METHOD: Set Line
CAPTURE TIME: 8945	EXAMINATION TIME:
GROSS EXTERNAL EXAMINATION	
Skin: ( X) Normal ( ) Exces	de ( ) Abnormal Colour Le ( ) Multiple ( ) Closed Orrhagic ( ) Necrotic ( ) Ulcer Le ( ) Lost Scales ( ) Abrasions
Location:	
Wet mount/smear:	
Eyes: ( X) Normal ( ) ( ) Opaque cornea ( )	Exophthalmia ( ) Cataract ( ) Haemorrhagic Lens lost ( ) Parasites ( ) Bilateral
Fins: ( X) Normal ( ) ( ) Eroded	Frayed ( ) Haemorrhagic
Wet mount/smear:	
Gills: ( X) Normal ( ) ( ) Necrotic ( ) ( ) Telangiectasia ( ) ( ) Large Parasites	Pale ( ) Mottled ( ) Haemorrhagic Excessive mucus ( ) Hyperplasia Gas emboli ( ) Cysts ( ) Fungus Visible
Wet amount/smear:	
GROSS INTERNAL EXAMINATION	
Adipose Tissue:  ( ) Normal ( ) Exces ( ) Colour	sive ( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
( ) Other Text ( ) Lesions: ( ) Single	( ) Multiple ( ) Tumour
( ) Necrotic ( ) Haemo	rrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid)
( ) Necrotic ( ) Haemo	rrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid)  Enlarged ( ) Reduced ( ) Raspberry surface Cyst (fluid) ( ) Colour
( ) Necrotic ( ) Haemo	rrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid)
( ) Necrotic ( ) Haemo  Spleen:	rrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid)
( ) Necrotic ( ) Haemo  Spleen:	rrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid)  Enlarged ( ) Reduced ( ) Raspberry surface Cyst (fluid) ( ) Colour
( ) Necrotic ( ) Haemo  Spleen:	<pre>rrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid)  Enlarged</pre>

N.B. In the event that a significant number of specimen at any site have abnormalities, the contractor is asked to immediately notify the Study Office.

Phone: 427-1742 or fab to 422-3055

	1/1/1/92
DATE:	1/////2

SAMPLE NO.: 150	LOCATION: HD
SPECIES: Ling	CAPTURE METHOD: Set Line
CAPTURE TIME: 0945	EXAMINATION TIME: 1/26
GROSS EXTERNAL EXAMINATION	
Skin: ( \( \seta \) Normal ( ) Excessive mu ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagic ( ) Blister ( ) Tumour	( ) Multiple ( ) Closed ( ) Necrotic ( ) Ulcer
Location:	
Wet mount/smear:	
Eyes: (\(\frac{1}{\chi}\)) Normal ( ) Exophth ( ) Opaque cornea ( ) Lens lo	almia ( ) Cataract ( ) Haemorrhagic st ( ) Parasites ( ) Bilateral
Fins: (1) Normal ( ) Frayed_ ( ) Eroded	( ) Haemorrhagic
Wet mount/smear:	
Gills: ( ( ) Normal ( ) Pale ( ) Necrotic ( ) Excession ( ) Telangiectasia ( ) Gas embed ( ) Large Parasites	( ) Mottled ( ) Haemorrhagic ve mucus ( ) Hyperplasia oli ( ) Cysts ( ) Fungus Visible
Wet amount/smear:	
Wet amount/smear:  GROSS INTERNAL EXAMINATION	
GROSS INTERNAL EXAMINATION Adipose Tissue:	( ) Reduced ( ) Petechial Haemorrhagic
GROSS INTERNAL EXAMINATION  Adipose Tissue:     ( ) Normal ( ) Excessive     ( ) Colour	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts ( ) Reduced Colour: ( ) Pale ( ) Mottled
GROSS INTERNAL EXAMINATION  Adipose Tissue:	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts ( ) Reduced Colour: ( ) Pale ( ) Mottled
GROSS INTERNAL EXAMINATION  Adipose Tissue:	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts ( ) Reduced Colour: ( ) Pale ( ) Mottled altiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)
GROSS INTERNAL EXAMINATION  Adipose Tissue:	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts  ( ) Reduced Colour: ( ) Pale ( ) Mottled  altiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)  d ( ) Reduced ( ) Raspberry surface  Luid) ( ) Colour
GROSS INTERNAL EXAMINATION  Adipose Tissue:	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts  ( ) Reduced Colour: ( ) Pale ( ) Mottled  altiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)  d ( ) Reduced ( ) Raspberry surface aid) ( ) Distended (mucoid)
GROSS INTERNAL EXAMINATION  Adipose Tissue:	( ) Reduced ( ) Petechial Haemorrhagic   ( ) Cysts  ( ) Reduced Colour: ( ) Pale ( ) Mottled  altiple ( ) Tumour   ( ) Cyst (parasite) ( ) Cyst (Fluid)  d
GROSS INTERNAL EXAMINATION  Adipose Tissue:	( ) Reduced ( ) Petechial Haemorrhagic   ( ) Cysts  ( ) Reduced Colour: ( ) Pale ( ) Mottled  altiple ( ) Tumour   ( ) Cyst (parasite) ( ) Cyst (Fluid)  d

W.B. In the event that a significant number of specimen at any site have abnormalities, contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

DATE: /////92

<b>SAMPLE NO.:</b>	LOCATION: 4//	
SPECIES: Lins	CAPTURE METHOD: Stline	
CAPTURE TIME: 0875	EXAMINATION TIME: 1129	
gross external examination		
( ) Lesions ( ) Sind ( ) Open ( ) Haem	contraction ( ) Abnormal Colour ( ) Close ( ) Multiple ( ) Close ( ) Necrotic ( ) Ulce ( ) Lost Scales ( ) Abras	ec r sions
Location:		
Wet mount/smear:	eye popul and	
	Exophthalmia ( ) Cataract ( ) Haemorr's Lens lost ( ) Parasites ( ) Bilatera	
Fins: ( X) Normal ( )	Frayed ( ) Haemorr:	nagic
Wet mount/smear:		
Gills: ( ) Normal ( ) ( ) Necrotic ( ) ( ) Telangiectasia ( ) ( ) Large Parasites	Pale ( ) Mottled ( ) Haemorri Excessive mucus ( ) Hyperpla Gas emboli ( ) Cysts ( ) Fungus Visible	nagic Asia
Wet amount/smear:		<del></del>
GROSS INTERNAL EXAMINATION		
Adipose Tissue:		
( ) Colour		
( ) Other Tex ( ) Lesions: ( ) Single	rge ( ) Reduced Colour: ( ) Pale ( ture: ( ) Multiple ( ) Tumour corrhagic ( ) Cyst (parasite) ( ) Cyst (Fl	
Spleen:	Enlarged ( ) Reduced ( ) Raspberr	v surface
( ) Cyst(parasite) ( )	Enlarged ( ) Reduced ( ) Raspberr Cyst (fluid) ( ) Colour	-
Stained smear:		
Intestines: ( ) Normal ( ) Disten ( ) Flaccid ( ) Haemor	ded (fluid) ( ) Distended (mucoid) ( ) Cysts(parasite) ( )	Tumour
Kidney, Posterior:  ( ) Normal ( ) Enlarg  ( ) Multiple ( ) Gritty  ( ) Tumour	ge ( ) Lesions ( ) Singler, white ( ) Cyst (parasite) ( ) Cyst	e (fluid)
Stained smear:		
OTHER:		
N.B. In the event that a signifi	cant number of specimen at any site have abno	ormalities,
contractor is asked to imm Phone: 427-1742 or fab to	nediately notify the Study Office. 422-3055	

11/11/92

SAMPLE NO.: 152	LOCATION: 4//
SPECIES: Line	CAPTURE METHOD: Set Line
CAPTURE TIME: 09/5	EXAMINATION TIME:
GROSS EXTERNAL EXAMINATION	
Skin: ( \( \seta \) Normal ( ) Excessiv ( ) Lesions ( ) Single ( ) Open ( ) Haemorrh ( ) Blister ( ) Tumour	e mucus ( ) Abnormal Colour ( ) Multiple ( ) Closec agic ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
Location:	
Wet mount/smear:	
Eyes: ( %) Normal ( ) Exor	phthalmia ( ) Cataract ( ) Haemorrhagic ( ) Parasites ( ) Bilateral
Fins: ( \( \) Normal ( ) Fray ( ) Eroded	red( ) Haemorrhagic
Wet mount/smear:	
Gills: (\(\pi\)) Normal (\(\phi\)) Pale (\(\phi\)) Necrotic (\(\phi\)) Exce (\(\phi\)) Telangiectasia (\(\phi\)) Gas (\(\phi\)) Large Parasites (\(\phi\)) Wet amount/smear:	e ( ) Mottled ( ) Haemorrhagic essive mucus ( ) Hyperplasia emboli ( ) Cysts ( ) Fungus Visible
GROSS INTERNAL EXAMINATION	
Adipose Tissue:	e ( ) Reduced ( ) Petechial Haemorrhagi: ( ) Cysts
Liver: ( ) Normal ( ) Enlarge ( ) Other Texture: ( ) Lesions: ( ) Single (	( ) Reduced Colour: ( ) Pale ( ) Mottled
( ) Necrotic ( ) Haemorrha	) Multiple ( ) Tumour gic ( ) Cyst (parasite) ( ) Cyst (Fluid)
( ) Necrotic ( ) Haemorrha Spleen:	) Multiple ( ) Tumour gic ( ) Cyst (parasite) ( ) Cyst (Fluid)  rged ( ) Reduced ( ) Raspoerry surface (fluid) ( ) Colour
( ) Necrotic ( ) Haemorrha Spleen:	gic ( ) Cyst (parasite) ( ) Cyst (Fluid)  rged ( ) Reduced ( ) Raspberry surface (fluid) ( ) Colour
( ) Necrotic ( ) Haemorrha  Spleen:	gic ( ) Cyst (parasite) ( ) Cyst (Fluid)  rged ( ) Reduced ( ) Raspoerry surface (fluid) ( ) Colour
<pre>Spleen:     ( ) Normal</pre>	gic ( ) Cyst (parasite) ( ) Cyst (Fluid)  rged ( ) Reduced ( ) Raspberry surface (fluid) ( ) Colour
<pre>Spleen:     ( ) Normal</pre>	gic ( ) Cyst (parasite) ( ) Cyst (Fluid)  rged ( ) Reduced ( ) Raspoerry surface (fluid) ( ) Colour  fluid) ( ) Distended (mucoid) c ( ) Cysts(parasite) ( ) Tumour
Spleen:  ( ) Normal ( ) Enla ( ) Cyst(parasite) ( ) Cyst  Stained smear:  Intestines: ( ) Normal ( ) Distended ( ( ) Flaccid ( ) Haemorrhagi  Kidney, Posterior: ( ) Normal ( ) Enlarge ( ) Multiple ( ) Gritty, whi ( ) Tumour	gic ( ) Cyst (parasite) ( ) Cyst (Fluid)  rged ( ) Reduced ( ) Raspperry surface (fluid) ( ) Colour  fluid) ( ) Distended (mucoid) c ( ) Cysts(parasite) ( ) Tumour

N.B. In the event that a significant number of specimen at any site have abnormalities, contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

DATE: 11/11/99

SAMPLE NO.: 153	LOCATION: 4//
SPECIES: Line	CAPTURE METHOD: Set Line
CAPTURE TIME: 09/5	EXAMINATION TIME: //34
GROSS EXTERNAL EXAMINATION	
Skin: ( ) Normal ( ) Excessive mu ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagic ( ) Blister ( ) Tumour  Location: Scor on lef	( ) Multiple ( ) Closed ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
Wet mount/smear:	
Eyes: ( \( \times \) Normal ( ) Exophtha ( ) Opaque cornea ( ) Lens los	almia ( ) Cataract ( ) Haemorrhagic st ( ) Parasites ( ) Bilateral
Fins: ( \( \) Normal ( ) Frayed	( ) Haemorrhagic
Wet mount/smear:	
Gills: ( ( ) Normal ( ) Pale ( ) Necrotic ( ) Excessive ( ) Telangiectasia ( ) Gas embode ( ) Large Parasites	ve mucus ( ) Hyperplasia oli ( ) Cysts
Wet amount/smear:	
GROSS INTERNAL EXAMINATION	
Adipose Tissue:  ( ) Normal ( ) Excessive ( ) Colour	( ) Reduced ( ) Perechial Haemorrhagis ( ) Cysts
( ) Other Texture:	( ) Reduced Colour: ( ) Pale ( ) Mottled altiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen:	d
( ) Cyst(parasite) ( ) Cyst (fl	d ( ) Reduced ( ) Raspberry surface
Stained smear:	
<pre>Intestines:     ( ) Normal ( ) Distended ( flu     ( ) Flaccid ( ) Haemorrhagic</pre>	aid) ( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour
<pre>Ridney, Posterior:     ( ) Normal ( ) Enlarge     ( ) Multiple ( ) Gritty, white     ( ) Tumour</pre>	( ) Lesions ( ) Single ( ) Cyst (parasite) ( ) Cyst (fluid)
Stained smear:	
OTHER:	
N.B. In the event that a significant numb contractor is asked to immediately Phone: 427-1742 or fab to 422-3055	er of specimen at any site have abnormalities, to notify the Study Office.

#### Append:

#### NORTHERN RIVER BASINS STUDY EXAMINATION SHEETS GROSS PATHOLOGY

				GI	Ross Pai	HOLOGY				
					DATE	: _//	111/92	_		
SAMPLE	. NO.: _	154			LOCA	rion: _	711			
SPECIE	s: _	Ling			CAPT	TRE NETT	10D:	et Li	05	<del></del>
CAPTUR	E TIME:	08	45						1/37	
GROSS	De GUDIÇA (PA	L EXAMINAT	!ION							
Skin:	( ) L ( ) O ( ) 3	ormal esions pen lister on:	( ) Si ( ) Ha ( ) Tu	ngle emorrhagi mour	ic	( ) M ( ) N ( ) L	ultiple ecrotic ost Sca.	( les (	) Close ) Ulcer ) Abras	
					n Ipt	+ 5-0	<u>r</u>			<del></del>
	Wet mo	int/smear:				<del></del>				
		osdne coluctuation								
Fins:	( \( \) No	ormal coded	(	) Frayed		( ) De	- eformed	( )	Haemorina	agic
	Wet mou	int/smear:								
	( ) Ne ( ) Te ( ) La	ormal ecrotic elangiectas urge Parasi ount/smear:	sia ( ites	) Excess ) Gas em	ive muc	( ) C; ( ) Fi	ottled ysts ingus Vi	( ) ( )	Haemorrha Hyperplas	agic
GROSS I	NTERNAL	EXAMINATI	CON							
Adipose	Tissue ( ) No	ermal	( ) Exc	essive	( ) 2	Reduced Cysts	(	) Pete	echial Ha	emorrhagi
Liver:	( ) Ot ( ) Le	rmal her sions: (	Te ) Singl	exture:	Multiple	( )	Tumour			
Spleen:	( ) No	rmal st(parasit	(e) (	) Enlarge	ed fluid)	( ) Re	duced	( ) =	Raspberry	surface
	Stained	smear: _								
Intesti	nes: ( ) No ( ) Fl	rmal ( accid (	) Diste ) Haemo	ended ( fl errhagic	luid)	( ) Di	stended sts(para	(mucoi asite)	Ld)	Tumour
Kidney,	Poster ( ) No ( ) Mu ( ) Tu	rmal ( ltiple (	) Enlar ) Gritt	ge y, white	( ) <u>I</u>	esions 'yst (pa	rasite)	(	) Single ) Cyst (	fluid)
	Stained	emear.								

N.B. In the event that a significant number of specimen at any site have abnormalities, to contractor is asked to immediately notify the Study Office.

Phone: 427-1742 or fab to 422-3055

OTHER:

		1.	10
DATE:	11	111	17.

SAMPLE NO.:	LOCATION:
SPECIES: Linj	CAPTURE METHOD: 5/ Line
CAPTURE TIME: 0815	EXAMINATION TIME: //4/0
GROSS EXTERNAL EXAMINATION	
Skin: ( \( \) Normal ( ) Excessive mu ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagic ( ) Blister ( ) Tumour	( ) Abnormal Colour ( ) Multiple ( ) Closed ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
Location:	
Wet mount/smear:	
Eyes: ( \( \) Normal ( ) Exophth. ( ) Opaque cornea ( ) Lens los	
Fins: ( ) Normal ( ) Frayed_ ( ) Eroded	( ) Haemorrhagic
Wet mount/smear:	
Gills: ( ) Normal ( ) Pale ( ) Necrotic ( ) Excession ( ) Telangiectasia ( ) Gas embode ( ) Large Parasites	ve mucus ( ) Hyperplasia
Wet amount/smear:	
GROSS INTERNAL EXAMINATION	
Adipose Tissue:  ( ) Normal ( ) Excessive ( ) Colour	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
( ) Other Texture: ( ) Lesions: ( ) Single ( ) Mu	ultiple ( ) Tumour
( ) Mediotic ( ) premotinging	( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen:	
Spleen:  ( ) Normal ( ) Enlarged ( ) Cyst(parasite) ( ) Cyst (fl	d ( ) Reduced ( ) Raspberry surface
Spleen:	
Spleen:  ( ) Normal ( ) Enlarged ( ) Cyst(parasite) ( ) Cyst (fl	
Spleen:  ( ) Normal ( ) Enlarged ( ) Cyst(parasite) ( ) Cyst (f)  Stained smear:  Intestines: ( ) Normal ( ) Distended ( flu ( ) Flaccid ( ) Haemorrhagic  Kidney, Posterior:	d ( ) Reduced ( ) Raspberry surface Luid) ( ) Colour
Spleen:     ( ) Normal ( ) Enlarged     ( ) Cyst(parasite) ( ) Cyst (fl  Stained smear:  Intestines:     ( ) Normal ( ) Distended ( flu     ( ) Flaccid ( ) Haemorrhagic  Kidney, Posterior:     ( ) Normal ( ) Enlarge     ( ) Multiple ( ) Gritty, white	d () Reduced () Raspberry surface Luid) () Colour  Luid) () Distended (mucoid) () Cysts(parasite) () Tumour  () Lesions () Single () Cyst (parasite) () Cyst (fluid)
Spleen:  ( ) Normal ( ) Enlarged ( ) Cyst(parasite) ( ) Cyst (fill  Stained smear:  Intestines:  ( ) Normal ( ) Distended ( fill ( ) Flaccid ( ) Haemorrhagic  Ridney, Posterior:  ( ) Normal ( ) Enlarge ( ) Multiple ( ) Gritty, white ( ) Tumour	d () Reduced () Raspberry surface Luid) () Colour  Luid) () Distended (mucoid) () Cysts(parasite) () Tumour  () Lesions () Single () Cyst (parasite) () Cyst (fluid)

contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

### NORTHERN RIVER BASINS STUDY

		EXAMINATION SHEETS GROSS PATEGLOGY
		DATE: 11/1/92
SAMPL	E NO.:	LOCATION:
SPECII	es: Ling	CAPTURE METHOD: Sr / Line
	RE TIME:	EXAMINATION TIME:///o
GROSS	EXTERNAL EXAMINATION	
Skin:	( X) Normal ( ) ( ) Lesions ( ) ( ) Open ( ) ( ) Blister ( )	Excessive mucus ( ) Abnormal Colour Single ( ) Multiple ( ) Closec Haemorrhagic ( ) Necrotic ( ) Ulcer Tumour ( ) Lost Scales ( ) Abrasions
	Location:	
	Wet mount/smear:	
Eyes:	( / ) Normal ( ) Opaque cornea	( ) Exophthalmia ( ) Cataract ( ) Haemorrhagic ( ) Lens lost ( ) Parasites ( ) Bilateral
Fins:	( () Normal ( ) Eroded	( ) Frayed ( ) Haemorrhagic
	Wet mount/smear:	
Gills:	( \( \) Normal ( \( \) Necrotic ( ) Telangiectasia ( ) Large Parasites _	( ) Pale ( ) Mottled ( ) Haemorrhagic ( ) Excessive mucus ( ) Hyperplasia ( ) Gas emboli ( ) Cysts ( ) Fungus Visible
	Wet amount/smear:	
GROSS :	INTERNAL EXAMINATION	
Adipos	e Tissue: ( ) Normal ( ) I ( ) Colour	Excessive ( ) Reduced ( ) Petechial Haemorrhagi
	( ) Other ( ) Sin	Enlarge ( ) Reduced Colour: ( ) Pale ( ) Mottle Texture: ngle ( ) Multiple ( ) Tumour Haemorrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen:		( ) Enlarged ( ) Reduced ( ) Raspberry surface ( ) Cyst (fluid) ( ) Colour
	Stained smear:	
Intesti		stended ( fluid) ( ) Distended (mucoid) emorrhagic ( ) Cysts(parasite) ( ) Tumour

OTHER: In the event that a significant number of specimen at any site have abnormalities, N.B. contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

( ) Multiple ( ) Gritty, white ( ) Cyst (parasite) ( ) Cyst (fluid)

( ) Normal ( ) Enlarge ( ) Lesions

Kidney, Posterior:

( ) Tumour

Stained smear: \_

		DATE: 11/11/92	
SAMPLE NO.	:	LOCATION: ///	
SPECIES:		CAPTURE METHOD:	set Line
CAPTURE TI	DE:	EXAMINATION TIME:	1143
GROSS EXTE	RNAL EXAMINATION		
Skin: (X	) Normal ( ) Excessive mu ) Lesions ( ) Single ) Open ( ) Haemorrhagic ) Blister ( ) Tumour	cus ( ) Abnormal Co ( ) Multiple ( ) Necrotic ( ) Lost Scales	lour ( ) Closed ( ) Ulcer ( ) Abrasions
Loc	ation:		
Wet	mount/smear:		
Eyes: ( *	) Normal ( ) Exophth ) Opaque cornea ( ) Lens lo	almia ( ) Cataract ( st ( ) Parasites (	) Haemorrhagic ) Bilateral
Fins: ( \	) Normal ( ) Frayed_ ) Eroded	( ) Deformed	) Haemorrhagic
Wet	mount/smear:		
Gills: (X	) Normal ( ) Pale ) Necrotic ( ) Excessi ) Telangiectasia ( ) Gas emb ) Large Parasites	( ) Mottled ( ve mucus ( oli ( ) Cysts ( ) Fungus Visih	) Haemorrhagic ) Hyperplasia
Wet	amount/smear:		
GROSS INTE	RNAL EIAMINATION		
Adipose Ti: ( (	ssue: ) Normal ( ) Excessive ) Colour	( ) Reduced ( ) ( ) Cysts	Petechial Haemorrhagic
(	) Normal ( ) Enlarge ) Other Texture: ) Lesions: ( ) Single ( ) M ) Necrotic ( ) Haemorrhagic	ultiple ( ) Tumour	
	) Normal ( ) Enlarge ) Cyst(parasite) ( ) Cyst (f.	d ( ) Reduced ( luid) ( ) Colour	) Raspberry surface
Sta:	ined smear:		
Intestines ( (	: ) Normal ( ) Distended ( flu ) Flaccid ( ) Haemorrhagic	uid) ( ) Distended (m ( ) Cysts(parasi	nucoid) te) ( ) Tumour
	starior: ) Normal ( ) Enlarge ) Multiple ( ) Gritty, white ) Tumour	( ) Lesions ( ) Cyst (parasite)	( ) Single ( ) Cyst (fluid)
Sta.	ined smear:		_

N.B. In the event that a significant number of specimen at any site have abnormalities, to contractor is asked to immediately notify the Study Office.

Phone: 427-1742 or fab to 422-3055

DATE: 11/11/92

SAMPLE	NO.: 158 LOCATION: 411
SPECIE	capture method: Set Line
CAPTUR	E TIME: COSOO EXAMINATION TIME:
	EXTERNAL EXAMINATION
Skin:	( ) Normal ( ) Excessive mucus ( ) Abnormal Colour ( ) Lesions ( ) Single ( ) Multiple ( ) Closed ( ) Open ( ) Haemorrhagic ( ) Necrotic ( ) Ulcer ( ) Blister ( ) Tumour ( ) Lost Scales ( ) Abrasions
	Location:
	Wet mount/smear:
Eyes:	( ) Normal ( ) Exophthalmia ( ) Cataract ( ) Haemorrhagic ( ) Opaque cornea ( ) Lens lost ( ) Parasites ( ) Bilateral
Fins:	( ∠ ) Normal ( ) Frayed ( ) Haemorrhagic ( ) Eroded ( ) Deformed
	Wet mount/smear:
Gills:	( ∠) Normal ( ) Pale ( ) Mottled ( ) Haemorrhagic ( ) Necrotic ( ) Excessive mucus ( ) Hyperplasia ( ) Gas emboli ( ) Cysts ( ) Large Parasites ( ) Fungus Visible
	Wet amount/smear:
GROSS 1	INTERNAL EXAMINATION
Adipose	Tissue:  ( ) Normal ( ) Excessive ( ) Reduced ( ) Petechial Haemorrhagi ( ) Colour ( ) Cysts
Liver:	( ) Normal ( ) Enlarge ( ) Reduced Colour: ( ) Pale ( ) Mottles ( ) Other Texture: ( ) Lesions: ( ) Single ( ) Multiple ( ) Tumour ( ) Necrotic ( ) Haemorrhagic ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen:	( ) Normal ( ) Enlarged ( ) Reduced ( ) Raspberry surface ( ) Cyst(parasite) ( ) Cyst (fluid) ( ) Colour  Stained smear:
Intesti	nes: ( ) Normal ( ) Distended ( fluid) ( ) Distended (mucoid) ( ) Flaccid ( ) Haemorrhagic ( ) Cysts(parasite) ( ) Tumour
Kidney,	Posterior: ( ) Normal ( ) Enlarge ( ) Lesions ( ) Single ( ) Multiple ( ) Gritty, white ( ) Cyst (parasite) ( ) Cyst (fluid) ( ) Tumour
	Stained smear:
OTHER:	
N.B.	In the event that a significant number of specimen at any site have abnormalities, contractor is asked to immediately notify the Study Office. Phone: 427-1742 or fab to 422-3055

### Appendix E. Terms of Reference

		1

#### NORTHERN RIVER BASINS STUDY

#### SCHEDULE OF TERMS OF REFERENCE

PROJECT 3118-B1 SPECIAL BURBOT COLLECTIONS (PEACE RIVER DRAINAGE - TO INCLUDE SITES HISTORICALLY USED BY NATIVE PEOPLES

#### DESCRIPTION

The Northern River Basins Study has as one of its main objectives, the determination of dioxin and furan and other contaminant concentrations in fish throughout the Peace, Athabasca and Slave River systems. Additional burbot collections are required for analysis of liver and muscle tissues to complete a geographic overview on the distribution of contaminants in this species. Other fish species used for food will be collected only as incidental mortalities.

In 1990, the Fish and Wildlife Division of Alberta Forestry, Lands and Wildlife collected 771 fish from 23 sites in the Athabasca and Peace River basins. Seventeen burbot from this collection were analyzed for dioxins and furans. The results have shown burbot to be sensitive bioaccumulators of dioxins/furans. These limited analyses from the Smoky-Wapiti Rivers have resulted in the issuance of a public health fish consumption advisory for the Peace River and its tributaries. Major data gaps exist for the Peace River. Given the general understanding that burbot livers are a preferred food source for residents along the Peace River, particularly natives, there is need for more burbot tissue analysis to better delineate the specific areas of concern.

Of initial importance is the need to define the extent of contamination in fish stocks utilized by local communities along the Peace River. Although preliminary collection sites have been identified and some collections were done this past spring, this project will actively solicit community involvement in site selection. The services of the Fish and Wildlife Division's Native Liaison Officer (Peace River) will be used to establish community contacts (preliminary list attached) as well as local boat operators/guides and fishermen. The contractor will be responsible for following up the community contact and retaining the necessary services to make the fish collections.

This project is also designed to benefit from the Fish and Wildlife Division's Resource Management Assistant Program. The RMA Program is directed at providing native and metis young people with an opportunity to gain a technical education from an accredited technical institute/college as well as "hands-on" experience in the field of wildlife management. Involvement of an RMA will be a condition of the project's contract and will work for the contractor in making the field collections.

The samples will be provided to Project 2343 for analysis.

#### **GENERAL OBJECTIVES**

- A. To collect, preserve and transport burbot taken at various sites along the Peace River and three of its tributaries, preferably from sites traditionally fished by native peoples.
- B. To prepare collected fish samples in accordance with prescribed protocols, and to deliver to Alberta Environment for temporary storage.

#### TERMS OF REFERENCE

#### Contractor will:

- 1. Provide the equipment and supplies to collect, preserve, and transport fish. (The Northern River Basins Study Office will supply Fisheries and Oceans Canada's recommended contaminant free bags for fish).
- 2. Coordinate with the Fish and Wildlife Division Native Liaison Officer (Peace River) obtaining direction from native communities adjacent to the Peace River as to the location of traditional fish harvest areas.
- 3. Arrange to pay, in a timely fashion, the Resource Management Assistant (to be identified by the Native Liaison Officer in Peace River) and local boat operators hired to provide transportation, food, lodging and guide services.
  - a) The Resource Management Assistant will be paid at normal government rates. Subsistence will be paid at the government subsistence rate when food and lodging is not supplied.
- 4. Collect 18 burbot of larger adult sizes from a minimum of 3 sample sites at or near the locations noted below, or as amended by input received through community input.
  - a) Smoky River near Canfor Cold Creek Crossing 67-4-W6.
  - b) Smoky River where Highway 34 crosses the river.
  - c) Smoky River near Watino Flats.
  - d) Wapiti River near or below Procter & Gamble Cellulose mill.
  - \* e) Peace River near Dunvegan.
    - f) Peace River near but downstream of Daishowa mill (left bank looking downstream).
    - g) Peace River near confluence with Notikewin.
  - \* h) Peace River near Carcajou.
    - i) Peace River near Beaver Ranch Indian Reserve.
    - j) Peace River near Jean d'Or Indian Reserve.
    - k) Peace River near Fox Lake Indian Reserve.
  - \* Collections at these sites will be dependent upon collections from other projects, as a result communication with the Northern River Basins Study Office will be required prior to collections.

- 5. Provide detailed records of all species captured, gear used, catch per unit effort, individual fish length and general habitat conditions.
- 6. Collect, preserve, label and transport the samples in accordance with the protocols outlined in Schedule B.
- 7. Collect fish using capture methods and equipment required to honour the protocols described in Schedule B.
- 8. Transport and deliver in a timely and competent manner, fish samples, according to procedures outlined in Schedule B, all the while ensuring the integrity and continuity (i.e., document possession and transfer) of the samples are safeguarded.
- 9. Complete field collection prior to freeze-up or November 30, 1992, whichever comes first, and endeavour to complete the collections in the shortest interval of time practical.
- 10. Prepare DRAFT and FINAL reports in a generally accepted format for reporting a project of this kind. The reports are to include among other things:
  - a) maps of traditional use/collections (recommend mylars of 1:50000 NTS maps noting fish sample sites);
  - b) records of community contacts providing information on traditional use. Record to include information pertinent to being able to recontact the individual, e.g. date of contact, name, address, phone number, as well as summary of pertinent information;
  - c) methods used to capture, process and transport samples;
  - d) specifics on each sample taken as to date, location (legal land, latitude and longitude), method of capture, species, length of time to process a specific sample from time to capture, length-weight and age of fish, general condition of fish (externally) making note of any abnormalities. Complete the Gross Pathology Sheet (Appendix 1);
  - e) analysis of field methods and collections, with recommendations on methods and direction of doing similar collections;
  - f) photographic documentation of methods and equipment.

Ten (10) copies of the draft report are to be received by the Northern River Basins Study office by December 11, 1992.

Thirty (30) copies of the final report are to be received by the Northern River Basins Study office two weeks after the receipt of comments on the DRAFT report.

#### NORTHERN RIVER BASINS STUDY

### PROJECT 3118-B1 SPECIAL BURBOT COLLECTIONS (PEACE RIVER DRAINAGE - TO INCLUDE SITES HISTORICALLY USED BY NATIVE PEOPLES

### SCHEDULE B COLLECTION PROTOCOL

#### STANDARD OPERATING PROCEDURES

- 1. Fish may be collected using a variety of techniques including:
  - Electro-fishing
  - Trap nets
  - Gill nets
  - Seines
  - Set lines
  - Angling
- 2. A sample numbering system must be designed and used to facilitate tracking of sub-samples from the same fish.
- 3. Record the fish length and weight to nearest mm and 1 gm, respectively.
- 4. Examine fish for external lesions and record any abnormalities. Complete the Gross Pathology Sheet (Appendix 1).
- 5. The use of dry ice for initial freezing and shipping is mandatory unless alternative arrangements are approved by the Study Office's project representative.
- 6. The use of sturdy styrofoam coolers is most practical and is recommended. Styrofoam coolers of weak construction may not assure constant freezing and may break down during shipping. Coleman type coolers may be used but not necessarily be returned immediately for repetitive use. The Contractor is responsible for picking up coolers when notified by Alberta Environment.
- 7. Place dry ice both on top and bottom of coolers to assure that no freeze-thaw cycles will occur during transport.
  - N.B.: Any freeze-thaw, however moderate it may be, will cause contaminant migration within a sample and this may affect contaminant concentration levels in tissues.
- 8. Ship frozen samples as soon as possible or, if not possible, samples must be kept frozen in a freezer at -20°C until shipping.

#### SCHEDULE B

Any contractor/consultant or government personnel that is transporting fish to Edmonton must contact one of the following people before leaving place of origin:

Earle Baddaloo Work: (403) 427-6102

Home: (403) 434-8967

Sub Ramamoorthy Work: (403) 427-6102

Home: (403) 435-8137

If the above personnel are not in, a message indicating fish is on its way and approximate time of arrival in Edmonton <u>must</u> be left with the secretary (in office) between 8:15 a.m. and 4:30 p.m., or on an answering machine (home) after 4:30 p.m., before leaving place of origin.

Upon arrival in Edmonton with specimens from Northern River Basins Study projects, contractor(s) or consultant(s) should contact one of the above personnel again.

If the above personnel cannot be contacted on a weekday (Monday to Friday), contractor(s)/consultant(s) should proceed directly to VERSACOLD only between 8:00 a.m. and 4:00 p.m. Drop cargo (fish) off at VERSACOLD under the name of Earle Baddaloo, Alberta Environment. DO NOT LEAVE FISH OUTSIDE OF VERSACOLD!!

#### VERSACOLD IS OPEN BETWEEN 0800 AND 1600 HOURS. MONDAY THROUGH FRIDAY.

ADDRESS: 9002 - 20 Street

Edmonton, Alberta

TELEPHONE: (403) 464-1770 CONTACT: Mr. Merve Permann

If fish tissue arrive after 4:00, contractor(s)/consultant(s) must make <u>every effort</u> to contact Mr. Baddaloo or Dr. Ramamoorthy so that alternate storage for the night or weekend may be found.

It is, therefore, imperative to call contacts before leaving place of origin so that they (contacts) will be aware of the transport activity and can make arrangements for the arrival of the specimens.

#### **WEEKEND TRANSPORT**

If fish has to be transported to Edmonton on the weekend (Saturday, Sunday or public holiday), the contractor(s)/consultant(s) or government personnel should contact Mr. Baddaloo or Dr. Ramamoorthy on the last working day before the weekend or public holiday. (If contacts are not available, messages must be left with the secretary.) Again, before leaving place of origin, please call contacts at home and leave a message if they are not there; and upon arrival in Edmonton, please call contact again.

#### SCHEDULE B

- 9. Any deviation from the above established protocol/procedure should be justified and accounted for in writing and a detailed description of what was done is to be submitted with the fish sample; this is to assure credibility and validity of results.
- 10. Develop a photographic record of equipment and techniques to capture and process fish samples. As appropriate, take close-up photographs of fish exhibiting external abnormalities. Use 35 mm, 100 ASA Fuji slide film in a camera having a 50-55 mm lens. Maintain records to associate photographs with sample material.

#### NORTHERN RIVER BASINS STUDY

### PROJECT 3118-B1 SPECIAL BURBOT COLLECTIONS (PEACE RIVER DRAINAGE - TO INCLUDE SITES HISTORICALLY USED BY NATIVE PEOPLES

### SCHEDULE C DUE DATES FOR DELIVERABLES

Draft Report (supply 10 copies)

December 11, 1992

2. Final Project Report within 2 weeks of comments being received on Draft Report.

Supply 30 copies and the camera-ready original of the final draft and reports as well as electronic disks (Word Perfect)

#### **PAYMENT**

- 1. Subject to prior approval from the Department, payments will be made based on monthly invoices submitted up to 90 percent to the maximum contract amount of \$ .
  - (a) Subject to prior approval from the Department travel expenses incurred in performing the services will be paid as follows:
    - (i) accommodation at cost on submission of receipts;
    - (ii) transportation at cost on submission of receipts;
    - (iii) meals at cost on submission of receipts or as specified below without receipts:

_	Breakfast	\$ 5.80
_	Lunch	\$ 7.40
_	Dinner	\$13.50

- (b) Incidental expenses incurred in performing the services will be reimbursed at cost on submission of receipts.
- (c) Travel by private vehicle will be reimbursed at the rate of \$0.27 per kilometre and this shall include fuel and maintenance.
- 2. The final payment, not greater than 10 percent of the contract amount, will be made upon acceptance of the final report.

#### SCHEDULE C

#### REPORTING

- 1. The Northern River Basins Study must be provided with (30) hard copies of the final report and (1) camera ready copy, as well as a  $3\frac{1}{2}$ " electronic disk (Word Perfect).
- 2. Specific data within the reports must be placed into D-Base format language for incorporation into other government data storage facilities.
- 3. Photographs, prefer 35 mm, 200 ASA Fuji slide film in a camera having a 50-55 mm lens.

# NORTHERN RIVER BASINS STUDY PROPOSAL EVALUATION

PROJECT: 3118-B1 Special Burbot Collections (Peace River Drainage - To Include Sites Historically Used By Native Peoples)

POINTS AWARDED

Date

### 3 1510 00135 5727

#### NORTHERN RIVER BASINS STUDY EXAMINATION SHEETS GROSS PATHOLOGY

		DATE:
SAMPLE	NO.:	LOCATION:
SPECIE	s:	CAPTURE METHOD:
CAPTUR	E TIME:	EXAMINATION TIME:
GROSS I	EXTERNAL EXAMINATION	
Skin:	( ) Normal ( ) Excessive mu ( ) Lesions ( ) Single ( ) Open ( ) Haemorrhagic ( ) Blister ( ) Tumour	cus ( ) Abnormal Colour ( ) Multiple ( ) Closed ( ) Necrotic ( ) Ulcer ( ) Lost Scales ( ) Abrasions
	Location:	
	Wet mount/smear:	
Eyes:	( ) Normal ( ) Exophth ( ) Opaque cornea ( ) Lens lo	almia ( ) Cataract ( ) Haemorrhagic st ( ) Parasites ( ) Bilateral
Fins:	( ) Normal ( ) Frayed_ ( ) Eroded	( ) Haemorrhagic
	Wet mount/smear:	
Gills:	( ) Normal ( ) Pale ( ) Necrotic ( ) Excession ( ) Telangiectasia ( ) Gas emboration ( ) Large Parasites	( ) Mottled ( ) Haemorrhagic ve mucus ( ) Hyperplasia oli ( ) Cysts ( ) Fungus Visible
	Wet amount/smear:	
GROSS :	INTERNAL EXAMINATION	
Adipos	Tissue: ( ) Normal ( ) Excessive ( ) Colour	( ) Reduced ( ) Petechial Haemorrhagic ( ) Cysts
Liver:	( ) Other Texture: ( ) Lesions: ( ) Single ( ) Mu	( ) Reduced Colour: ( ) Pale ( ) Mottled  altiple ( ) Tumour ( ) Cyst (parasite) ( ) Cyst (Fluid)
Spleen	( ) Normal ( ) Enlarged ( ) Cyst(parasite) ( ) Cyst (fi	d ( ) Reduced ( ) Raspberry surface
	Stained smear:	<del></del>
Intesti	( ) Normal ( ) Distended ( flu	uid) ( ) Distended (mucoid) ( ) Cysts(parasite) ( ) Tumour
Kidney,	<pre>, Posterior:   ( ) Normal</pre>	( ) Lesions ( ) Single ( ) Cyst (parasite) ( ) Cyst (fluid)
	Stained smear:	
OTHER:		

N.B. In the event that a significant number of specimen at any site have abnormalities, the contractor is asked to immediately notify the Study Office.

Phone: 427-1742 or fab to 422-3055