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Project No. NSD09299.06

January 28, 2008

Mr. Chris Moir  
Nova Scotia Department of  
Transportation and Public Works  
1672 Granville Street  
Johnson Building, 3rd Floor  
Halifax, NS B3J 3Z8

Dear Mr. Moir:

**Re: Fisheries Resource Study – Five Island Lake Watershed 2007**

At the request of Nova Scotia Department of Transportation and Public Works (NSTPW), Jacques Whitford Limited (JWL) undertook a fish study of selected lakes in the Woodens River watershed. The purpose of the work was to assess changes in polychlorinated biphenyl (PCB) concentrations in local fish populations. PCB concentrations in fish were compared to the results of previous fish studies conducted by Jacques Whitford in 1994, 2001, 2003, and 2005.

**BACKGROUND**

The Associated Metal and Electronic Salvage Yard in the community of Five Island Lake was in operation for approximately 25 years before being closed by the Nova Scotia Department of Environment (NSDOE) in late 1989 and designated an Orphan Site. As a result of certain operating practices, site contamination was widespread, including polychlorinated biphenyl (PCB), metals, and dioxin and furan impacts in soil and groundwater on site and sediment and surface water in the Woodens River watershed, especially in the adjacent Five Island Lake. As a result of this contamination, impacts on PCB concentrations in fish muscle from Five Island Lake have been deemed significant.

**SCOPE OF STUDY**

Fish were collected from Five Island, Hubley Big, and Sheldrake lakes (Figure 1-1). There do not appear to be significant restrictions to fish passage among the lakes within the Woodens River watershed, so it is possible that fish originating in Five Island Lake could be found in other lakes within the watershed.

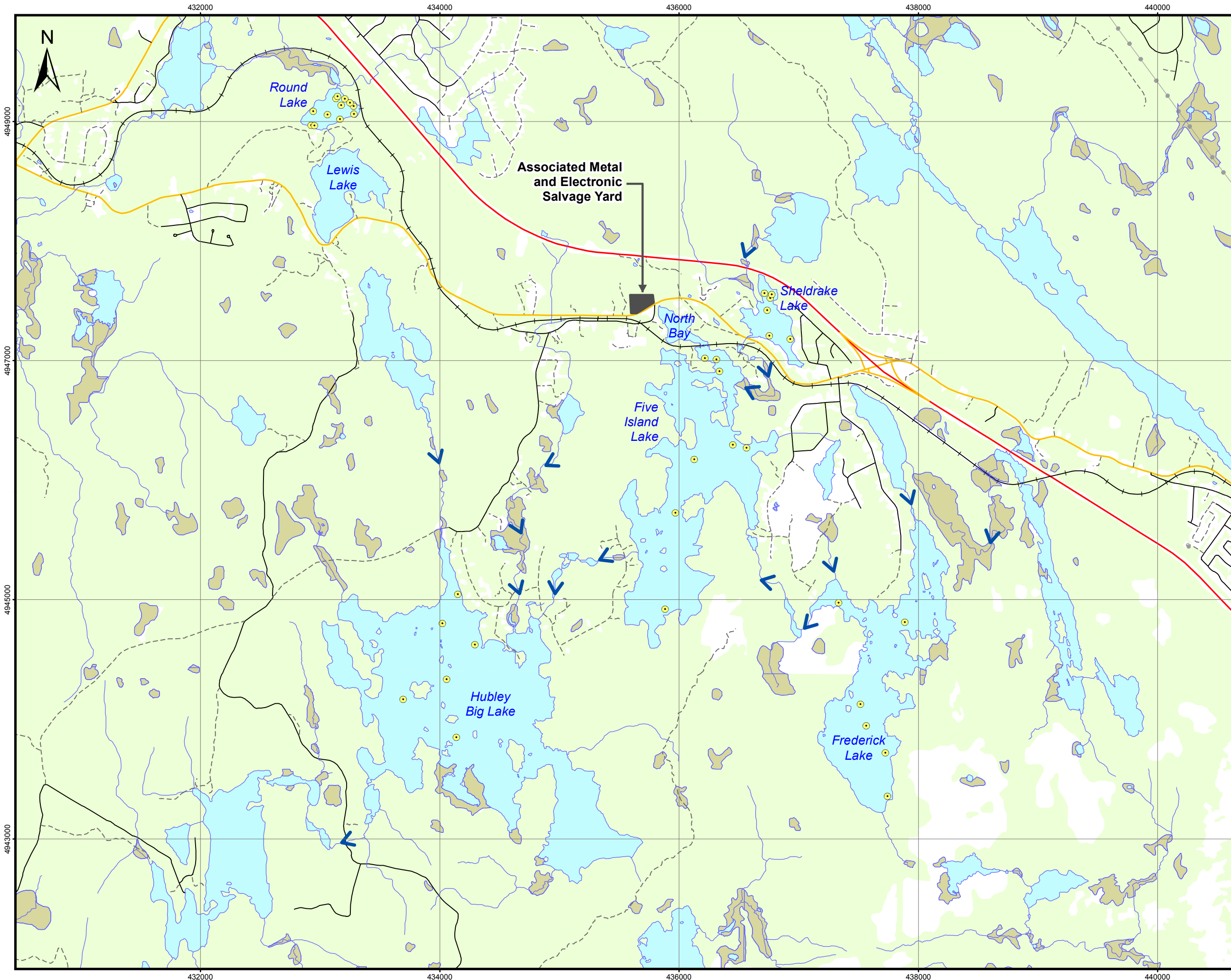
A total of 45 fish tissue (muscle or whole body) samples were submitted for PCB analysis during the 2007 study from the above mentioned lakes. In some cases, composite samples consisting of tissue from two individuals of the same size class were submitted as a single sample, in order to provide enough tissue for analysis.

Based on the results of the 2005 study, it was concluded (JW 2005) there was no further need to monitor PCB concentrations in fish from Frederick and Round Lakes. No PCBs have been detected in fish from Frederick Lake since 1994 and PCBs have only been detected (at low levels) in the stocked rainbow trout from Round Lake.



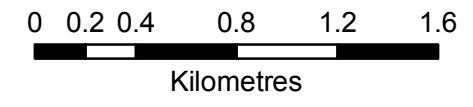
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Whitford**

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of Exceptional  
Solutions**



**Figure 1-1**  
**Location of Study Lakes and Gillnetting Locations**

- Map Features**
- Flow Direction
  - Gillnetting Locations
  - Major Highway
  - Collector Highway
  - Paved Road
  - Unpaved Road
  - Rail
  - Utility Line
  - Watercourse
  - Waterbody
  - Wetland
- Forestry**
- Cleared
  - Forested



Map Parameters  
 Projection: UTM-NAD83-Z20  
 Scale 1:30,000  
 Date: April 25th, 2007  
 Project No.: SD09299-6-1



## METHODOLOGY

Sample collection details from each lake are described as follows:

- Seventeen samples were collected from Five Island Lake on June 5, 2007. Five of the seventeen samples caught were brook trout, six were white suckers, and six were yellow perch. A composite sample of 16 banded killifish was collected from Five Island Lake on June 25, 2007. All specimens over the license quota were released live back into the lake.
- Fourteen samples were collected in Hubley Big Lake between June 6, 2007 and June 25, 2007. Four of the fourteen samples caught were brook trout, five were white suckers, and five were yellow perch. All specimens over the license quota were released live back into the lake.
- Twelve samples were collected in Sheldrake Lake on June 6, 2007. Six of the twelve samples caught were white suckers, and six were yellow perch. A composite sample of 25 banded killifish was collected from Sheldrake Lake on June 25, 2007. No brook trout were caught in Sheldrake Lake. All specimens over the license quota were released live back into the lake.

Fish of the same species from the same lakes were placed together in individual plastic bags and stored on ice in coolers. At the completion of sample collection each day, the samples were transported to the JWL office, refrigerated, and processed within two days of collection.

## RESULTS

Fish measurement data (length, weight, etc.) from 1994 to 2007 can be found in Attachment 1. Fish PCB concentrations from 1994 to 2007 can be found in Attachment 2. The laboratory certificate from the 2007 sample submission can be found in Attachment 3. The following results section summarizes the data for the samples caught in 2007 as compared to previous years in the individual lakes: Five Island, Hubley Big, and Sheldrake.

### **Brook Trout**

The sample sizes and average and maximum muscle PCB concentrations for brook trout in Five Island Lake are shown below in Table 1. The average brook trout muscle PCB concentration in Five Island Lake in 2007 was between the consumption guidelines of 0.153 and 1.22 mg/kg provided in the *Guide to Eating Ontario Sport Fish, 2007-2008 Edition* (dated 2007), indicating that consumers of these fish should exercise caution and limit their consumption.

**TABLE 1 Average and Maximum PCB Muscle Concentrations for Brook Trout in Five Island Lake**

Year	n	Muscle	
		Average (mg/kg)	Maximum (mg/kg)
1994	3	2.02	4.15
2001	3	0.28	0.34
2003	6	1.46	4.10
2005	6	1.62	4.70
2007	5	0.843	1.6

The number of brook trout sampled and the average and maximum muscle PCB concentrations in Hubley Big Lake in 2007 are shown in Table 2. The four brook trout muscle PCB concentrations from Hubley Big Lake in 2007 were all below the Ontario consumption guidelines of 0.153 and 1.22 mg/kg.

**TABLE 2 Average and Maximum PCB Muscle Concentrations for Brook Trout in Hubley Big Lake**

Year	n	Muscle	
		Average (mg/kg)	Maximum (mg/kg)
1994	5*	0.15	0.27
2001	1	0.09	0.09
2003	6	0.046	0.07
2005	2	0.053	0.08
2007	4	0.057	0.08

No brook trout were caught in Sheldrake Lake in 2007. The brook trout muscle PCB concentrations in Sheldrake Lake in 2003 and 2005 (Table 3) were in the range of the Ontario consumption guidelines of 0.153 and 1.22 mg/kg, suggesting that caution should be exercised in consuming trout from Sheldrake Lake. The presence of PCBs in brook trout collected from Sheldrake Lake strongly suggests that brook trout may be migrating upstream from Five Island Lake to Sheldrake Lake, carrying a PCB body burden with them.

**TABLE 3 Average and Maximum PCB Muscle Concentrations for Brook Trout in Sheldrake Lake**

Year	n	Muscle	
		Average (mg/kg)	Maximum (mg/kg)
1994	0	-	-
2001	0	-	-
2003	1	2.8	2.8
2005	1	0.86	0.86
2007	0	-	-

Data from different lakes and years were compared using an analysis of variance (ANOVA), which treats each lake-year of data as an independent set of observations (treatment), and each fish as a true replicate. The muscle PCB concentrations were log<sub>10</sub> transformed prior to analysis, to improve the normality of the data. The ANOVAs were followed by Tukey's Honestly Significant Differences (HSD) multiple comparison test where the ANOVA indicated the presence of one or more significant differences (p<0.05), to identify specific

differences between observed muscle tissue PCB concentrations for the various lakes and years.

For trout muscle tissues, the ANOVA was performed on lakes where trout were collected in sufficient number, these included: Five Island (FI), Frederick (FR), and Hubley Big (HU). For these three lakes (with the exception of Frederick Lake in 2003 and 2007), trout muscle tissues were collected in each of the years 1994, 2001, 2003, 2005 and 2007.

The ANOVA (Table 4) indicated the presence of significant differences ( $p < 0.05$ ), and Tukey's HSD test (Table 5) was used to characterize the differences. In general terms, trout muscle from Five Island Lake contained significantly ( $p < 0.05$ ) higher PCB concentrations than trout muscle from most other lakes and years, with the exception of 2007. Even though average muscle PCB concentrations in 2007 are lower than those observed in 1994, 2003 and 2005, statistically, there were no significant differences within Five Island Lake between the years.

**TABLE 4 ANOVA for Log<sub>10</sub>-transformed PCB Concentration in Trout Muscle Muscle**

Source	Sum of Squares	df	Mean Square	F-ratio	Probability
Lake-Year	149.109	12	12.426	8.957	<0.001
Error	113.757	82	1.387	-	-

**TABLE 5 Tukey's HSD test for Log<sub>10</sub>-transformed PCB Concentration in Trout Muscle Muscle**

Lake Year	Lake Year Comparison	Difference	p-value*
FI1994	> FR2005	2.319	0.022
FI1994	> HU2007	2.874	0.026
FI2003	> FR1994	2.746	<0.001
FI2003	> FR2001	2.984	<0.001
FI2003	> FR2005	3.172	<0.001
FI2003	> HU1994	2.321	0.015
FI2003	> HU2005	2.432	0.040
FI2003	> HU2003	2.863	<0.001
FI2003	> HU2007	3.727	<0.001
FI2005	> FR1994	2.726	<0.001
FI2005	> FR2001	2.965	<0.001
FI2005	> FR2005	3.153	<0.001
FI2005	> HU2003	2.843	<0.001
FI2005	> HU2007	3.708	<0.001
FI2005	> HU1994	2.301	0.011
FI2005	> HU2005	2.412	0.034

Notes:

\*Only p-values <0.05 shown

FI = Five Island Lake, FR = Frederick Lake, HU = Hubley Big Lake

Shaded rows indicate 2007 data with  $p < 0.05$



**White Sucker**

The sample sizes and average and maximum muscle PCB concentrations for white sucker in Five Island Lake are shown in Table 6. The average white sucker muscle PCB concentration in Five Island Lake in 2007 exceeded the Ontario guideline of 1.22 mg/kg provided in the *Guide to Eating Ontario Sport Fish, 2007-2008 Edition* (dated 2007), suggesting that these fish should not be consumed by humans.

**TABLE 6 Average and Maximum PCB Muscle Concentrations for White Sucker in Five Island Lake**

Year	n	Muscle	
		Average (mg/kg)	Maximum (mg/kg)
1994	7	23.0	68.0
2001	1	0.17	0.17
2003	2	3.55	3.8
2005	6	1.93	5.6
2007	6	2.34	6.8

Sample size and average and maximum muscle PCB concentrations in white suckers from Hubley Big Lake are shown in Table 7. No data were available on white sucker in Hubley Big Lake from 1994. The white sucker muscle PCB concentrations in Hubley Big Lake in 2007 were below the Ontario consumption guidelines of 0.153 and 1.22 mg/kg.

**TABLE 7 Average and Maximum PCB Muscle Concentrations for White Sucker in Hubley Big Lake**

Year	n	Muscle	
		Average (mg/kg)	Maximum (mg/kg)
1994	0	-	-
2001	1	0.10	0.1
2003	3	0.30	0.49
2005	6	0.051	0.06
2007	5	0.062	0.11

Sample size and average and maximum muscle PCB concentrations in white sucker sampled from Sheldrake Lake are shown in Table 8. Six white suckers were caught in Sheldrake Lake in 2007. No white suckers were caught in 1994 or 2001, respectively. The white sucker muscle PCB concentrations in Sheldrake Lake in 2007 were below the Ontario consumption guidelines of 0.153 and 1.22 mg/kg.

**TABLE 8 Average and Maximum PCB Muscle Concentrations for White Sucker in Sheldrake Lake**

Year	n	Muscle	
		Average (mg/kg)	Maximum (mg/kg)
1994	0	-	-
2001	0	-	-
2003	5	9.0	14.0
2005	6	0.033	0.07
2007	6	0.053	0.07

For white sucker muscle tissue, the ANOVA was performed treating each lake and year of data as an independent set of observations. Lakes where white sucker were collected in sufficient numbers included Five Island (FI), Hubley Big (HU), and Sheldrake (SH). Among these three lakes, white sucker samples were not available from Hubley Big Lake in 1994 or from Sheldrake Lake in 1994 or 2001.

The ANOVA (Table 9) indicated the presence of significant differences ( $p < 0.05$ ), and Tukey's HSD test (Table 10) was used to characterize the differences. In general terms, white suckers from Five Island Lake contained significantly ( $p < 0.05$ ) higher PCB concentrations than white suckers from most other lakes and years. In addition, within Five Island Lake, the white sucker PCB concentrations were highest overall in 1994, declined significantly in 2001 (possibly due to the barrier limiting access to North Bay) and, rose again in 2003, since when they have been relatively stable. In Sheldrake Lake, PCB muscle concentrations were significantly elevated in 2003, but were below detectable levels in 2005 and 2007.

**TABLE 9 ANOVA for Log<sub>10</sub>-transformed PCB Concentration in White Sucker Muscle Tissue**

Source	Sum of Squares	df	Mean Square	F-ratio	Probability
Lake-Year	482.664	11	43.879	24.977	<0.001
Error	137.027	78	1.757	-	-

**TABLE 10 Tukey's HSD test for Log<sub>10</sub>-transformed PCB Concentration in White Sucker Muscle Tissue**

Lake Year	Lake Year Comparison	Difference	p-value*
FI1994	> FI2005	2.668	<0.001
FI1994	> FI2007	4.417	<0.001
FI1994	> HU2001	5.284	<0.001
FI1994	> HU2003	4.922	<0.001
FI1994	> HU2005	5.77	<0.001
FI1994	> HU2007	6.5	<0.001
FI1994	> SH2005	5.314	<0.001
FI1994	> SH2007	6.602	<0.001
FI2003	> HU2005	3.75	<0.001
FI2003	> HU2007	4.481	<0.001
FI2003	> SH2007	4.583	<0.001
FI2005	> HU2005	3.101	<0.001
FI2005	> HU2007	3.832	<0.001

**TABLE 10 Tukey's HSD test for Log<sub>10</sub>-transformed PCB Concentration in White Sucker Muscle Tissue**

Lake Year	Lake Year Comparison		Difference	p-value*
FI2005	>	SH2005	2.646	<0.001
FI2005	>	SH2007	3.934	<0.001
FI2007	<	SH2003	-3.453	<0.001
HU2003	<	SH2003	-3.958	<0.001
HU2005	<	SH2003	-4.806	<0.001
HU2007	<	SH2003	-5.536	<0.001
SH2003	>	SH2005	4.35	<0.001
SH2003	>	SH2007	5.638	<0.001
FI2003	>	SH2005	3.295	0.003
HU2001	<	SH2003	-4.32	0.004
FI1994	>	FI2001	5.434	0.008
FI2005	>	HU2003	2.254	0.046
FI2003	>	HU2003	2.903	0.047

\*Only p-values <0.05 shown

FI = Five Island Lake, SH = Sheldrake Lake, HU = Hubley Big Lake

Shaded rows indicate 2007 data with p<0.05

### Yellow Perch

The sample sizes and average and maximum muscle PCB concentrations for yellow perch in Five Island Lake are shown in Table 11. The average yellow perch muscle PCB concentration in Five Island Lake in 2005 is between the consumption guidelines of 0.153 and 1.22 mg/kg provided in the *Guide to Eating Ontario Sport Fish, 2007-2008 Edition* (dated 2007), indicating that consumers of these fish should exercise caution and limit their consumption.

**TABLE 11 Average and Maximum PCB Muscle Concentrations for Yellow Perch in Five Island Lake**

Year	n	Muscle	
		Average (mg/kg)	Maximum (mg/kg)
1994	8	13.08	62.0
2001	9	1.30	2.8
2003	5	1.71	4.8
2005	6	0.65	1.3
2007	6	0.59	1.6

Sample size and average and maximum muscle PCB concentrations in yellow perch from Hubley Big Lake are shown in Table 12. The yellow perch muscle PCB concentrations in Hubley Big Lake in 2007 were below the Ontario consumption guidelines of 0.153 and 1.22 mg/kg.



**TABLE 12 Average and Maximum PCB Muscle Concentrations for Yellow Perch in Hubley Big Lake**

Year	n	Muscle	
		Average (mg/kg)	Maximum (mg/kg)
1994	30	1.37	12.7
2001	16	0.32	1.6
2003	5	0.19	0.26
2005	6	<0.05	<0.05
2007	5	0.056	0.08

Average and maximum PCB muscle concentrations in yellow perch sampled from Sheldrake Lake are shown in Table 13. The yellow perch muscle PCB concentrations in Sheldrake Lake in 2005 and 2007 were below detection and therefore were also below the Ontario consumption guidelines of 0.153 and 1.22 mg/kg.

**TABLE 13 Average and Maximum PCB Muscle Concentrations for Yellow Perch in Sheldrake Lake**

Year	n	Muscle	
		Average (mg/kg)	Maximum (mg/kg)
1994	5	<0.15	<0.15
2001	10	0.055	0.15
2003	5	0.11	0.31
2005	6	<0.05	<0.05
2007	6	<0.05	<0.05

\*Average without outlier fish

For yellow perch muscle tissues, the ANOVA was performed treating each lake and year of data as an independent set of observations. Lakes where yellow perch were collected in sufficient numbers included Five Island (FI), Hubley Big (HU), and Sheldrake (SH). For these three lakes, trout muscle tissues were collected in each of the years 1994, 2001, 2003, 2005, and 2007.

The ANOVA (Table 14) indicated the presence of significant differences ( $p < 0.05$ ), and Tukey's HSD test (Table 15) was used to characterize the differences. In general terms, yellow perch muscle from Five Island Lake contained significantly ( $p < 0.05$ ) higher PCB concentrations than yellow perch muscle from most other lakes and years, although fewer significant differences were observed in 2001 and 2003 than in 1994, and fewer still were observed in 2005 and 2007. There was a significant decrease in yellow perch muscle PCB concentrations within Five Island Lake between 1994 and 2007, although yellow perch muscle tissue from Five Island Lake remained significantly contaminated with PCBs when compared with the other lakes in 2007.

**TABLE 14 ANOVA for Log<sub>10</sub>-transformed PCB Concentration in Yellow Perch Muscle Tissue**

Source	Sum of Squares	df	Mean Square	F-ratio	Probability
Lake-Year	227.588	14	16.256	5.903	<0.001
Error	451.624	164	2.754	-	-

**TABLE 15 Tukey's HSD test for Log<sub>10</sub>-transformed PCB Concentration in Yellow Perch Muscle Tissue**

Lake Year	Lake Year Comparison	Difference	p-value*
FI1994	> HU2001	2.896	<0.001
FI1994	> HU2005	4.12	<0.001
FI1994	> HU2007	5.098	<0.001
FI1994	> SH2001	3.466	<0.001
FI1994	> SH2005	4.224	<0.001
FI1994	> SH2007	5.192	<0.001
FI1994	> HU1994	2.604	0.001
FI1994	> SH1994	4.093	0.001
FI2003	> SH2007	3.783	0.001
FI1994	> HU2003	3.16	0.002
FI2001	> SH2007	3.296	0.004
FI2003	> HU2007	3.689	0.004
FI1994	> FI2007	3.374	0.007
FI1994	> FI2005	3.26	0.012
FI1994	> SH2003	2.82	0.012
FI2003	> SH2005	2.815	0.013
FI2001	> HU2007	3.202	0.017
FI2003	> HU2005	2.71	0.021
HU1994	> SH2007	2.588	0.034

\*Only p-values <0.05 shown

FI = Five Island Lake, SH = Sheldrake Lake, HU = Hublely Big Lake

Shaded rows indicate 2007 data with p<0.05

### **Banded Killifish**

The sample sizes and average and maximum muscle PCB concentrations for banded killifish in Five Island Lake are shown in Table 16. The composite sample of sixteen banded killifish was found to have a PCB concentration of 2.6 mg/kg. The banded killifish collected in 2007 had a lower average PCB concentration than the banded killifish collected in 2005.

**TABLE 16 PCB Concentrations in Golden Shiner and Banded Killifish from Five Island Lake**

Year	n	Whole Body (mg/kg)	Maximum (mg/kg)
1994 (golden shiner)	15	3.79	10.5
2001 (golden shiner)	10	1.7	2.1
2003 (golden shiner)	1 (composite of ten fish)	0.49	0.49
2005 (banded killifish)	1 (composite of six fish)	8.1	8.1
2007 (banded killifish)	1 (composite of sixteen fish)	2.6	2.6

PCBs were not detected in composite samples of banded killifish from 2005 or 2007 in Sheldrake Lake at a detection limit of 0.05 mg/kg.

## **DISCUSSION**

In Five Island Lake, total PCB residues in edible fish muscle tissue remained elevated in 2007, although concentrations in white sucker and yellow perch have declined significantly since 1994 and concentrations in brook trout are not statistically different than the other lakes in 2007. However, since PCB concentrations in edible fish muscle tissue from Five Island Lake still regularly exceed the Ontario fish consumption guidelines of 0.153 and 1.22 mg/kg, it is recommended that these fish should not be consumed by humans.

Total PCB concentrations in edible fish from Hubley Big Lake generally did not exceed levels of concern in 2007, although concentrations in white sucker and yellow perch in 2003 exceeded the lower Ontario guideline of 0.153 mg/kg. Total PCB concentrations in some brook trout from Sheldrake Lake in 2003 and 2005, and in white sucker and yellow perch from Sheldrake Lake in 2003 exceeded the Ontario consumption guidelines.

## **RECOMMENDATIONS**

Efforts should be taken to confirm whether fish passage between lakes located upstream of Five Island Lake is possible, and if so, consideration should be given to blocking fish passage upstream from Five Island Lake. Such a step would likely require an environmental screening and approval from Fisheries and Oceans Canada. Downstream fish passage (from Five Island Lake to Hubley Big Lake) is more difficult to prevent, and may not be practical to block.

Consideration should be given to constructing engineered barriers to fish passage, particularly between Five Island Lake and Sheldrake Lake, and between Five Island Lake and Hubley Big Lake, as such barriers could enable the removal of consumption advisories in those lakes within a relatively short period of time.

## **LIMITATIONS**

This report has been prepared for Nova Scotia Department of Transportation and Public Works. The report may not be used by any other person or entity without the express written consent of Nova Scotia Department of Transportation and Public Works and Jacques Whitford.

Any uses that a third party makes of this report, or any reliance on decisions made based on it, are the responsibility of such third parties. Jacques Whitford accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made, or actions taken, based on this report.

Mr. Chris Moir  
Page 11  
January 28, 2008

The information and conclusions contained in this report are based upon work undertaken by trained professional and technical staff in accordance with generally accepted engineering and scientific practices current at the time the work was performed. Conclusions and recommendations presented in this report should not be construed as legal advice.

The conclusions presented in this report represent the best technical judgment of Jacques Whitford based on the data obtained from the work. The conclusions are based on the site conditions observed by Jacques Whitford at the time the work was performed at the specific testing and/or sampling locations, and can only be extrapolated to an undefined limited area around these locations. Due to the nature of the investigation and the limited data available, Jacques Whitford cannot warrant against undiscovered environmental liabilities.

If any conditions become apparent that differ significantly from our understanding of conditions as presented in this report, we request that we be notified immediately to reassess the conclusions provided herein.

This report was prepared by Nicolette Stanley, M.Sc., MIT and reviewed by Malcolm Stephenson, Ph.D.

Yours truly,

**JACQUES WHITFORD LIMITED**

**ORIGINAL SIGNED**

Malcolm Stephenson, Ph.D.  
Senior Reviewer

NS/MS/cb

Attachments

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## **ATTACHMENT 1**

Fish Measurement Data, 1994 to 2007

**TABLE 1 FISH MEASUREMENT DATA**  
**Nova Scotia Department of Transportation and Public Works**  
**Five Island Lake Watershed**  
**Jacques Whitford Project No. NSD09299-6-1**

Location	Subsample Location	Year	Species	ID	Weight (g)	Total Length (cm)	Fork Length (cm)	Muscle Weight (g)	Liver/Organ Weight (g)
Five Island Lake	mid Lake	1-Oct-94	Brook Trout	BT1-N2	154.7	23.0			
Five Island Lake	mid Lake	1-Oct-94	Brook Trout	BT2-N2	141.3	26.2			
Five Island Lake	north end	1-Oct-94	Golden Shiner	GF10-N1	15.4	11.0			
Five Island Lake	north end	1-Oct-94	Golden Shiner	GF11-N1	10.8	9.4			
Five Island Lake	north end	1-Oct-94	Golden Shiner	GF12-N1	12.5	9.5			
Five Island Lake	north end	1-Oct-94	Golden Shiner	GF13-N1	17.7	10.5			
Five Island Lake	north end	1-Oct-94	Golden Shiner	GF14-N1	8.0	8.5			
Five Island Lake	north end	1-Oct-94	Golden Shiner	GF15-N1	12.1	9.8			
Five Island Lake	north end	1-Oct-94	Golden Shiner	GF16-N1	12.3	9.6			
Five Island Lake	north end	1-Oct-94	Golden Shiner	GF17-N1	10.5	9.1			
Five Island Lake	north end	1-Oct-94	Golden Shiner	GF18-N1	12.9	10.0			
Five Island Lake	north end	1-Oct-94	Golden Shiner	GF19-N1	8.2	8.7			
Five Island Lake	north end	1-Oct-94	Golden Shiner	GF1-N1	17.6	10.6			
Five Island Lake	north end	1-Oct-94	Golden Shiner	GF20-N1	11.1	9.2			
Five Island Lake	north end	1-Oct-94	Golden Shiner	GF21-N1	10.4	10.1			
Five Island Lake	north end	1-Oct-94	Golden Shiner	GF22-N1	16.2	10.1			
Five Island Lake	north end	1-Oct-94	Golden Shiner	GF23-N1	13.0	10.5			
Five Island Lake	north end	1-Oct-94	Golden Shiner	GF24-N1	13.3	9.9			
Five Island Lake	north end	1-Oct-94	Golden Shiner	GF25-N1	15.9	10.7			
Five Island Lake	north end	1-Oct-94	Golden Shiner	GF26-N1	11.4	9.4			
Five Island Lake	north end	1-Oct-94	Golden Shiner	GF27-N1	6.1	7.0			
Five Island Lake	north end	1-Oct-94	Golden Shiner	GF2-N1	10.7	9.4			
Five Island Lake	north end	1-Oct-94	Golden Shiner	GF3-N1	20.7	11.1			
Five Island Lake	north end	1-Oct-94	Golden Shiner	GF4-N1	10.3	8.8			
Five Island Lake	north end	1-Oct-94	Golden Shiner	GF5-N1	11.7	9.5			
Five Island Lake	north end	1-Oct-94	Golden Shiner	GF6-N1	15.7	10.5			
Five Island Lake	north end	1-Oct-94	Golden Shiner	GF7-N1	13.1	9.3			
Five Island Lake	north end	1-Oct-94	Golden Shiner	GF8-N1	16.3	10.0			
Five Island Lake	north end	1-Oct-94	Golden Shiner	GF9-N1	40.2	13.2			
Five Island Lake	north end	1-Oct-94	White Sucker	WS1-N1	70.9	17.2			
Five Island Lake	south end	1-Oct-94	White Sucker	WS1-N3	671.9	37.5			
Five Island Lake	north end	1-Oct-94	White Sucker	WS2-N1	81.0	18.7			
Five Island Lake	south end	1-Oct-94	White Sucker	WS2-N3	774.6	41.0			
Five Island Lake	south end	1-Oct-94	White Sucker	WS3-N3	789.9	39.0			
Five Island Lake	south end	1-Oct-94	White Sucker	WS4-N3	906.7	43.0			
Five Island Lake	south end	1-Oct-94	White Sucker	WS4-N3 (r)	906.7	43.0			
Five Island Lake	south end	1-Oct-94	White Sucker	WS5-N3	946.7	43.0			
Five Island Lake	south end	1-Oct-94	White Sucker	WS5-N3 (r)	946.7	43.0			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP10-N1	10.7	9.6			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP11-N1	67.0	16.8			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP12-N1	110.7	20.8			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP13-N1	12.5	9.9			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP14-N1	14.6	10.1			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP15-N1	11.4	9.5			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP16-N1	94.9	19.4			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP17-N1	82.6	19.0			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP18-N1	31.2	13.3			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP19-N1	14.5	10.7			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP1-N1	299.2	26.6			
Five Island Lake	mid Lake	1-Oct-94	Yellow Perch	YP1-N2	265.4	26.0			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP20-N1	36.4	13.1			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP21-N1	17.2	11.0			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP22-N1	13.7	9.9			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP23-N1	13.8	10.2			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP24-N1	11.0	9.6			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP25-N1	35.5	13.5			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP26-N1	11.5	9.4			



**TABLE 1 FISH MEASUREMENT DATA**  
**Nova Scotia Department of Transportation and Public Works**  
**Five Island Lake Watershed**  
**Jacques Whitford Project No. NSD09299-6-1**

Location	Subsample Location	Year	Species	ID	Weight (g)	Total Length (cm)	Fork Length (cm)	Muscle Weight (g)	Liver/Organ Weight (g)
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP27-N1	13.7	9.9			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP28-N1	10.5	8.9			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP29-N1	16.8	10.4			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP2-N1	283.2	25.5			
Five Island Lake	mid Lake	1-Oct-94	Yellow Perch	YP2-N2	176.3	fd			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP30-N1	12.4	10.2			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP31-N1	10.6	9.2			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP32-N1	26.7	12.5			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP33-N1	15.3	10.5			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP34-N1	71.7	17.7			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP35-N1	37.1	14.2			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP36-N1	14.4	9.8			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP37-N1	14.8	10.5			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP38-N1	18.8	11.5			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP39-N1	11.5	9.5			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP3-N1	207.5	25.4			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP40-N1	14.1	10.4			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP41-N1	14.5	10.5			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP42-N1	13.2	9.6			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP43-N1	11.3	9.3			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP44-N1	15.8	10.6			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP45-N1a	17.8	10.8			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP45-N1b	13.5	9.7			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP46-N1	15.2	10.4			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP47-N1	13.1	9.2			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP48-N1	14.0	9.8			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP49-N1	13.6	10.0			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP4-N1	71.8	17.3			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP50-N1	15.1	10.2			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP51-N1	15.5	10.3			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP52-N1	40.1	14.2			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP53-N1	17.6	10.9			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP54-N1	12.7	9.8			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP55-N1	15.8	10.4			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP56-N1	11.0	9.1			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP57-N1	32.7	13.7			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP58-N1	13.1	10.0			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP59-N1	12.0	9.4			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP5-N1	13.4	10.2			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP60-N1	12.6	10.2			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP61-N1	12.8	10.2			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP62-N1	10.8	9.4			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP63-N1	12.1	9.5			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP64-N1	12.9	9.7			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP65-N1	14.8	10.3			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP66-N1	18.4	11.3			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP67-N1	13.6	10.1			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP68-N1	10.9	9.0			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP69-N1	12.9	9.3			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP6-N1	35.3	14.4			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP70-N1	11.2	8.9			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP71-N1	17.9	10.8			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP72-N1	10.1	8.6			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP73-N1	14.0	10.2			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP74-N1	13.6	10.3			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP75-N1	11.9	9.6			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP76-N1	10.9	8.9			

**TABLE 1 FISH MEASUREMENT DATA**  
**Nova Scotia Department of Transportation and Public Works**  
**Five Island Lake Watershed**  
**Jacques Whitford Project No. NSD09299-6-1**

Location	Subsample Location	Year	Species	ID	Weight (g)	Total Length (cm)	Fork Length (cm)	Muscle Weight (g)	Liver/Organ Weight (g)
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP77-N1	14.4	10.2			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP78-N1	19.5	11.5			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP79-N1	19.0	11.5			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP7-N1	19.6	11.1			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP80-N1	19.8	11.5			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP81-N1	13.1	9.9			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP82-N1	12.7	9.2			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP83-N1	19.3	11.2			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP84-N1	11.1	9.1			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP85-N1	13.0	9.5			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP86-N1	10.5	8.8			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP87-N1	14.8	10.1			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP88-N1	16.3	10.6			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP8-N1	16.6	10.8			
Five Island Lake	north end	1-Oct-94	Yellow Perch	YP9-N1	13.9	10.1			
Five Island Lake		1-Jul-01	Brook Trout	FI11	117.4	20.6	19.7		
Five Island Lake		1-Jul-01	Brook Trout	FI13	76.7	not measured	17.5		
Five Island Lake		1-Jul-01	Brook Trout	FI14	173.5	not measured	22.5		
Five Island Lake		1-Jul-01	White Sucker	FI12	130.7	23.1	22.2		
Five Island Lake		1-Jul-01	Yellow Perch	FI1	258.0	27.5	26.1		
Five Island Lake		1-Jul-01	Yellow Perch	FI10	35.1	15.1	14.5		
Five Island Lake		1-Jul-01	Yellow Perch	FI2	130.5	22.1	21.4		
Five Island Lake		1-Jul-01	Yellow Perch	FI3	46.8	16.5	15.7		
Five Island Lake		1-Jul-01	Yellow Perch	FI4	102.7	19.4	18.6		
Five Island Lake		1-Jul-01	Yellow Perch	FI5	39.8	15.1	14.4		
Five Island Lake		1-Jul-01	Yellow Perch	FI6	47.5	16.4	15.6		
Five Island Lake		1-Jul-01	Yellow Perch	FI7	32.7	15.1	14.5		
Five Island Lake		1-Jul-01	Yellow Perch	FI9	43.7	16.7	15.9		
Five Island Lake		1-May-03	Brook Trout	Trout 1	676.0	38.0	37.0		
Five Island Lake		1-May-03	Brook Trout	Trout 2	596.0	36.9	36.0		
Five Island Lake		1-May-03	Brook Trout	Trout 3	424.0	32.0	31.4		
Five Island Lake		1-May-03	Brook Trout	Trout 4	314.0	30.4	29.6		
Five Island Lake		1-May-03	Brook Trout	Trout 5	276.0	28.9	28.0		
Five Island Lake		1-May-03	White Sucker	Sucker 1	652.0	34.6	33.0		
Five Island Lake		1-May-03	White Sucker	Sucker 2	767.0	38.8	37.0		
Five Island Lake		1-May-03	Yellow Perch	Perch 1	84.0	18.2	17.6		
Five Island Lake		1-May-03	Yellow Perch	Perch 2	64.0	18.2	17.4		
Five Island Lake		1-May-03	Yellow Perch	Perch 3	64.0	16.6	15.8		
Five Island Lake		1-May-03	Yellow Perch	Perch 4	62.0	16.5	15.9		
Five Island Lake		1-May-03	Yellow Perch	Perch 5	34.0	13.8	13.1		
Five Island Lake		1-Jul-05	Banded Killifish	FIL-KFCOMP	7.72 (n=6)	na	na	na	na
Five Island Lake		1-Jul-05	Brook Trout	FIL MB2 BT1	642.9	35.5	35.0	118.0	9.9
Five Island Lake		1-Jul-05	Brook Trout	FIL MB5 BT1	468.8	37.0	36.0	54.2	5.4
Five Island Lake		1-Jul-05	Brook Trout	FIL MB7 BT1	635.9	36.5	35.0	64.7	8.3
Five Island Lake		1-Jul-05	Brook Trout	FIL MB7 BT2	702.6	39.5	39.0	55.8	11.4
Five Island Lake		1-Jul-05	Brook Trout	FIL MB8 BT1	219.5	26.7	25.3	56.3	2.6
Five Island Lake		1-Jul-05	Brook Trout	FIL NB BT1	137.2	24.2	23.2	44.4	2.4
Five Island Lake		1-Jul-05	White Sucker	FIL NB3 WS1	570.4	36.5	34.0	51.9	4.7
Five Island Lake		1-Jul-05	White Sucker	FIL NB3 WS3	704.6	39.0	37.5	60.5	47.5
Five Island Lake		1-Jul-05	White Sucker	FIL MB5 WS1	927.3	42.0	40.0	3.5	48.0
Five Island Lake		1-Jul-05	White Sucker	FIL MB5 WS2	436.5	34.5	32.0	50.2	21.5
Five Island Lake		1-Jul-05	White Sucker	FIL MB7 WS1	853.7	41.5	38.0	na	46.3
Five Island Lake		1-Jul-05	Yellow Perch	FIL MB8 YP2	30.6	13.5	14.5	9.2	na
Five Island Lake		1-Jul-05	Yellow Perch	FIL MB8-YP1	38.1	15.2	14.5	9.2	na
Five Island Lake		1-Jul-05	Yellow Perch	FIL NB1 YP1	25.9	13.5	12.6	5.0	na
Five Island Lake		1-Jul-05	Yellow Perch	FIL NB1 YP2	56.4	16.4	15.0	14.4	0.8
Five Island Lake		1-Jul-05	Yellow Perch	FIL NB2 YP1	46.3	16.2	15.5	11.1	na

**TABLE 1 FISH MEASUREMENT DATA**  
**Nova Scotia Department of Transportation and Public Works**  
**Five Island Lake Watershed**  
**Jacques Whitford Project No. NSD09299-6-1**

Location	Subsample Location	Year	Species	ID	Weight (g)	Total Length (cm)	Fork Length (cm)	Muscle Weight (g)	Liver/Organ Weight (g)
Five Island Lake		1-Jul-05	Yellow Perch	FIL NB2 YP3	30.5	14.2	13.5	9.3	na
Frederick Lake		1-Jul-01	Brook Trout	FR16	373.4	30.0	29.4		
Frederick Lake		1-Jul-01	Brook Trout	FR17	296.2	28.1	27.4		
Frederick Lake		1-Jul-01	Brook Trout	FR18	53.1	16.2	15.6		
Frederick Lake		1-Jul-01	Yellow Perch	FR12	53.4	17.7	17.0		
Frederick Lake		1-Jul-01	Yellow Perch	FR1	38.3	16.4	15.5		
Frederick Lake		1-Jul-01	Yellow Perch	FR10	57.0	16.4	15.7		
Frederick Lake		1-Jul-01	Yellow Perch	FR11	48.2	15.5	14.8		
Frederick Lake		1-Jul-01	Yellow Perch	FR13	57.4	17.2	16.5		
Frederick Lake		1-Jul-01	Yellow Perch	FR14	53.6	17.1	16.5		
Frederick Lake		1-Jul-01	Yellow Perch	FR15	76.2	19.0	18.5		
Frederick Lake		1-Jul-01	Yellow Perch	FR2	47.8	17.3	16.5		
Frederick Lake		1-Jul-01	Yellow Perch	FR3	66.5	17.6	17.0		
Frederick Lake		1-Jul-01	Yellow Perch	FR4	53.9	16.9	16.2		
Frederick Lake		1-Jul-01	Yellow Perch	FR5	54.4	16.9	16.0		
Frederick Lake		1-Jul-01	Yellow Perch	FR6	59.4	17.3	16.6		
Frederick Lake		1-Jul-01	Yellow Perch	FR7	50.2	16.7	16.1		
Frederick Lake		1-Jul-01	Yellow Perch	FR8	121.9	20.2	19.6		
Frederick Lake		1-Jul-01	Yellow Perch	FR9	73.8	17.6	17.0		
Frederick Lake		1-May-03	Yellow Perch	Perch 1	40.0	15.1	14.6		
Frederick Lake		1-May-03	Yellow Perch	Perch 2	38.0	14.4	13.9		
Frederick Lake		1-May-03	Yellow Perch	Perch 3	52.0	16.2	15.8		
Frederick Lake		1-May-03	Yellow Perch	Perch 4	50.0	17.2	16.6		
Frederick Lake		1-May-03	Yellow Perch	Perch 5	30.0	13.6	13.4		
Frederick Lake		1-Jul-05	Banded Killifish	FL-KFCOMP	36.5 (n=10)	na	na		
Frederick Lake		1-Jul-05	Brook Trout	FL-1-BT1	73.1	19.1	18.1	22.4	1.0
Frederick Lake		1-Jul-05	Brook Trout	FL-1-BT2	76.4	19.8	18.9	22.2	1.2
Frederick Lake		1-Jul-05	Brook Trout	FL-2-BT1	195.6	30.8	29.6	33.5	1.7
Frederick Lake		1-Jul-05	Brook Trout	FL-3-BT1	253.3	26.2	25.0	36.4	2.4
Frederick Lake		1-Jul-05	Brook Trout	FL-4-BT1	439.1	32.3	31.2	46.5	6.3
Frederick Lake		1-Jul-05	Brook Trout	FL-5-BT1	458.5	34.2	33.4	35.0	4.6
Frederick Lake		1-Jul-05	Yellow Perch	FL YPCOMPL1	36.8	14.7	14.0		
Frederick Lake		1-Jul-05	Yellow Perch	FL YPCOMPL2	33.9	12.5	14.0		
Frederick Lake		1-Jul-05	Yellow Perch	FL-3-YP2	37.0	14.9	14.3	9.5	0.5
Frederick Lake		1-Jul-05	Yellow Perch	FL-3-YP3	35.5	14.5	13.9	8.8	0.4
Frederick Lake		1-Jul-05	Yellow Perch	FL-3-YP4	36.6	14.7	14.1	8.1	0.3
Frederick Lake		1-Jul-05	Yellow Perch	FL-4-YP1	43.6	15.2	14.7	8.1	0.4
Frederick Lake		1-Jul-05	Yellow Perch	FL-4-YP2	44.0	15.1	14.3	9.1	0.5
Frederick Lake		1-Jul-05	Yellow Perch	FL-4-YP3	33.9	14.2	13.9	8.3	0.3
Hubley Big Lake		1-Jul-05	Brook Trout	HL-12-BT1	80.9	19.0	18.0	27.9	0.7
Hubley Big Lake		1-Jul-05	Brook Trout	HL-3-BT1	495.0	34.0	32.5	58.6	6.7
Hubley Big Lake		1-Jul-05	Golden Shiner	HL GS1	36.6	15.5	14.0	-	-
Hubley Big Lake	3 Brooks Bay	1-Oct-94	American Eel	HBL-AE	387.0	57.0			
Hubley Big Lake	3 Brooks Bay	1-Oct-94	American Eel	HBL-AE (r)	387.0	57.0			
Hubley Big Lake	3 Brooks Bay	1-Oct-94	Brook Trout	HBL-BT	106.0	21.0			
Hubley Big Lake	3 Brooks Bay	1-Oct-94	Yellow Perch	HBL-YP	9.5	9.0			
Hubley Big Lake	3 Brooks Bay	1-Oct-94	Yellow Perch	HBL-YP	38.9	14.0			
Hubley Big Lake	3 Brooks Bay	1-Oct-94	Yellow Perch	HBL-YP	9.3	9.0			
Hubley Big Lake	3 Brooks Bay	1-Oct-94	Yellow Perch	HBL-YP1	81.0	18.0			
Hubley Big Lake	3 Brooks Bay	1-Oct-94	Yellow Perch	HBL-YP1 (r)	81.0	18.0			
Hubley Big Lake	3 Brooks Bay	1-Oct-94	Yellow Perch	HBL-YP10	40.4	15.0			
Hubley Big Lake	3 Brooks Bay	1-Oct-94	Yellow Perch	HBL-YP11	37.2	14.0			
Hubley Big Lake	3 Brooks Bay	1-Oct-94	Yellow Perch	HBL-YP12	41.9	14.5			
Hubley Big Lake	3 Brooks Bay	1-Oct-94	Yellow Perch	HBL-YP13	38.3	14.0			
Hubley Big Lake	3 Brooks Bay	1-Oct-94	Yellow Perch	HBL-YP14	31.8	13.5			
Hubley Big Lake	3 Brooks Bay	1-Oct-94	Yellow Perch	HBL-YP15	35.1	14.0			
Hubley Big Lake	3 Brooks Bay	1-Oct-94	Yellow Perch	HBL-YP16	41.9	15.0			

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**Nova Scotia Department of Transportation and Public Works**  
**Five Island Lake Watershed**  
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Location	Subsample Location	Year	Species	ID	Weight (g)	Total Length (cm)	Fork Length (cm)	Muscle Weight (g)	Liver/Organ Weight (g)
Hubley Big Lake	3 Brooks Bay	1-Oct-94	Yellow Perch	HBL-YP17	39.3	14.5			
Hubley Big Lake	3 Brooks Bay	1-Oct-94	Yellow Perch	HBL-YP18	47.8	16.0			
Hubley Big Lake	3 Brooks Bay	1-Oct-94	Yellow Perch	HBL-YP19	37.1	14.0			
Hubley Big Lake	3 Brooks Bay	1-Oct-94	Yellow Perch	HBL-YP2	169.5	24.5			
Hubley Big Lake	3 Brooks Bay	1-Oct-94	Yellow Perch	HBL-YP20	41.1	15.0			
Hubley Big Lake	3 Brooks Bay	1-Oct-94	Yellow Perch	HBL-YP21	34.4	14.0			
Hubley Big Lake	3 Brooks Bay	1-Oct-94	Yellow Perch	HBL-YP22	39.4	16.0			
Hubley Big Lake	3 Brooks Bay	1-Oct-94	Yellow Perch	HBL-YP23	42.4	16.0			
Hubley Big Lake	3 Brooks Bay	1-Oct-94	Yellow Perch	HBL-YP24	32.4	fd			
Hubley Big Lake	3 Brooks Bay	1-Oct-94	Yellow Perch	HBL-YP25	17.3	12.5			
Hubley Big Lake	3 Brooks Bay	1-Oct-94	Yellow Perch	HBL-YP26	11.1	10.0			
Hubley Big Lake	3 Brooks Bay	1-Oct-94	Yellow Perch	HBL-YP27	10.5	9.5			
Hubley Big Lake	3 Brooks Bay	1-Oct-94	Yellow Perch	HBL-YP28	10.9	9.5			
Hubley Big Lake	3 Brooks Bay	1-Oct-94	Yellow Perch	HBL-YP29	12.1	9.5			
Hubley Big Lake	3 Brooks Bay	1-Oct-94	Yellow Perch	HBL-YP3	93.6	19.5			
Hubley Big Lake	3 Brooks Bay	1-Oct-94	Yellow Perch	HBL-YP30	14.2	10.0			
Hubley Big Lake	3 Brooks Bay	1-Oct-94	Yellow Perch	HBL-YP31	10.4	9.5			
Hubley Big Lake	3 Brooks Bay	1-Oct-94	Yellow Perch	HBL-YP32	10.9	9.5			
Hubley Big Lake	3 Brooks Bay	1-Oct-94	Yellow Perch	HBL-YP4	47.1	16.5			
Hubley Big Lake	3 Brooks Bay	1-Oct-94	Yellow Perch	HBL-YP5	40.3	15.5			
Hubley Big Lake	3 Brooks Bay	1-Oct-94	Yellow Perch	HBL-YP6	51.2	15.0			
Hubley Big Lake	3 Brooks Bay	1-Oct-94	Yellow Perch	HBL-YP7	54.8	16.0			
Hubley Big Lake	3 Brooks Bay	1-Oct-94	Yellow Perch	HBL-YP8	44.3	16.0			
Hubley Big Lake	3 Brooks Bay	1-Oct-94	Yellow Perch	HBL-YP9	46.1	16.5			
Hubley Big Lake		1-Jul-01	Brook Trout	HB17	531.4	38.0	37.1		
Hubley Big Lake		1-Jul-01	White Sucker	HB16	101.6	20.6	19.2		
Hubley Big Lake		1-Jul-01	Yellow Perch	HB1	56.7	18.0	17.3		
Hubley Big Lake		1-Jul-01	Yellow Perch	HB10	26.1	14.0	13.4		
Hubley Big Lake		1-Jul-01	Yellow Perch	HB11	35.6	15.5	14.8		
Hubley Big Lake		1-Jul-01	Yellow Perch	HB12	36.6	16.0	15.2		
Hubley Big Lake		1-Jul-01	Yellow Perch	HB13	27.7	13.7	13.2		
Hubley Big Lake		1-Jul-01	Yellow Perch	HB14	24.4	13.4	12.6		
Hubley Big Lake		1-Jul-01	Yellow Perch	HB15	21.4	12.8	12.2		
Hubley Big Lake		1-Jul-01	Yellow Perch	HB2	75.3	19.2	18.4		
Hubley Big Lake		1-Jul-01	Yellow Perch	HB3	86.5	19.1	18.5		
Hubley Big Lake		1-Jul-01	Yellow Perch	HB4	58.5	17.9	17.0		
Hubley Big Lake		1-Jul-01	Yellow Perch	HB5	49.3	16.2	15.6		
Hubley Big Lake		1-Jul-01	Yellow Perch	HB6	39.3	15.9	15.4		
Hubley Big Lake		1-Jul-01	Yellow Perch	HB7	37.5	16.2	15.5		
Hubley Big Lake		1-Jul-01	Yellow Perch	HB8	56.4	17.5	16.9		
Hubley Big Lake		1-Jul-01	Yellow Perch	HB9	45.6	16.5	15.7		
Hubley Big Lake		1-May-03	Brook Trout	Trout	513.0	13.0	12.0		
Hubley Big Lake		1-May-03	Brook Trout	Trout 1	200.0	26.2	25.4		
Hubley Big Lake		1-May-03	Brook Trout	Trout 2	146.0	24.1	23.1		
Hubley Big Lake		1-May-03	Brook Trout	Trout 3	108.0	22.9	21.9		
Hubley Big Lake		1-May-03	Brook Trout	Trout 4	164.0	25.2	24.0		
Hubley Big Lake		1-May-03	Brook Trout	Trout 5	216.0	26.9	25.7		
Hubley Big Lake		1-May-03	White Sucker	Sucker 1	636.0	14.0	13.0		
Hubley Big Lake		1-May-03	White Sucker	Sucker 2	524.0	12.0	11.0		
Hubley Big Lake		1-May-03	White Sucker	Sucker 3	811.0	17.0	16.0		
Hubley Big Lake		1-May-03	Yellow Perch	Perch 1	56.0	18.2	17.7		
Hubley Big Lake		1-May-03	Yellow Perch	Perch 2	68.0	18.2	17.6		
Hubley Big Lake		1-May-03	Yellow Perch	Perch 3	42.0	16.1	15.4		
Hubley Big Lake		1-May-03	Yellow Perch	Perch 4	62.0	19.5	18.8		
Hubley Big Lake		1-May-03	Yellow Perch	Perch 5	48.0	16.2	15.5		
Hubley Big Lake		1-Jul-05	White Sucker	HL-1-WS2	621.2	38.5	35.5	61.1	9.2
Hubley Big Lake		1-Jul-05	White Sucker	HL-1-WS3	569.5	37.5	34.7	72.1	5.3

**TABLE 1 FISH MEASUREMENT DATA**  
**Nova Scotia Department of Transportation and Public Works**  
**Five Island Lake Watershed**  
**Jacques Whitford Project No. NSD09299-6-1**

Location	Subsample Location	Year	Species	ID	Weight (g)	Total Length (cm)	Fork Length (cm)	Muscle Weight (g)	Liver/Organ Weight (g)
Hubley Big Lake		1-Jul-05	White Sucker	HL-8-WS1	507.2	35.5	33.5	49.9	2.6
Hubley Big Lake		1-Jul-05	White Sucker	HL-8-WS2	599.3	38.0	36.0	66.0	3.5
Hubley Big Lake		1-Jul-05	White Sucker	HL-8-WS3	470.7	36.0	34.0	45.3	1.6
Hubley Big Lake		1-Jul-05	White Sucker	HL-8-WS4	428.6	35.0	32.5	52.2	3.0
Hubley Big Lake		1-Jul-05	Yellow Perch	HL YPCOMPL	34.3	15.0	14.1		
Hubley Big Lake		1-Jul-05	Yellow Perch	HL YPCOMP	34.3	15.0	14.1		
Hubley Big Lake		1-Jul-05	Yellow Perch	HL-1-YP1	116.5	20.0	19.4	20.3	0.9
Hubley Big Lake		1-Jul-05	Yellow Perch	HL-1-YP3	41.7	16.0	14.9	12.2	na
Hubley Big Lake		1-Jul-05	Yellow Perch	HL-1-YP4	27.6	13.9	13.1	7.9	na
Hubley Big Lake		1-Jul-05	Yellow Perch	HL-7-YP1	97.8	19.3	18.5	23.2	-
Hubley Big Lake		1-Jul-05	Yellow Perch	HL-8-YP1	134.9	23.6	22.6	31.3	1.4
Round Lake		1-Oct-94	Brook Trout	BT1 LL					
Round Lake		1-Oct-94	Brook Trout	BT2 LL					
Round Lake		1-Oct-94	Brook Trout	BT3 LL					
Round Lake		1-Oct-94	Rainbow Trout	RT1 LL					
Round Lake		1-Oct-94	Rainbow Trout	RT2 LL					
Round Lake		1-Oct-94	Rainbow Trout	RT3 LL					
Round Lake		1-Oct-94	Rainbow Trout	RT4 LL					
Round Lake		1-Oct-94	White Perch	WP1 LL					
Round Lake		1-Oct-94	White Perch	WP1 LL					
Round Lake		1-Oct-94	White Perch	WP2 LL					
Round Lake		1-Oct-94	White Perch	WP3 LL					
Round Lake		1-Oct-94	White Perch	WP4 LL					
Round Lake		1-Oct-94	White Perch	WP5 LL					
Round Lake		1-Oct-94	White Perch	WP6 LL					
Round Lake		1-Oct-94	White Perch	WP7 LL					
Round Lake		1-Oct-94	White Perch	WP8 LL					
Round Lake		1-Oct-94	White Perch	WP9 LL					
Round Lake		1-Oct-94	White Sucker	WS1 LL					
Round Lake		1-Oct-94	White Sucker	WS10 LL					
Round Lake		1-Oct-94	White Sucker	WS2 LL					
Round Lake		1-Oct-94	White Sucker	WS3 LL					
Round Lake		1-Oct-94	White Sucker	WS4 LL					
Round Lake		1-Oct-94	White Sucker	WS5 LL					
Round Lake		1-Oct-94	White Sucker	WS6 LL					
Round Lake		1-Oct-94	White Sucker	WS7 LL					
Round Lake		1-Oct-94	White Sucker	WS8 LL					
Round Lake		1-Oct-94	White Sucker	WS9 LL					
Round Lake		1-Jul-01	Brook Trout	RL2	185.2	24.5	23.6		
Round Lake		1-Jul-01	Brook Trout	RL3	56.1	17.0	16.4		
Round Lake		1-Jul-01	Brook Trout	RL4	52.0	17.0	16.3		
Round Lake		1-Jul-01	Brook Trout	RL5	33.5	14.5	13.8		
Round Lake		1-Jul-01	Rainbow Trout	RL10	191.4	26.4	25.4		
Round Lake		1-Jul-01	Rainbow Trout	RL11	201.4	27.3	26.7		
Round Lake		1-Jul-01	Rainbow Trout	RL12	165.6	24.7	24.0		
Round Lake		1-Jul-01	Rainbow Trout	RL13	213.8	28.4	28.0		
Round Lake		1-Jul-01	Rainbow Trout	RL6	354.8	32.1	31.4		
Round Lake		1-Jul-01	Rainbow Trout	RL7	367.1	33.9	32.8		
Round Lake		1-Jul-01	Rainbow Trout	RL8	303.6	31.2	30.4		
Round Lake		1-Jul-01	Rainbow Trout	RL9	291.4	30.1	29.7		
Round Lake		1-Jul-01	White Perch	RL1	24.5	12.9	12.1		
Round Lake		1-Jul-01	White Sucker	RL14	15.6	11.3	10.6		
Round Lake		1-Jul-01	White Sucker	RL15	266.8	28.5	27.6		
Round Lake		1-Jul-01	White Sucker	RL16	102.3	21.2	20.6		
Round Lake		1-Jul-01	White Sucker	RL17	136.2	23.5	22.6		
Round Lake		1-Jul-01	White Sucker	RL18	122.5	22.4	21.2		
Round Lake		1-Jul-01	White Sucker	RL19	171.5	24.6	24.0		

**TABLE 1 FISH MEASUREMENT DATA**  
**Nova Scotia Department of Transportation and Public Works**  
**Five Island Lake Watershed**  
**Jacques Whitford Project No. NSD09299-6-1**

Location	Subsample Location	Year	Species	ID	Weight (g)	Total Length (cm)	Fork Length (cm)	Muscle Weight (g)	Liver/Organ Weight (g)
Round Lake		1-Jul-01	White Sucker	RL20	52.1	17.0	16.4		
Round Lake		1-Jul-01	White Sucker	RL21	no measurements (partial fish)				
Round Lake		1-Jul-01	White Sucker	RL22	no measurements (partial fish)				
Round Lake		1-May-03	Brook Trout	Trout 1	156.0	24.7	23.8		
Round Lake		1-May-03	Brook Trout	Trout 2	128.0	23.1	22.4		
Round Lake		1-May-03	Brook Trout	Trout 3	92.0	20.0	19.4		
Round Lake		1-May-03	Brook Trout	Trout 4	82.0	20.0	19.4		
Round Lake		1-May-03	Brook Trout	Trout 5	80.0	19.8	19.4		
Round Lake		1-May-03	White Sucker	Sucker 1	410.0	33.4	31.0		
Round Lake		1-May-03	White Sucker	Sucker 2	216.0	27.1	25.5		
Round Lake		1-May-03	White Sucker	Sucker 3	280.0	29.1	27.1		
Round Lake		1-May-03	White Sucker	Sucker 4	272.0	30.3	28.0		
Round Lake		1-May-03	White Sucker	Sucker 5	188.0	26.3	25.4		
Round Lake		1-Jul-05	Brook Trout	RL-15-BT1	52.1	16.2	15.0		
Round Lake		1-Jul-05	Brook Trout	RL-17-BT1	152.0	15.3	14.5		
Round Lake		1-Jul-05	Brook Trout	RL-6-BT1	108.8	21.6	20.8	21.5	1.0
Round Lake		1-Jul-05	Golden Shiner	RL-GS-COMP	34.8 (n=10)	na	na		
Round Lake		1-Jul-05	Rainbow Trout	RL-14-RT1	176.5	27.0	26.5	20.5	1.4
Round Lake		1-Jul-05	Rainbow Trout	RL-14-RT2	203.8	21.1	20.5	40.3	2.0
Round Lake		1-Jul-05	Rainbow Trout	RL-18-RT1	300.2	30.4	29.1	48.6	2.5
Round Lake		1-Jul-05	White Perch	RL-13-WP1	274.7	26.7	25.0	47.2	2.5
Round Lake		1-Jul-05	White Perch	RL-14-WP1	66.5	19.3	18.6	18.8	0.8
Round Lake		1-Jul-05	White Perch	RL-17-WP1	18.7	11.6	10.9		
Round Lake		1-Jul-05	White Sucker	RL-12-WS1	712.0	45.0	43.2	30.3	11.5
Round Lake		1-Jul-05	White Sucker	RL-1-WS1	125.3	23.9	22.0	27.3	5.5
Round Lake		1-Jul-05	White Sucker	RL-4-WS1	497.5	42.1	40.8	45.1	7.9
Round Lake		1-Jul-05	White Sucker	RL-4-WS3	322.2	31.0	29.0	48.1	17.4
Round Lake		1-Jul-05	White Sucker	RL-4-WS4	105.5	22.5	21.2	20.2	7.5
Round Lake		1-Jul-05	White Sucker	RL-5-WS1	105.6	21.6	20.0	31.5	5.4
Sheldrake Lake		1-Oct-94	Yellow Perch	YP1 SL					
Sheldrake Lake		1-Oct-94	Yellow Perch	YP2 SL					
Sheldrake Lake		1-Oct-94	Yellow Perch	YP3 SL					
Sheldrake Lake		1-Oct-94	Yellow Perch	YP4 SL					
Sheldrake Lake		1-Oct-94	Yellow Perch	YP5 SL					
Sheldrake Lake		1-Jul-01	American Eel	SH12	477.4	71.2	na		
Sheldrake Lake		1-Jul-01	Yellow Perch	SH1	25.2	13.5	12.9		
Sheldrake Lake		1-Jul-01	Yellow Perch	SH10	20.4	12.3	11.9		
Sheldrake Lake		1-Jul-01	Yellow Perch	SH11	18.2	12.3	11.9		
Sheldrake Lake		1-Jul-01	Yellow Perch	SH2	56.5	17.6	17.1		
Sheldrake Lake		1-Jul-01	Yellow Perch	SH3	30.0	14.4	13.6		
Sheldrake Lake		1-Jul-01	Yellow Perch	SH4	56.2	17.1	16.4		
Sheldrake Lake		1-Jul-01	Yellow Perch	SH5	57.5	16.8	16.1		
Sheldrake Lake		1-Jul-01	Yellow Perch	SH6	57.0	17.2	16.6		
Sheldrake Lake		1-Jul-01	Yellow Perch	SH7	34.0	14.6	13.9		
Sheldrake Lake		1-Jul-01	Yellow Perch	SH8	32.0	13.8	13.2		
Sheldrake Lake		1-Jul-01	Yellow Perch	SH9	24.1	12.8	12.4		
Sheldrake Lake		1-May-03	Brook Trout	Trout 1	668.0	39.0	38.2		
Sheldrake Lake		1-May-03	White Sucker	Sucker 1	947.0	44.0	42.0		
Sheldrake Lake		1-May-03	White Sucker	Sucker 2	848.0	43.0	40.9		
Sheldrake Lake		1-May-03	White Sucker	Sucker 3	924.0	43.0	40.8		
Sheldrake Lake		1-May-03	White Sucker	Sucker 4	670.0	40.2	38.6		
Sheldrake Lake		1-May-03	White Sucker	Sucker 5	734.0	41.6	39.0		
Sheldrake Lake		1-May-03	Yellow Perch	Perch 1	72.0	18.9	18.5		
Sheldrake Lake		1-May-03	Yellow Perch	Perch 2	99.0	22.0	21.5		
Sheldrake Lake		1-May-03	Yellow Perch	Perch 3	148.0	24.0	23.3		
Sheldrake Lake		1-May-03	Yellow Perch	Perch 4	29.0	14.5	14.3		
Sheldrake Lake		1-May-03	Yellow Perch	Perch 5	45.0	15.9	15.7		



**TABLE 1 FISH MEASUREMENT DATA**  
**Nova Scotia Department of Transportation and Public Works**  
**Five Island Lake Watershed**  
**Jacques Whitford Project No. NSD09299-6-1**

Location	Subsample Location	Year	Species	ID	Weight (g)	Total Length (cm)	Fork Length (cm)	Muscle Weight (g)	Liver/Organ Weight (g)
Sheldrake Lake		1-Jul-05	Brook Trout	SL-3-BT1	231.1	30.1	29.2	45.3	4.0
Sheldrake Lake		1-Jul-05	Golden Shiner	SL-GSCOMP	37.6 (n=10)	na	na		
Sheldrake Lake		1-Jul-05	White Sucker	SL-11-WS1	147.3	23.4	22.0	31.4	0.7
Sheldrake Lake		1-Jul-05	White Sucker	SL-1-WS1	141.7	23.0	21.5	35.8	2.4
Sheldrake Lake		1-Jul-05	White Sucker	SL-1-WS2	148.9	23.9	22.7	41.2	0.4
Sheldrake Lake		1-Jul-05	White Sucker	SL-2-WS1	159.0	24.0	22.0	45.3	2.7
Sheldrake Lake		1-Jul-05	White Sucker	SL-2-WS2	129.4	22.5	21.0	36.9	1.0
Sheldrake Lake		1-Jul-05	White Sucker	SL-9-WS1	166.9	24.0	22.5	43.5	2.6
Sheldrake Lake		1-Jul-05	Yellow Perch	SL-3-YP1	85.2	18.2	17.5	19.4	0.9
Sheldrake Lake		1-Jul-05	Yellow Perch	SL-3-YP2	79.5	19.1	18.4	18.5	0.9
Sheldrake Lake		1-Jul-05	Yellow Perch	SL-4-YP1	131.7	22.6	21.5	21.3	1.2
Sheldrake Lake		1-Jul-05	Yellow Perch	SL-4-YP2	89.5	19.3	18.5	18.4	0.8
Sheldrake Lake		1-Jul-05	Yellow Perch	SL-YP-COMPL1	82.4	18.7	18.0		
Sheldrake Lake		1-Jul-05	Yellow Perch	SL-YP-COMPL2	33.5	7.8	13.5		
Sheldrake Lake		1-Jul-05	Yellow Perch	SL-YP-COMPL3	110.6	20.9	20.1		
Sheldrake Lake		1-Jul-05	Yellow Perch	SL-YP-COMPL4	44.5	15.6	15.0		
Sheldrake Lake		1-Jul-05	Yellow Perch	SL-YP-COMPM1	33.5	7.8	13.5		
Sheldrake Lake		1-Jul-05	Yellow Perch	SL-YP-COMPM2	44.5	15.6	15.0		

## **ATTACHMENT 2**

Fish Tissue PCB Data, 1994 to 2007

**TABLE 2 FISH TISSUE PCB DATA**  
**Nova Scotia Department of Transportation and Public Works**  
**Five Island Lake Watershed**  
**Jacques Whitford Project No. NSD09299-6-1**

Sample ID	Fish Type	Sample Location	Subsample Location	Tissue Type	Sample Year	PCB Concentration (mg/kg)
FIL Run AE1	American Eel	Hubley Big Lake		muscle	1994	6.25
FIL Run AE2	American Eel	Hubley Big Lake		muscle	1994	<1.5
HBL-AE	American Eel	Hubley Big Lake	3 Brooks Bay	muscle	1994	0.899
HBL-AE	American Eel	Hubley Big Lake	3 Brooks Bay	organ	1994	2.48
HBL-AE2	American Eel	Hubley Big Lake		muscle	1994	2.09
SH12	American Eel	Sheldrake Lake		organ	2001	0.77
SH12	American Eel	Sheldrake Lake		muscle	2001	0.64
FIL-KFCOMP	Banded Killifish	Five Island Lake		whole	2005	8.1
FI-M	Banded Killifish	Five Island Lake	North end	muscle	2007	2.6
FL-KFCOMP	Banded Killifish	Frederick Lake		whole	2005	<0.05
RL-KFCOMP	Banded Killifish	Round Lake		whole	2005	<0.05
SL-KFCOMP	Banded Killifish	Sheldrake Lake		whole	2005	<0.05
SL-M	Banded Killifish	Sheldrake Lake	South end	muscle	2007	<0.05
BT1-N2	Brook Trout	Five Island Lake	mid Lake	muscle	1994	0.625
BT1-N2	Brook Trout	Five Island Lake	mid Lake	organ	1994	1.97
BT2-N2	Brook Trout	Five Island Lake	mid Lake	muscle	1994	4.15
BT2-N2	Brook Trout	Five Island Lake	mid Lake	organ	1994	<0.15
FIL BTO19	Brook Trout	Five Island Lake		muscle	1994	1.28
FL11	Brook Trout	Five Island Lake		organ	2001	0.86
FL11	Brook Trout	Five Island Lake		muscle	2001	0.34
FL13	Brook Trout	Five Island Lake		organ	2001	1.2
FL13	Brook Trout	Five Island Lake		muscle	2001	0.33
FL14	Brook Trout	Five Island Lake		organ	2001	2.5
FL14	Brook Trout	Five Island Lake		muscle	2001	0.17
Trout 1	Brook trout	Five Island Lake		organ	2003	1.5
Trout 1	Brook Trout	Five Island Lake		muscle	2003	0.42
Trout 2	Brook trout	Five Island Lake		organ	2003	66
Trout 2	Brook Trout	Five Island Lake		muscle	2003	4.1
Trout 3	Brook trout	Five Island Lake		organ	2003	1.1
Trout 3	Brook Trout	Five Island Lake		muscle	2003	0.09
Trout 4	Brook trout	Five Island Lake		organ	2003	6.1
Trout 4	Brook Trout	Five Island Lake		muscle	2003	1.3
Trout 5	Brook trout	Five Island Lake		organ	2003	26
Trout 5	Brook Trout	Five Island Lake		muscle	2003	1.4
FIL MB2 BT1	Brook Trout	Five Island Lake		organ	2005	5.1
FIL MB2 BT1	Brook Trout	Five Island Lake		muscle	2005	0.36
FIL MB5 BT1	Brook Trout	Five Island Lake		organ	2005	51
FIL MB5 BT1	Brook Trout	Five Island Lake		muscle	2005	4.7
FIL MB7 BT1	Brook Trout	Five Island Lake		organ	2005	2.5
FIL MB7 BT1	Brook Trout	Five Island Lake		muscle	2005	0.2
FIL MB7 BT2	Brook Trout	Five Island Lake		organ	2005	2.8
FIL MB7 BT2	Brook Trout	Five Island Lake		muscle	2005	1.4
FIL MB8 BT1	Brook Trout	Five Island Lake		organ	2005	0.76
FIL MB8 BT1	Brook Trout	Five Island Lake		muscle	2005	0.44
FIL NB BT1	Brook Trout	Five Island Lake		organ	2005	28
FIL NB BT1	Brook Trout	Five Island Lake		muscle	2005	2.6
FIT-1	Brook Trout	Five Island Lake	Mid lake	muscle	2007	0.15
FIT-2	Brook Trout	Five Island Lake	North end	muscle	2007	1.6
FIT-3	Brook Trout	Five Island Lake	North end	muscle	2007	0.82
FIT-4	Brook Trout	Five Island Lake	North end	muscle	2007	0.85

**TABLE 2 FISH TISSUE PCB DATA**  
**Nova Scotia Department of Transportation and Public Works**  
**Five Island Lake Watershed**  
**Jacques Whitford Project No. NSD09299-6-1**

Sample ID	Fish Type	Sample Location	Subsample Location	Tissue Type	Sample Year	PCB Concentration (mg/kg)
FIT-5	Brook Trout	Five Island Lake	North Bay	muscle	2007	0.81
FL BT1	Brook Trout	Frederick Lake		muscle	1994	<0.15
FL BT10	Brook Trout	Frederick Lake		muscle	1994	<0.15
FL BT11	Brook Trout	Frederick Lake		muscle	1994	<0.15
FL BT2	Brook Trout	Frederick Lake		muscle	1994	<0.15
FL BT3	Brook Trout	Frederick Lake		muscle	1994	<0.15
FL BT4	Brook Trout	Frederick Lake		muscle	1994	<0.15
FL BT5	Brook Trout	Frederick Lake		muscle	1994	<0.15
FL BT6	Brook Trout	Frederick Lake		muscle	1994	<0.15
FL BT7	Brook Trout	Frederick Lake		muscle	1994	<0.15
FL BT8	Brook Trout	Frederick Lake		muscle	1994	<0.15
FL BT9	Brook Trout	Frederick Lake		muscle	1994	<0.15
FR16	Brook Trout	Frederick Lake		organ	2001	0.15
FR16	Brook Trout	Frederick Lake		muscle	2001	<0.05
FR17	Brook Trout	Frederick Lake		organ	2001	0.15
FR17	Brook Trout	Frederick Lake		muscle	2001	<0.05
FR18	Brook Trout	Frederick Lake		organ	2001	<0.97
FR18	Brook Trout	Frederick Lake		muscle	2001	0.05
FL-1-BT1	Brook Trout	Frederick Lake		organ	2005	<0.5
FL-1-BT1	Brook Trout	Frederick Lake		muscle	2005	<0.05
FL-1-BT2	Brook Trout	Frederick Lake		organ	2005	<0.5
FL-1-BT2	Brook Trout	Frederick Lake		muscle	2005	<0.05
FL-2-BT1	Brook Trout	Frederick Lake		organ	2005	<0.2
FL-2-BT1	Brook Trout	Frederick Lake		muscle	2005	<0.05
FL-3-BT1	Brook Trout	Frederick Lake		organ	2005	<0.2
FL-3-BT1	Brook Trout	Frederick Lake		muscle	2005	<0.05
FL-4-BT1	Brook Trout	Frederick Lake		organ	2005	<0.05
FL-4-BT1	Brook Trout	Frederick Lake		muscle	2005	<0.05
FL-5-BT1	Brook Trout	Frederick Lake		organ	2005	<0.1
FL-5-BT1	Brook Trout	Frederick Lake		muscle	2005	<0.05
HBL-BT	Brook Trout	Hublely Big Lake	3 Brooks Bay	muscle	1994	0.183
HBL-BT	Brook Trout	Hublely Big Lake	3 Brooks Bay	organ	1994	0.774
HBL-BT1	Brook Trout	Hublely Big Lake		muscle	1994	0.17
HBL-BT2	Brook Trout	Hublely Big Lake		muscle	1994	0.27
HBL-BT3	Brook Trout	Hublely Big Lake		muscle	1994	<0.15
HBL-BT4	Brook Trout	Hublely Big Lake		muscle	1994	<0.15
HB17	Brook Trout	Hublely Big Lake		muscle	2001	0.09
HB17	Brook Trout	Hublely Big Lake		organ	2001	0.74
Trout 1	Brook trout	Hublely Big Lake		organ	2003	0.26
Trout 1	Brook Trout	Hublely Big Lake		muscle	2003	0.07
Trout 1	Brook trout	Hublely Big Lake		organ	2003	0.2
Trout 1	Brook Trout	Hublely Big Lake		muscle	2003	0.07
Trout 2	Brook trout	Hublely Big Lake		organ	2003	0.5
Trout 2	Brook Trout	Hublely Big Lake		muscle	2003	0.06
Trout 3	Brook trout	Hublely Big Lake		organ	2003	0.3
Trout 3	Brook Trout	Hublely Big Lake		muscle	2003	<0.05
Trout 4	Brook trout	Hublely Big Lake		organ	2003	0.32
Trout 4	Brook Trout	Hublely Big Lake		muscle	2003	<0.05
Trout 5	Brook trout	Hublely Big Lake		organ	2003	0.35

**TABLE 2 FISH TISSUE PCB DATA**  
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Sample ID	Fish Type	Sample Location	Subsample Location	Tissue Type	Sample Year	PCB Concentration (mg/kg)
Trout 5	Brook Trout	Hubley Big Lake		muscle	2003	<0.05
HL-12-BT1	Brook Trout	Hubley Big Lake		organ	2005	<0.5
HL-12-BT1	Brook Trout	Hubley Big Lake		muscle	2005	<0.05
HL-3-BT1	Brook Trout	Hubley Big Lake		organ	2005	0.89
HL-3-BT1	Brook Trout	Hubley Big Lake		muscle	2005	0.08
HLT-1	Brook Trout	Hubley Big Lake	North end	muscle	2007	<0.05
HLT-2	Brook Trout	Hubley Big Lake	North end	muscle	2007	<0.05
HLT-3	Brook Trout	Hubley Big Lake	North end	muscle	2007	0.08
HLT-4	Brook Trout	Hubley Big Lake	North end	muscle	2007	<0.05
BT1 LL	Brook Trout	Round Lake		muscle	1994	<0.15
BT1 LL	Brook trout	Round Lake		organ	1994	<0.15
BT2 LL	Brook Trout	Round Lake		muscle	1994	<0.15
BT2 LL	Brook trout	Round Lake		organ	1994	0.628
BT3 LL	Brook Trout	Round Lake		muscle	1994	<0.15
BT3 LL	Brook trout	Round Lake		organ	1994	<0.15
RL2	Brook Trout	Round Lake		organ	2001	<0.21
RL2	Brook Trout	Round Lake		muscle	2001	<0.05
RL3	Brook Trout	Round Lake		organ	2001	<1.2
RL3	Brook Trout	Round Lake		muscle	2001	<0.05
RL4	Brook Trout	Round Lake		organ	2001	1
RL4	Brook Trout	Round Lake		muscle	2001	<0.05
RL5	Brook Trout	Round Lake		organ	2001	<2.1
RL5	Brook Trout	Round Lake		muscle	2001	<0.05
RL6	Brook Trout	Round Lake		organ	2001	<0.21
RL6	Brook Trout	Round Lake		muscle	2001	<0.05
Trout 1	Brook trout	Round Lake		organ	2003	<0.4
Trout 1	Brook Trout	Round Lake		muscle	2003	<0.05
Trout 2	Brook trout	Round Lake		organ	2003	<0.2
Trout 2	Brook Trout	Round Lake		muscle	2003	<0.05
Trout 3	Brook trout	Round Lake		organ	2003	<0.2
Trout 3	Brook Trout	Round Lake		muscle	2003	<0.05
Trout 4	Brook trout	Round Lake		organ	2003	<0.3
Trout 4	Brook Trout	Round Lake		muscle	2003	<0.07
Trout 5	Brook trout	Round Lake		organ	2003	<0.4
Trout 5	Brook Trout	Round Lake		muscle	2003	<0.05
RL-15-BT1	Brook Trout	Round Lake		organ	2005	<1.0
RL-15-BT1	Brook Trout	Round Lake		muscle	2005	<0.05
RL-17-BT1	Brook Trout	Round Lake		organ	2005	<0.3
RL-17-BT1	Brook Trout	Round Lake		muscle	2005	<0.05
RL-6-BT1	Brook Trout	Round Lake		organ	2005	<0.5
RL-6-BT1	Brook Trout	Round Lake		muscle	2005	<0.05
Trout 1	Brook trout	Sheldrake Lake		organ	2003	28
Trout 1	Brook Trout	Sheldrake Lake		muscle	2003	2.8
SL-3-BT1	Brook Trout	Sheldrake Lake		organ	2005	5.3
SL-3-BT1	Brook Trout	Sheldrake Lake		muscle	2005	0.86
GF10-N1	Golden Shiner	Five Island Lake	north end	whole	1994	1.69
GF11-N1	Golden Shiner	Five Island Lake	north end	whole	1994	4.12
GF12-N1	Golden Shiner	Five Island Lake	north end	whole	1994	4.12
GF13-N1	Golden Shiner	Five Island Lake	north end	whole	1994	5.45

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Sample ID	Fish Type	Sample Location	Subsample Location	Tissue Type	Sample Year	PCB Concentration (mg/kg)
GF14-N1	Golden Shiner	Five Island Lake	north end	whole	1994	4.78
GF15-N1	Golden Shiner	Five Island Lake	north end	whole	1994	2.8
GF1-N1	Golden Shiner	Five Island Lake	north end	whole	1994	1.98
GF2-N1	Golden Shiner	Five Island Lake	north end	whole	1994	2.59
GF3-N1	Golden Shiner	Five Island Lake	north end	whole	1994	<0.15
GF4-N1	Golden Shiner	Five Island Lake	north end	whole	1994	4.21
GF5-N1	Golden Shiner	Five Island Lake	north end	whole	1994	0.374
GF6-N1	Golden Shiner	Five Island Lake	north end	whole	1994	7.89
GF7-N1	Golden Shiner	Five Island Lake	north end	whole	1994	1.23
GF8-N1	Golden Shiner	Five Island Lake	north end	whole	1994	10.5
GF9-N1	Golden Shiner	Five Island Lake	north end	whole	1994	4.37
GS1	Golden Shiner	Five Island Lake		whole	2001	2.1
GS10	Golden Shiner	Five Island Lake		whole	2001	1.3
GS2	Golden Shiner	Five Island Lake		whole	2001	2.1
GS3	Golden Shiner	Five Island Lake		whole	2001	1.3
GS4	Golden Shiner	Five Island Lake		whole	2001	1.9
GS5	Golden Shiner	Five Island Lake		whole	2001	1.3
GS6	Golden Shiner	Five Island Lake		whole	2001	2
GS7	Golden Shiner	Five Island Lake		whole	2001	1.8
GS8	Golden Shiner	Five Island Lake		whole	2001	0.97
GS9	Golden Shiner	Five Island Lake		whole	2001	2
Golden Shiner	Golden Shiner	Five Island Lake		whole	2003	0.49
GS FL 1	Golden Shiner	Frederick Lake		whole	2001	<0.05
GS FL 10	Golden Shiner	Frederick Lake		whole	2001	<0.09
GS FL 2	Golden Shiner	Frederick Lake		whole	2001	<0.05
GS FL 3	Golden Shiner	Frederick Lake		whole	2001	<0.05
GS FL 4	Golden Shiner	Frederick Lake		whole	2001	<0.05
GS FL 5	Golden Shiner	Frederick Lake		whole	2001	<0.2
GS FL 6	Golden Shiner	Frederick Lake		whole	2001	<0.09
GS FL 7	Golden Shiner	Frederick Lake		whole	2001	<0.25
GS FL 8	Golden Shiner	Frederick Lake		whole	2001	<0.05
GS FL 9	Golden Shiner	Frederick Lake		whole	2001	<1.7
GS HB 1	Golden Shiner	Hubley Big Lake		whole	2001	0.45
GS HB 2	Golden Shiner	Hubley Big Lake		whole	2001	0.15
GS HB 3	Golden Shiner	Hubley Big Lake		whole	2001	0.15
Golden Shiner	Golden Shiner	Hubley Big Lake		whole	2003	0.25
HL GS1	Golden Shiner	Hubley Big Lake		whole	2005	<0.05
RL1	Golden Shiner	Round Lake		whole	2001	0.05
RL10	Golden Shiner	Round Lake		whole	2001	<0.09
RL2	Golden Shiner	Round Lake		whole	2001	0.06
RL3	Golden Shiner	Round Lake		whole	2001	0.06
RL4	Golden Shiner	Round Lake		whole	2001	<0.05
RL5	Golden Shiner	Round Lake		whole	2001	<0.12
RL6	Golden Shiner	Round Lake		whole	2001	<0.05
RL7	Golden Shiner	Round Lake		whole	2001	<0.05
RL8	Golden Shiner	Round Lake		whole	2001	0.07
RL9	Golden Shiner	Round Lake		whole	2001	0.06
Golden Shiner	Golden Shiner	Round Lake		whole	2003	0.05
RL-GS-COMP	Golden Shiner	Round Lake		whole	2005	<0.05



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Sample ID	Fish Type	Sample Location	Subsample Location	Tissue Type	Sample Year	PCB Concentration (mg/kg)
SL-GSCOMP	Golden Shiner	Sheldrake Lake		whole	2005	0.06
-	Minnows	Hubley Lake	-		-	-
RT1 LL	Rainbow Trout	Round Lake		muscle	1994	0.165
RT1 LL	Rainbow trout	Round Lake		organ	1994	0.565
RT2 LL	Rainbow Trout	Round Lake		muscle	1994	<0.15
RT2 LL	Rainbow trout	Round Lake		organ	1994	<0.15
RT3 LL	Rainbow Trout	Round Lake		muscle	1994	<0.15
RT3 LL	Rainbow trout	Round Lake		organ	1994	0.538
RT4 LL	Rainbow Trout	Round Lake		muscle	1994	<0.15
RT4 LL	Rainbow trout	Round Lake		organ	1994	0.968
RL10	Rainbow Trout	Round Lake		organ	2001	<0.44
RL10	Rainbow Trout	Round Lake		muscle	2001	<0.05
RL7	Rainbow Trout	Round Lake		organ	2001	<0.17
RL7	Rainbow Trout	Round Lake		muscle	2001	<0.05
RL8	Rainbow Trout	Round Lake		organ	2001	<0.26
RL8	Rainbow Trout	Round Lake		muscle	2001	<0.05
RL9	Rainbow Trout	Round Lake		organ	2001	<0.27
RL9	Rainbow Trout	Round Lake		muscle	2001	<0.05
RL-14-RT1	Rainbow Trout	Round Lake		organ	2005	<0.3
RL-14-RT1	Rainbow Trout	Round Lake		muscle	2005	0.07
RL-14-RT2	Rainbow Trout	Round Lake		organ	2005	0.69
RL-14-RT2	Rainbow Trout	Round Lake		muscle	2005	0.12
RL-18-RT1	Rainbow Trout	Round Lake		organ	2005	<1.0
RL-18-RT1	Rainbow Trout	Round Lake		muscle	2005	0.18
WP1 LL	White Perch	Round Lake		muscle	1994	<0.15
WP1 LL	White Perch	Round Lake		organ	1994	<0.15
WP2 LL	White Perch	Round Lake		muscle	1994	<0.15
WP3 LL	White Perch	Round Lake		muscle	1994	<0.15
WP4 LL	White Perch	Round Lake		muscle	1994	<0.15
WP5 LL	White Perch	Round Lake		muscle	1994	<0.15
WP6 LL	White Perch	Round Lake		muscle	1994	<0.15
WP7 LL	White Perch	Round Lake		muscle	1994	<0.15
WP8 LL	White Perch	Round Lake		muscle	1994	<0.15
WP9 LL	White Perch	Round Lake		muscle	1994	<0.15
RL1	White Perch	Round Lake		muscle	2001	0.06
RL-13-WP1	White Perch	Round Lake		organ	2005	<0.2
RL-13-WP1	White Perch	Round Lake		muscle	2005	<0.05
RL-14-WP1	White Perch	Round Lake		organ	2005	<0.5
RL-14-WP1	White Perch	Round Lake		muscle	2005	<0.05
RL-17-WP1	White Perch	Round Lake		muscle	2005	<0.05
WS1-N1	White Sucker	Five Island Lake	north end	muscle	1994	8.03
WS1-N1	White Sucker	Five Island Lake	north end	organ	1994	73
WS1-N3	White Sucker	Five Island Lake	south end	muscle	1994	48
WS1-N3	White Sucker	Five Island Lake	south end	organ	1994	123
WS2-N1	White Sucker	Five Island Lake	north end	muscle	1994	4.4
WS2-N1	White Sucker	Five Island Lake	north end	organ	1994	20.2
WS2-N3	White Sucker	Five Island Lake	south end	muscle	1994	4.05
WS2-N3	White Sucker	Five Island Lake	south end	organ	1994	48
WS3-N3	White Sucker	Five Island Lake	south end	muscle	1994	8

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Sample ID	Fish Type	Sample Location	Subsample Location	Tissue Type	Sample Year	PCB Concentration (mg/kg)
WS3-N3	White Sucker	Five Island Lake	south end	organ	1994	148
WS4-N3	White Sucker	Five Island Lake	south end	muscle	1994	68
WS4-N3	White Sucker	Five Island Lake	south end	organ	1994	1220
WS5-N3	White Sucker	Five Island Lake	south end	muscle	1994	20.3
WS5-N3	White Sucker	Five Island Lake	south end	organ	1994	155
FL12	White Sucker	Five Island Lake		muscle	2001	0.17
Sucker 1	White Sucker	Five Island Lake		organ	2003	3.8
Sucker 1	White Sucker	Five Island Lake		muscle	2003	3.3
Sucker 2	White Sucker	Five Island Lake		organ	2003	15
Sucker 2	White Sucker	Five Island Lake		muscle	2003	3.8
FIL MB5 WS1	White Sucker	Five Island Lake		organ	2005	6.5
FIL MB5 WS1	White Sucker	Five Island Lake		muscle	2005	0.32
FIL MB5 WS2	White Sucker	Five Island Lake		organ	2005	1.2
FIL MB5 WS2	White Sucker	Five Island Lake		muscle	2005	0.13
FIL MB7 WS1	White Sucker	Five Island Lake		organ	2005	7
FIL MB7 WS1	White Sucker	Five Island Lake		muscle	2005	5.6
FIL NB3 WS1	White Sucker	Five Island Lake		organ	2005	35
FIL NB3 WS1	White Sucker	Five Island Lake		muscle	2005	2.7
FIL MB3 WS3	White Sucker	Five Island Lake		muscle	2005	1
FIL NB3 WS3	White Sucker	Five Island Lake		organ	2005	14
FIL MB3 WS1	White Sucker	Five Island Lake		muscle	2005	1.8
FIL MB3 WS1	White Sucker	Five Island Lake		organ	2005	5
FIS-1	White Sucker	Five Island Lake	North Bay	muscle	2007	6.8
FIS-2	White Sucker	Five Island Lake	North Bay	muscle	2007	0.1
FIS-3	White Sucker	Five Island Lake	North end	muscle	2007	6.6
FIS-4	White Sucker	Five Island Lake	North end	muscle	2007	0.4
FIS-5	White Sucker	Five Island Lake	North end	muscle	2007	0.05
FIS-6	White Sucker	Five Island Lake	North end	muscle	2007	0.12
HB16	White Sucker	Hubley Big Lake		muscle	2001	0.1
HB16	White Sucker	Hubley Big Lake		organ	2001	0.39
Sucker 1	White Sucker	Hubley Big Lake		organ	2003	0.39
Sucker 1	White Sucker	Hubley Big Lake		muscle	2003	0.49
Sucker 2	White Sucker	Hubley Big Lake		organ	2003	0.55
Sucker 2	White Sucker	Hubley Big Lake		muscle	2003	0.3
Sucker 3	White Sucker	Hubley Big Lake		organ	2003	0.15
Sucker 3	White Sucker	Hubley Big Lake		muscle	2003	0.11
HL-1-WS2	White Sucker	Hubley Big Lake		organ	2005	0.4
HL-1-WS2	White Sucker	Hubley Big Lake		muscle	2005	0.05
HL-1-WS3	White Sucker	Hubley Big Lake		organ	2005	0.19
HL-1-WS3	White Sucker	Hubley Big Lake		muscle	2005	0.05
HL-8-WS1	White Sucker	Hubley Big Lake		organ	2005	0.18
HL-8-WS1	White Sucker	Hubley Big Lake		muscle	2005	0.06
HL-8-WS2	White Sucker	Hubley Big Lake		organ	2005	0.47
HL-8-WS2	White Sucker	Hubley Big Lake		muscle	2005	0.06
HL-8-WS3	White Sucker	Hubley Big Lake		organ	2005	<0.3
HL-8-WS3	White Sucker	Hubley Big Lake		muscle	2005	0.06
HL-8-WS4	White Sucker	Hubley Big Lake		organ	2005	<0.2
HL-8-WS4	White Sucker	Hubley Big Lake		muscle	2005	<0.05
HLS-1	White Sucker	Hubley Lake	North end	muscle	2007	0.11

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Sample ID	Fish Type	Sample Location	Subsample Location	Tissue Type	Sample Year	PCB Concentration (mg/kg)
HLS-2	White Sucker	Hubley Lake	North end	muscle	2007	<0.05
HLS-3	White Sucker	Hubley Lake	North end	muscle	2007	<0.05
HLS-4	White Sucker	Hubley Lake	North end	muscle	2007	<0.05
HLS-5	White Sucker	Hubley Lake	North end	muscle	2007	<0.05
WS1 LL	White Sucker	Round Lake		muscle	1994	<0.15
WS1 LL	White Sucker	Round Lake		organ	1994	<0.15
WS10 LL	White Sucker	Round Lake		muscle	1994	<0.15
WS10 LL	White Sucker	Round Lake		organ	1994	<0.15
WS2 LL	White Sucker	Round Lake		muscle	1994	<0.15
WS2 LL	White Sucker	Round Lake		organ	1994	<0.15
WS3 LL	White Sucker	Round Lake		muscle	1994	<0.15
WS3 LL	White Sucker	Round Lake		organ	1994	<0.15
WS4 LL	White Sucker	Round Lake		muscle	1994	<0.15
WS4 LL	White Sucker	Round Lake		organ	1994	<0.15
WS5 LL	White Sucker	Round Lake		muscle	1994	<0.15
WS5 LL	White Sucker	Round Lake		organ	1994	<0.15
WS6 LL	White Sucker	Round Lake		muscle	1994	<0.15
WS6 LL	White Sucker	Round Lake		organ	1994	<0.15
WS7 LL	White Sucker	Round Lake		muscle	1994	<0.15
WS7 LL	White Sucker	Round Lake		organ	1994	<0.15
WS8 LL	White Sucker	Round Lake		muscle	1994	<0.15
WS8 LL	White Sucker	Round Lake		organ	1994	<0.15
WS9 LL	White Sucker	Round Lake		muscle	1994	<0.15
WS9 LL	White Sucker	Round Lake		organ	1994	<0.15
RL14	White Sucker	Round Lake		muscle	2001	<0.21
RL15	White Sucker	Round Lake		organ	2001	<0.4
RL15	White Sucker	Round Lake		muscle	2001	<0.05
RL16	White Sucker	Round Lake		muscle	2001	<0.05
RL17	White Sucker	Round Lake		organ	2001	<0.17
RL17	White Sucker	Round Lake		muscle	2001	<0.05
RL18	White Sucker	Round Lake		muscle	2001	<0.05
RL19	White Sucker	Round Lake		organ	2001	<0.17
RL19	White Sucker	Round Lake		muscle	2001	<0.2
RL20	White Sucker	Round Lake		muscle	2001	<0.05
RL21	White Sucker	Round Lake		muscle	2001	<0.05
RL22	White Sucker	Round Lake		muscle	2001	<0.05
Sucker 1	White Sucker	Round Lake		organ	2003	<0.08
Sucker 1	White Sucker	Round Lake		muscle	2003	<0.05
Sucker 2	White Sucker	Round Lake		organ	2003	<0.08
Sucker 2	White Sucker	Round Lake		muscle	2003	<0.05
Sucker 3	White Sucker	Round Lake		organ	2003	<0.09
Sucker 3	White Sucker	Round Lake		muscle	2003	<0.05
Sucker 4	White Sucker	Round Lake		organ	2003	<0.09
Sucker 4	White Sucker	Round Lake		muscle	2003	<0.05
Sucker 5	White Sucker	Round Lake		organ	2003	<0.1
Sucker 5	White Sucker	Round Lake		muscle	2003	<0.05
RL-12-WS1	White Sucker	Round Lake		organ	2005	<0.05
RL-12-WS1	White Sucker	Round Lake		muscle	2005	<0.05
RL-1-WS1	White Sucker	Round Lake		organ	2005	<0.05

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Sample ID	Fish Type	Sample Location	Subsample Location	Tissue Type	Sample Year	PCB Concentration (mg/kg)
RL-1-WS1	White Sucker	Round Lake		muscle	2005	<0.05
RL-4-WS1	White Sucker	Round Lake		organ	2005	<0.05
RL-4-WS1	White Sucker	Round Lake		muscle	2005	<0.05
RL-4-WS3	White Sucker	Round Lake		organ	2005	<0.05
RL-4-WS3	White Sucker	Round Lake		muscle	2005	<0.05
RL-4-WS4	White Sucker	Round Lake		organ	2005	<0.1
RL-4-WS4	White Sucker	Round Lake		muscle	2005	<0.05
RL-5-WS2	White Sucker	Round Lake		organ	2005	<0.2
RL-5-WS2	White Sucker	Round Lake		muscle	2005	<0.05
Sucker 1	White Sucker	Sheldrake Lake		organ	2003	35
Sucker 1	White Sucker	Sheldrake Lake		muscle	2003	9.2
Sucker 2	White Sucker	Sheldrake Lake		organ	2003	33
Sucker 2	White Sucker	Sheldrake Lake		muscle	2003	13
Sucker 3	White Sucker	Sheldrake Lake		organ	2003	9.7
Sucker 3	White Sucker	Sheldrake Lake		muscle	2003	5.2
Sucker 4	White Sucker	Sheldrake Lake		organ	2003	24
Sucker 4	White Sucker	Sheldrake Lake		muscle	2003	3.6
Sucker 5	White Sucker	Sheldrake Lake		organ	2003	62
Sucker 5	White Sucker	Sheldrake Lake		muscle	2003	14
SL-11-WS1	White Sucker	Sheldrake Lake		organ	2005	<2
SL-11-WS1	White Sucker	Sheldrake Lake		muscle	2005	<0.05
SL-1-WS1	White Sucker	Sheldrake Lake		organ	2005	0.1
SL-1-WS1	White Sucker	Sheldrake Lake		muscle	2005	<0.05
SL-1-WS2	White Sucker	Sheldrake Lake		organ	2005	<7.0
SL-1-WS2	White Sucker	Sheldrake Lake		muscle	2005	<0.05
SL-2-WS1	White Sucker	Sheldrake Lake		organ	2005	0.2
SL-2-WS1	White Sucker	Sheldrake Lake		muscle	2005	<0.05
SL-2-WS2	White Sucker	Sheldrake Lake		organ	2005	<0.5
SL-2-WS2	White Sucker	Sheldrake Lake		muscle	2005	0.07
SL-9-WS1	White Sucker	Sheldrake Lake		organ	2005	0.8
SL-9-WS1	White Sucker	Sheldrake Lake		muscle	2005	<0.05
SLS-1	White Sucker	Sheldrake Lake	Mid lake	muscle	2007	<0.05
SLS-2	White Sucker	Sheldrake Lake	Mid lake	muscle	2007	<0.05
SLS-3	White Sucker	Sheldrake Lake	Mid lake	muscle	2007	<0.05
SLS-4	White Sucker	Sheldrake Lake	Mid lake	muscle	2007	0.07
SLS-5	White Sucker	Sheldrake Lake	Mid lake	muscle	2007	<0.05
SLS-6	White Sucker	Sheldrake Lake	Mid lake	muscle	2007	<0.05
FIL YP1	Yellow Perch	Five Island Lake		muscle	1994	2.13
FIL YP2	Yellow Perch	Five Island Lake		muscle	1994	0.87
FIL YP3	Yellow Perch	Five Island Lake		muscle	1994	<0.15
YP1-N1	Yellow Perch	Five Island Lake	north end	muscle	1994	7.5
YP1-N1	Yellow Perch	Five Island Lake	north end	organ	1994	394
YP1-N2	Yellow Perch	Five Island Lake	mid Lake	muscle	1994	3.25
YP1-N2	Yellow Perch	Five Island Lake	mid Lake	organ	1994	132
YP2-N1	Yellow Perch	Five Island Lake	north end	muscle	1994	21.5
YP2-N2	Yellow Perch	Five Island Lake	mid Lake	muscle	1994	62
YP3-N1	Yellow Perch	Five Island Lake	north end	muscle	1994	7.35
FL1	Yellow Perch	Five Island Lake		muscle	2001	0.94
FL1	Yellow Perch	Five Island Lake		organ	2001	1.8

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Sample ID	Fish Type	Sample Location	Subsample Location	Tissue Type	Sample Year	PCB Concentration (mg/kg)
FL10	Yellow Perch	Five Island Lake		muscle	2001	0.59
FL2	Yellow Perch	Five Island Lake		organ	2001	4.5
FL2	Yellow Perch	Five Island Lake		muscle	2001	2.8
FL3	Yellow Perch	Five Island Lake		muscle	2001	0.27
FL4	Yellow Perch	Five Island Lake		organ	2001	5.3
FL4	Yellow Perch	Five Island Lake		muscle	2001	1.7
FL5	Yellow Perch	Five Island Lake		organ	2001	6.3
FL5	Yellow Perch	Five Island Lake		muscle	2001	1.2
FL6	Yellow Perch	Five Island Lake		muscle	2001	0.43
FL7	Yellow Perch	Five Island Lake		organ	2001	1.6
FL7	Yellow Perch	Five Island Lake		muscle	2001	0.46
FL9	Yellow Perch	Five Island Lake		muscle	2001	0.92
Perch 1	Yellow Perch	Five Island Lake		organ	2003	8.2
Perch 1	Yellow Perch	Five Island Lake		muscle	2003	1
Perch 2	Yellow Perch	Five Island Lake		organ	2003	2
Perch 2	Yellow Perch	Five Island Lake		muscle	2003	0.69
Perch 3	Yellow Perch	Five Island Lake		organ	2003	3.9
Perch 3	Yellow Perch	Five Island Lake		muscle	2003	1.5
Perch 4	Yellow Perch	Five Island Lake		organ	2003	2.2
Perch 4	Yellow Perch	Five Island Lake		muscle	2003	0.55
Perch 5	Yellow Perch	Five Island Lake		organ	2003	6.8
Perch 5	Yellow Perch	Five Island Lake		muscle	2003	4.8
FIL MB8 YP2	Yellow Perch	Five Island Lake		muscle	2005	<0.05
FIL MB8-YP1	Yellow Perch	Five Island Lake		muscle	2005	0.05
FIL NB1 YP1	Yellow Perch	Five Island Lake		muscle	2005	1.1
FIL NB1 YP2	Yellow Perch	Five Island Lake		muscle	2005	0.57
FIL NB2 YP1	Yellow Perch	Five Island Lake		muscle	2005	0.83
FIL NB2 YP3	Yellow Perch	Five Island Lake		muscle	2005	1.3
FIP-1	Yellow Perch	Five Island Lake	North end	muscle	2007	0.15
FIP-2	Yellow Perch	Five Island Lake	North end	muscle	2007	0.05
FIP-3	Yellow Perch	Five Island Lake	North end	muscle	2007	0.37
FIP-4	Yellow Perch	Five Island Lake	North end	muscle	2007	0.16
FIP-5	Yellow Perch	Five Island Lake	North end	muscle	2007	1.2
FIP-6	Yellow Perch	Five Island Lake	North end	muscle	2007	1.6
FL YP1	Yellow Perch	Frederick Lake		muscle	1994	<0.15
FL YP10	Yellow Perch	Frederick Lake		muscle	1994	<0.15
FL YP11	Yellow Perch	Frederick Lake		muscle	1994	<0.15
FL YP12	Yellow Perch	Frederick Lake		muscle	1994	<0.15
FL YP13	Yellow Perch	Frederick Lake		muscle	1994	<0.15
FL YP14	Yellow Perch	Frederick Lake		muscle	1994	<0.15
FL YP16	Yellow Perch	Frederick Lake		muscle	1994	<0.15
FL YP2	Yellow Perch	Frederick Lake		muscle	1994	<0.15
FL YP3	Yellow Perch	Frederick Lake		muscle	1994	<0.15
FL YP4	Yellow Perch	Frederick Lake		muscle	1994	<0.15
FL YP5	Yellow Perch	Frederick Lake		muscle	1994	<0.15
FL YP6	Yellow Perch	Frederick Lake		muscle	1994	<0.15
FL YP7	Yellow Perch	Frederick Lake		muscle	1994	<0.15
FL YP8	Yellow Perch	Frederick Lake		muscle	1994	<0.15
FL YP9	Yellow Perch	Frederick Lake		muscle	1994	<0.15

**TABLE 2 FISH TISSUE PCB DATA**  
**Nova Scotia Department of Transportation and Public Works**  
**Five Island Lake Watershed**  
**Jacques Whitford Project No. NSD09299-6-1**

Sample ID	Fish Type	Sample Location	Subsample Location	Tissue Type	Sample Year	PCB Concentration (mg/kg)
FR1	Yellow Perch	Frederick Lake		organ	2001	<2.3
FR1	Yellow Perch	Frederick Lake		muscle	2001	<0.05
FR10	Yellow Perch	Frederick Lake		organ	2001	<1.6
FR10	Yellow Perch	Frederick Lake		muscle	2001	<0.06
FR15	Yellow Perch	Frederick Lake		organ	2001	<0.7
FR15	Yellow Perch	Frederick Lake		muscle	2001	<0.05
FR2	Yellow Perch	Frederick Lake		organ	2001	<1.7
FR2	Yellow Perch	Frederick Lake		muscle	2001	<0.06
FR4	Yellow Perch	Frederick Lake		organ	2001	<2.8
FR4	Yellow Perch	Frederick Lake		muscle	2001	<0.1
FR5	Yellow Perch	Frederick Lake		organ	2001	<1.6
FR5	Yellow Perch	Frederick Lake		muscle	2001	<0.05
FR6	Yellow Perch	Frederick Lake		organ	2001	<1.2
FR6	Yellow Perch	Frederick Lake		muscle	2001	<0.05
FR7	Yellow Perch	Frederick Lake		organ	2001	<1.7
FR7	Yellow Perch	Frederick Lake		muscle	2001	<0.05
FR8	Yellow Perch	Frederick Lake		organ	2001	<0.32
FR8	Yellow Perch	Frederick Lake		muscle	2001	<0.05
FR9	Yellow Perch	Frederick Lake		organ	2001	<0.29
FR9	Yellow Perch	Frederick Lake		muscle	2001	<0.05
Perch 1	Yellow Perch	Frederick Lake		organ	2003	<0.1
Perch 1	Yellow Perch	Frederick Lake		muscle	2003	<0.2
Perch 2	Yellow Perch	Frederick Lake		organ	2003	<0.4
Perch 2	Yellow Perch	Frederick Lake		muscle	2003	<0.1
Perch 3	Yellow Perch	Frederick Lake		organ	2003	<0.5
Perch 3	Yellow Perch	Frederick Lake		muscle	2003	<0.2
Perch 4	Yellow Perch	Frederick Lake		organ	2003	<0.5
Perch 4	Yellow Perch	Frederick Lake		muscle	2003	<0.1
Perch 5	Yellow Perch	Frederick Lake		organ	2003	<0.1
Perch 5	Yellow Perch	Frederick Lake		muscle	2003	<1.1
FL-3-YP2	Yellow Perch	Frederick Lake		muscle	2005	<0.05
FL-3-YP3	Yellow Perch	Frederick Lake		muscle	2005	<0.05
FL-3-YP4	Yellow Perch	Frederick Lake		muscle	2005	<0.05
FL-4-YP1	Yellow Perch	Frederick Lake		muscle	2005	<0.05
FL-4-YP2	Yellow Perch	Frederick Lake		muscle	2005	<0.05
FL-4-YP3	Yellow Perch	Frederick Lake		muscle	2005	<0.05
FLYPCOMPL1	Yellow Perch	Frederick Lake		organ	2005	<0.2
FLYPCOMPL2	Yellow Perch	Frederick Lake		organ	2005	<0.3
HBL-YP1	Yellow Perch	Hubley Big Lake	3 Brooks Bay	muscle	1994	6.03
HBL-YP1	Yellow Perch	Hubley Big Lake	3 Brooks Bay	organ	1994	465
HBL-YP10	Yellow Perch	Hubley Big Lake	3 Brooks Bay	muscle	1994	<0.15
HBL-YP2	Yellow Perch	Hubley Big Lake	3 Brooks Bay	muscle	1994	6.4
HBL-YP2	Yellow Perch	Hubley Big Lake	3 Brooks Bay	organ	1994	955
HBL-YP3	Yellow Perch	Hubley Big Lake	3 Brooks Bay	muscle	1994	5.87
HBL-YP3	Yellow Perch	Hubley Big Lake	3 Brooks Bay	organ	1994	545
HBL-YP36	Yellow Perch	Hubley Big Lake		muscle	1994	<0.15
HBL-YP37	Yellow Perch	Hubley Big Lake		muscle	1994	0.35
HBL-YP38	Yellow Perch	Hubley Big Lake		muscle	1994	<0.15
HBL-YP39	Yellow Perch	Hubley Big Lake		muscle	1994	<0.15

**TABLE 2 FISH TISSUE PCB DATA**  
**Nova Scotia Department of Transportation and Public Works**  
**Five Island Lake Watershed**  
**Jacques Whitford Project No. NSD09299-6-1**

Sample ID	Fish Type	Sample Location	Subsample Location	Tissue Type	Sample Year	PCB Concentration (mg/kg)
HBL-YP4	Yellow Perch	Hubley Big Lake	3 Brooks Bay	muscle	1994	12.7
HBL-YP40	Yellow Perch	Hubley Big Lake		muscle	1994	<0.15
HBL-YP41	Yellow Perch	Hubley Big Lake		muscle	1994	<0.15
HBL-YP42	Yellow Perch	Hubley Big Lake		muscle	1994	<0.15
HBL-YP43	Yellow Perch	Hubley Big Lake		muscle	1994	<0.15
HBL-YP44	Yellow Perch	Hubley Big Lake		muscle	1994	<0.15
HBL-YP45	Yellow Perch	Hubley Big Lake		muscle	1994	<0.15
HBL-YP46	Yellow Perch	Hubley Big Lake		muscle	1994	<0.15
HBL-YP47	Yellow Perch	Hubley Big Lake		muscle	1994	<0.15
HBL-YP48	Yellow Perch	Hubley Big Lake		muscle	1994	<0.15
HBL-YP49	Yellow Perch	Hubley Big Lake		muscle	1994	<0.75
HBL-YP5	Yellow Perch	Hubley Big Lake	3 Brooks Bay	muscle	1994	5.9
HBL-YP50	Yellow Perch	Hubley Big Lake		muscle	1994	<0.15
HBL-YP51	Yellow Perch	Hubley Big Lake		muscle	1994	<0.15
HBL-YP52	Yellow Perch	Hubley Big Lake		muscle	1994	<0.15
HBL-YP53	Yellow Perch	Hubley Big Lake		muscle	1994	<0.15
HBL-YP54	Yellow Perch	Hubley Big Lake		muscle	1994	<0.15
HBL-YP55	Yellow Perch	Hubley Big Lake		muscle	1994	<0.15
HBL-YP6	Yellow Perch	Hubley Big Lake	3 Brooks Bay	muscle	1994	<0.15
HBL-YP7	Yellow Perch	Hubley Big Lake	3 Brooks Bay	muscle	1994	1.78
HBL-YP8	Yellow Perch	Hubley Big Lake	3 Brooks Bay	muscle	1994	<0.15
HBL-YP9	Yellow Perch	Hubley Big Lake	3 Brooks Bay	muscle	1994	<0.15
HB1	Yellow Perch	Hubley Big Lake		organ	2001	<1.1
HB1	Yellow Perch	Hubley Big Lake		muscle	2001	0.19
HB10	Yellow Perch	Hubley Big Lake		organ	2001	<1.4
HB10	Yellow Perch	Hubley Big Lake		muscle	2001	0.26
HB11	Yellow Perch	Hubley Big Lake		muscle	2001	0.21
HB12	Yellow Perch	Hubley Big Lake		organ	2001	<2.1
HB12	Yellow Perch	Hubley Big Lake		muscle	2001	0.21
HB13	Yellow Perch	Hubley Big Lake		muscle	2001	0.15
HB14	Yellow Perch	Hubley Big Lake		organ	2001	2
HB14	Yellow Perch	Hubley Big Lake		muscle	2001	0.25
HB15	Yellow Perch	Hubley Big Lake		muscle	2001	0.37
HB2	Yellow Perch	Hubley Big Lake		muscle	2001	0.08
HB3	Yellow Perch	Hubley Big Lake		organ	2001	4
HB3	Yellow Perch	Hubley Big Lake		muscle	2001	1.6
HB4	Yellow Perch	Hubley Big Lake		muscle	2001	0.18
HB5	Yellow Perch	Hubley Big Lake		muscle	2001	0.45
HB6	Yellow Perch	Hubley Big Lake		organ	2001	<1.7
HB6	Yellow Perch	Hubley Big Lake		muscle	2001	0.25
HB7	Yellow Perch	Hubley Big Lake		organ	2001	0.54
HB7	Yellow Perch	Hubley Big Lake		muscle	2001	0.18
HB8	Yellow Perch	Hubley Big Lake		organ	2001	1.6
HB8	Yellow Perch	Hubley Big Lake		muscle	2001	0.18
HB9	Yellow Perch	Hubley Big Lake		organ	2001	<2.1
HB9	Yellow Perch	Hubley Big Lake		muscle	2001	0.25
Perch 1	Yellow Perch	Hubley Big Lake		organ	2003	1
Perch 1	Yellow Perch	Hubley Big Lake		muscle	2003	0.26
Perch 2	Yellow Perch	Hubley Big Lake		organ	2003	<0.9

**TABLE 2 FISH TISSUE PCB DATA**  
**Nova Scotia Department of Transportation and Public Works**  
**Five Island Lake Watershed**  
**Jacques Whitford Project No. NSD09299-6-1**

Sample ID	Fish Type	Sample Location	Subsample Location	Tissue Type	Sample Year	PCB Concentration (mg/kg)
Perch 2	Yellow Perch	Hubley Big Lake		muscle	2003	0.18
Perch 3	Yellow Perch	Hubley Big Lake		organ	2003	<0.9
Perch 3	Yellow Perch	Hubley Big Lake		muscle	2003	0.1
Perch 4	Yellow Perch	Hubley Big Lake		organ	2003	0.55
Perch 4	Yellow Perch	Hubley Big Lake		muscle	2003	0.23
Perch 5	Yellow Perch	Hubley Big Lake		organ	2003	<0.8
Perch 5	Yellow Perch	Hubley Big Lake		muscle	2003	0.17
HL YPCOMPL	Yellow Perch	Hubley Big Lake		organ	2005	<0.5
HL YPCOMPM	Yellow Perch	Hubley Big Lake		muscle	2005	<0.05
HL-1-YP1	Yellow Perch	Hubley Big Lake		organ	2005	0.86
HL-1-YP1	Yellow Perch	Hubley Big Lake		muscle	2005	<0.05
HL-1-YP3	Yellow Perch	Hubley Big Lake		muscle	2005	<0.05
HL-1-YP4	Yellow Perch	Hubley Big Lake		muscle	2005	<0.05
HL-7-YP1	Yellow Perch	Hubley Big Lake		organ	2005	<1.0
HL-7-YP1	Yellow Perch	Hubley Big Lake		muscle	2005	<0.05
HL-8-YP1	Yellow Perch	Hubley Big Lake		organ	2005	0.66
HL-8-YP1	Yellow Perch	Hubley Big Lake		muscle	2005	<0.05
HLP-1	Yellow Perch	Hubley Lake	Mid lake	muscle	2007	<0.05
HLP-2	Yellow Perch	Hubley Lake	Mid lake	muscle	2007	<0.05
HLP-3	Yellow Perch	Hubley Lake	Mid lake	muscle	2007	0.08
HLP-4	Yellow Perch	Hubley Lake	Mid lake	muscle	2007	<0.05
HLP-5	Yellow Perch	Hubley Lake	Mid lake	muscle	2007	<0.05
YP1 SL	Yellow Perch	Sheldrake Lake		muscle	1994	<0.15
YP2 SL	Yellow Perch	Sheldrake Lake		muscle	1994	<0.15
YP3 SL	Yellow Perch	Sheldrake Lake		muscle	1994	<0.15
YP4 SL	Yellow Perch	Sheldrake Lake		muscle	1994	<0.15
YP5 SL	Yellow Perch	Sheldrake Lake		muscle	1994	<0.15
SH1	Yellow Perch	Sheldrake Lake		organ	2001	<2.3
SH1	Yellow Perch	Sheldrake Lake		muscle	2001	0.15
SH10	Yellow Perch	Sheldrake Lake		organ	2001	<0.9
SH10	Yellow Perch	Sheldrake Lake		muscle	2001	<0.05
SH2	Yellow Perch	Sheldrake Lake		organ	2001	<1.1
SH2	Yellow Perch	Sheldrake Lake		muscle	2001	0.05
SH3	Yellow Perch	Sheldrake Lake		organ	2001	<1.2
SH3	Yellow Perch	Sheldrake Lake		muscle	2001	0.06
SH4	Yellow Perch	Sheldrake Lake		organ	2001	<1.5
SH4	Yellow Perch	Sheldrake Lake		muscle	2001	0.05
SH5	Yellow Perch	Sheldrake Lake		organ	2001	0.71
SH5	Yellow Perch	Sheldrake Lake		muscle	2001	<0.05
SH6	Yellow Perch	Sheldrake Lake		organ	2001	<0.75
SH6	Yellow Perch	Sheldrake Lake		muscle	2001	<0.05
SH7	Yellow Perch	Sheldrake Lake		organ	2001	<1.4
SH7	Yellow Perch	Sheldrake Lake		muscle	2001	<0.1
SH8	Yellow Perch	Sheldrake Lake		organ	2001	1.2
SH8	Yellow Perch	Sheldrake Lake		muscle	2001	<0.1
SH9	Yellow Perch	Sheldrake Lake		organ	2001	<1.5
SH9	Yellow Perch	Sheldrake Lake		muscle	2001	0.06
Perch 1	Yellow Perch	Sheldrake Lake		organ	2003	<0.4
Perch 1	Yellow Perch	Sheldrake Lake		muscle	2003	<0.08



**TABLE 2 FISH TISSUE PCB DATA**  
**Nova Scotia Department of Transportation and Public Works**  
**Five Island Lake Watershed**  
**Jacques Whitford Project No. NSD09299-6-1**

Sample ID	Fish Type	Sample Location	Subsample Location	Tissue Type	Sample Year	PCB Concentration (mg/kg)
Perch 2	Yellow Perch	Sheldrake Lake		organ	2003	<1
Perch 2	Yellow Perch	Sheldrake Lake		muscle	2003	<0.1
Perch 3	Yellow Perch	Sheldrake Lake		organ	2003	33
Perch 3	Yellow Perch	Sheldrake Lake		muscle	2003	0.31
Perch 4	Yellow Perch	Sheldrake Lake		organ	2003	<1.5
Perch 4	Yellow Perch	Sheldrake Lake		muscle	2003	<0.2
Perch 5	Yellow Perch	Sheldrake Lake		organ	2003	1
Perch 5	Yellow Perch	Sheldrake Lake		muscle	2003	<0.2
SL-3-YP1	Yellow Perch	Sheldrake Lake		muscle	2005	<0.05
SL-3-YP2	Yellow Perch	Sheldrake Lake		muscle	2005	<0.05
SL-4-YP1	Yellow Perch	Sheldrake Lake		muscle	2005	<0.05
SL-4-YP2	Yellow Perch	Sheldrake Lake		muscle	2005	<0.05
SL-YP-COMPL1	Yellow Perch	Sheldrake Lake		organ	2005	<0.5
SL-YP-COMPL2	Yellow Perch	Sheldrake Lake		organ	2005	<1.0
SL-YP-COMPL3	Yellow Perch	Sheldrake Lake		organ	2005	<0.2
SL-YP-COMPL4	Yellow Perch	Sheldrake Lake		organ	2005	<1.0
SL-YP-COMPM	Yellow Perch	Sheldrake Lake		muscle	2005	<0.05
SL-YP-COMPM	Yellow Perch	Sheldrake Lake		muscle	2005	<0.05
SLP-1	Yellow Perch	Sheldrake Lake	Mid lake	muscle	2007	<0.05
SLP-2	Yellow Perch	Sheldrake Lake	Mid lake	muscle	2007	<0.05
SLP-3	Yellow Perch	Sheldrake Lake	Mid lake	muscle	2007	<0.05
SLP-4	Yellow Perch	Sheldrake Lake	Mid lake	muscle	2007	<0.05
SLP-5	Yellow Perch	Sheldrake Lake	Mid lake	muscle	2007	<0.05
SLP-6	Yellow Perch	Sheldrake Lake	Mid lake	muscle	2007	<0.05

## **ATTACHMENT 3**

Laboratory Analytical Data Sheets  
For PCB Analyses 2007

Your P.O. #: NSD016400  
Your Project #: SD09299.06/Z9100  
Site: FIVE ISLAND LAKE SURVEY  
Your C.O.C. #: B 39337

**Attention: Julianne Sullivan**

Jacques Whitford Limited  
3 Spectacle Lake Dr  
Dartmouth, NS  
B3B 1W8

**Report Date: 2007/08/31**

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: A783327**

**Received: 2007/08/08, 16:32**

Sample Matrix: TISSUE  
# Samples Received: 45

Analyses	Quantity	Date	Date	Laboratory Method	Method
		Extracted	Analyzed		Reference
PCBs in tissue by GC/ECD	20	2007/08/21	2007/08/30	ATL SOP 00110 R2	Based on EPA8082
PCBs in tissue by GC/ECD	13	2007/08/22	2007/08/30	ATL SOP 00110 R2	Based on EPA8082
PCBs in tissue by GC/ECD	12	2007/08/22	2007/08/31	ATL SOP 00110 R2	Based on EPA8082

\* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

**Encryption Key**

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

KERI MACKAY, Project Manager  
Email: keri.mackay.reports@maxxamanalytics.com  
Phone# (902) 420-0203

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CAEAL have approved this reporting process and electronic report format.

For Service Group specific validation please refer to the Validation Signature Page

Total cover pages: 1

Maxxam Job #: A783327  
Report Date: 2007/08/31

Jacques Whitford Limited  
Client Project #: SD09299.06/Z9100  
Project name: FIVE ISLAND LAKE SURVEY  
Your P.O. #: NSD016400  
Sampler Initials:

**POLYCHLORINATED BIPHENYLS BY GC-ECD (TISSUE)**

Maxxam ID		T92513	T92514	T92515	T92515		
Sampling Date		2007/06/09	2007/06/09	2007/06/09	2007/06/09		
COC Number		B 39337	B 39337	B 39337	B 39337		
	<b>Units</b>	<b>HLS-1</b>	<b>HLS-2</b>	<b>HLS-3</b>	<b>HLS-3 Lab-Dup</b>	<b>RDL</b>	<b>QC Batch</b>

<b>PCBs</b>							
Total PCB	ug/g	0.11	ND	ND	ND	0.05	1328767
<b>Surrogate Recovery (%)</b>							
Decachlorobiphenyl	%	87 (1)	84	91	81	N/A	1328767

ND = Not detected  
N/A = Not Applicable  
RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch  
( 1 ) Aroclor 1260.

Maxxam ID		T92516	T92517	T92518	T92519		
Sampling Date		2007/06/09	2007/06/25	2007/06/06	2007/06/06		
COC Number		B 39337	B 39337	B 39337	B 39337		
	<b>Units</b>	<b>HLS-4</b>	<b>HLS-5</b>	<b>HLP-1</b>	<b>HLP-2</b>	<b>RDL</b>	<b>QC Batch</b>

<b>PCBs</b>							
Total PCB	ug/g	ND	ND	ND	ND	0.05	1328767
<b>Surrogate Recovery (%)</b>							
Decachlorobiphenyl	%	79	91	96	90	N/A	1328767

ND = Not detected  
N/A = Not Applicable  
RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch

Maxxam ID		T92520	T92521	T92522	T92523		
Sampling Date		2007/06/09	2007/06/09	2007/06/09	2007/06/25		
COC Number		B 39337	B 39337	B 39337	B 39337		
	<b>Units</b>	<b>HLP-3</b>	<b>HLP-4</b>	<b>HLP-5</b>	<b>HLT-1</b>	<b>RDL</b>	<b>QC Batch</b>

<b>PCBs</b>							
Total PCB	ug/g	0.08	ND	ND	ND	0.05	1328767
<b>Surrogate Recovery (%)</b>							
Decachlorobiphenyl	%	113 (1)	105	119	111	N/A	1328767

ND = Not detected  
N/A = Not Applicable  
RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch  
( 1 ) Aroclor 1260.

Maxxam Job #: A783327  
Report Date: 2007/08/31

Jacques Whitford Limited  
Client Project #: SD09299.06/Z9100  
Project name: FIVE ISLAND LAKE SURVEY  
Your P.O. #: NSD016400  
Sampler Initials:

**POLYCHLORINATED BIPHENYLS BY GC-ECD (TISSUE)**

Maxxam ID		T92524	T92525		T92526	T92527		
Sampling Date		2007/06/25	2007/06/25		2007/06/25	2007/06/25		
COC Number		B 39337	B 39337		B 39337	B 39337		
	<b>Units</b>	<b>HLT-2</b>	<b>HLT-3</b>	<b>QC Batch</b>	<b>HLT-4</b>	<b>SL-M</b>	<b>RDL</b>	<b>QC Batch</b>

<b>PCBs</b>								
Total PCB	ug/g	ND	0.08	1328767	ND	ND	0.05	1328772
<b>Surrogate Recovery (%)</b>								
Decachlorobiphenyl	%	105	110 (1)	1328767	107	83	N/A	1328772

ND = Not detected  
N/A = Not Applicable  
RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch  
( 1 ) Aroclor 1260.

Maxxam ID		T92528	T92528	T92529	T92530		
Sampling Date		2007/06/06	2007/06/06	2007/06/06	2007/06/06		
COC Number		B 39337	B 39337	B 39337	B 39337		
	<b>Units</b>	<b>SLS-1</b>	<b>SLS-1 Lab-Dup</b>	<b>SLS-2</b>	<b>SLS-3</b>	<b>RDL</b>	<b>QC Batch</b>

<b>PCBs</b>							
Total PCB	ug/g	ND	ND	ND	ND	0.05	1328772
<b>Surrogate Recovery (%)</b>							
Decachlorobiphenyl	%	102	91	86	81	N/A	1328772

ND = Not detected  
N/A = Not Applicable  
RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch

Maxxam ID		T92531	T92532	T92533	T92534		
Sampling Date		2007/06/06	2007/06/06	2007/06/06	2007/06/06		
COC Number		B 39337	B 39337	B 39337	B 39337		
	<b>Units</b>	<b>SLS-4</b>	<b>SLS-5</b>	<b>SLS-6</b>	<b>SLP-1</b>	<b>RDL</b>	<b>QC Batch</b>

<b>PCBs</b>							
Total PCB	ug/g	0.07	ND	ND	ND	0.05	1328772
<b>Surrogate Recovery (%)</b>							
Decachlorobiphenyl	%	91 (1)	87	95	109	N/A	1328772

ND = Not detected  
N/A = Not Applicable  
RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch  
( 1 ) Aroclor 1260.

Maxxam Job #: A783327  
Report Date: 2007/08/31

Jacques Whitford Limited  
Client Project #: SD09299.06/Z9100  
Project name: FIVE ISLAND LAKE SURVEY  
Your P.O. #: NSD016400  
Sampler Initials:

**POLYCHLORINATED BIPHENYLS BY GC-ECD (TISSUE)**

Maxxam ID		T92535	T92536	T92537		T92538		
Sampling Date		2007/06/06	2007/06/06	2007/06/06		2007/06/06		
COC Number		B 39337	B 39337	B 39337		B 39337		
	<b>Units</b>	<b>SLP-2</b>	<b>SLP-3</b>	<b>SLP-4</b>	<b>QC Batch</b>	<b>SLP-5</b>	<b>RDL</b>	<b>QC Batch</b>

<b>PCBs</b>								
Total PCB	ug/g	ND	ND	ND	1328772	ND	0.05	1327706
<b>Surrogate Recovery (%)</b>								
Decachlorobiphenyl	%	98	103	104	1328772	120	N/A	1327706

ND = Not detected  
N/A = Not Applicable  
RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch

Maxxam ID		T92539	T92540	T92541	T92542		
Sampling Date		2007/06/06	2007/06/25	2007/06/05	2007/06/05		
COC Number		B 39337	B 39337	B 39337	B 39337		
	<b>Units</b>	<b>SLP-6</b>	<b>FI-M</b>	<b>FIT-1</b>	<b>FIT-2</b>	<b>RDL</b>	<b>QC Batch</b>

<b>PCBs</b>								
Total PCB	ug/g	ND	2.6	0.15	1.6	0.05	1327706	
<b>Surrogate Recovery (%)</b>								
Decachlorobiphenyl	%	102	100 (1)	107 (1)	129 (1)	N/A	1327706	

ND = Not detected  
N/A = Not Applicable  
RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch  
( 1 ) Aroclor 1260.

Maxxam ID		T92543	T92544	T92544	T92545		
Sampling Date		2007/06/05	2007/06/05	2007/06/05	2007/06/05		
COC Number		B 39337	B 39337	B 39337	B 39337		
	<b>Units</b>	<b>FIT-3</b>	<b>FIT-4</b>	<b>FIT-4 Lab-Dup</b>	<b>FIT-5</b>	<b>RDL</b>	<b>QC Batch</b>

<b>PCBs</b>								
Total PCB	ug/g	0.82	0.85	1.1	0.81	0.05	1327706	
<b>Surrogate Recovery (%)</b>								
Decachlorobiphenyl	%	99 (1)	79 (1)	106	87 (1)	N/A	1327706	

N/A = Not Applicable  
RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch  
( 1 ) Aroclor 1260.

Maxxam Job #: A783327  
Report Date: 2007/08/31

Jacques Whitford Limited  
Client Project #: SD09299.06/Z9100  
Project name: FIVE ISLAND LAKE SURVEY  
Your P.O. #: NSD016400  
Sampler Initials:

**POLYCHLORINATED BIPHENYLS BY GC-ECD (TISSUE)**

Maxxam ID		T92546	T92547	T92548	T92549		
Sampling Date		2007/06/05	2007/06/05	2007/06/05	2007/06/05		
COC Number		B 39337	B 39337	B 39337	B 39337		
	<b>Units</b>	<b>FIS-1</b>	<b>FIS-2</b>	<b>FIS-3</b>	<b>FIS-4</b>	<b>RDL</b>	<b>QC Batch</b>

<b>PCBs</b>							
Total PCB	ug/g	6.8	0.10	6.6	0.40	0.05	1327706
<b>Surrogate Recovery (%)</b>							
Decachlorobiphenyl	%	103 (1)	74 (1)	87 (1)	89 (1)	N/A	1327706

N/A = Not Applicable  
RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch  
( 1 ) Aroclor 1260.

Maxxam ID		T92550	T92551	T92552	T92553		
Sampling Date		2007/06/05	2007/06/05	2007/06/05	2007/06/05		
COC Number		B 39337	B 39337	B 39337	B 39337		
	<b>Units</b>	<b>FIS-5</b>	<b>FIS-6</b>	<b>FIP-1</b>	<b>FIP-2</b>	<b>RDL</b>	<b>QC Batch</b>

<b>PCBs</b>							
Total PCB	ug/g	0.05	0.12	0.15	0.05	0.05	1327706
<b>Surrogate Recovery (%)</b>							
Decachlorobiphenyl	%	75 (1)	84 (1)	107 (1)	82 (1)	N/A	1327706

N/A = Not Applicable  
RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch  
( 1 ) Aroclor 1260.

Maxxam ID		T92554	T92555	T92556	T92557		
Sampling Date		2007/06/05	2007/06/05	2007/06/05	2007/06/05		
COC Number		B 39337	B 39337	B 39337	B 39337		
	<b>Units</b>	<b>FIP-3</b>	<b>FIP-4</b>	<b>FIP-5</b>	<b>FIP-6</b>	<b>RDL</b>	<b>QC Batch</b>

<b>PCBs</b>							
Total PCB	ug/g	0.37	0.16	1.2	1.6	0.05	1327706
<b>Surrogate Recovery (%)</b>							
Decachlorobiphenyl	%	72 (1)	111 (1)	80 (1)	103 (1)	N/A	1327706

N/A = Not Applicable  
RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch  
( 1 ) Aroclor 1260.

Maxxam Job #: A783327  
Report Date: 2007/08/31

Jacques Whitford Limited  
Client Project #: SD09299.06/Z9100  
Project name: FIVE ISLAND LAKE SURVEY  
Your P.O. #: NSD016400  
Sampler Initials:

**GENERAL COMMENTS**

**Results relate only to the items tested.**



Jacques Whitford Limited  
Attention: Julianne Sullivan  
Client Project #: SD09299.06/Z9100  
P.O. #: NSD016400  
Project name: FIVE ISLAND LAKE SURVEY

Quality Assurance Report  
Maxxam Job Number: DA783327

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1327706 RST	MATRIX SPIKE [T92544-01]	Decachlorobiphenyl	2007/08/30		75	%	30 - 130
		Total PCB	2007/08/30		86	%	30 - 130
	Spiked Blank	Decachlorobiphenyl	2007/08/30		97	%	30 - 130
		Total PCB	2007/08/30		85	%	30 - 130
	Method Blank	Decachlorobiphenyl	2007/08/30		97	%	30 - 130
		Total PCB	2007/08/30		ND, RDL=0.05		ug/g
	RPD [T92544-01]	Total PCB	2007/08/30		22.1		%
1328767 RST	MATRIX SPIKE [T92515-01]	Decachlorobiphenyl	2007/08/30		86	%	30 - 130
		Total PCB	2007/08/30		97	%	30 - 130
	Spiked Blank	Decachlorobiphenyl	2007/08/30		84	%	30 - 130
		Total PCB	2007/08/30		99	%	30 - 130
	Method Blank	Decachlorobiphenyl	2007/08/30		127	%	30 - 130
		Total PCB	2007/08/30		ND, RDL=0.05		ug/g
	RPD [T92515-01]	Total PCB	2007/08/30		NC		%
1328772 RST	MATRIX SPIKE [T92528-01]	Decachlorobiphenyl	2007/08/31		84	%	30 - 130
		Total PCB	2007/08/31		78	%	30 - 130
	Spiked Blank	Decachlorobiphenyl	2007/08/31		102	%	30 - 130
		Total PCB	2007/08/31		83	%	30 - 130
	Method Blank	Decachlorobiphenyl	2007/08/31		102	%	30 - 130
		Total PCB	2007/08/31		ND, RDL=0.05		ug/g
	RPD [T92528-01]	Total PCB	2007/08/31		NC		%

ND = Not detected  
NC = Non-calculable  
RPD = Relative Percent Difference  
SPIKE = Fortified sample

**Validation Signature Page**

**Maxxam Job #: A783327**

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The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CAEAL have approved this reporting process and electronic report format.