

LAKE: MCQUARRIE

INDIVIDUAL FISH DATA

Date Captured September 20, 21, 1983

Method of Capture Sinking monofilament nets

M-Male
F-Female
?-Not
ObviousIMM-Immature
MG-Maturing
MT-Mature
GV-Gravid
SP-Spent
?-Not ObviousEG-Egg
FR-Fin Ray
HD-Head
ML-Milt
OT-OtolithSC-Scale
ST-Stomach
TG-Fish Tag
WF-Whole Fish

SPECIES	FORK LENGTH (cm)	WEIGHT (gm)	SEX	GONADAL MATURITY	SAMPLE TYPE	AGE (YRS)	STOMACH CONTENTS					COMMENTS
							BOTTOM ORGANISMS	PLANKTON	INSECTS	FISH	OTHER	
Rainbow trout	11	12	?	IMM	SC							
	12	18	?	IMM	SC							
	12.5	20	?	IMM	SC							
	17.5	50	F	IMM	SC							
	19	65	F	IMM	SC							
	19	65	M	IMM	SC							
	21	80	F	IMM	SC							
	21	90	F	IMM	SC							
	21	90	F	IMM	SC							
	21	90	F	MG	SC							
	21.2	90	F	MG	SC							
	22	100	M	IMM	SC							
	22	100	F	MG	SC							
	22	100	M	IMM	SC							
	22	100	F	MG	-							
	22	110	F	MG	SC							
	22.5	110	M	MG	SC							
	→22.5	110	M	MG	SC							* -0105;0155
	22.5	115	F	MG	SC							* -0103;0153
	22.5	120	F	MG	SC							
	23	105	F	MG	SC							
	23.5	115	F	MG	SC							
	23	120	M	MG	SC							tapeworm cysts

* These are sample codes for liver and flesh trace metal analyses

LAKE: MCQUARRIE

INDIVIDUAL FISH DATA

Date Captured September 20, 21, 1984

Method of Capture Sinking monofilament nets

M-Male	IMM-Immature	EG-Egg	SC-Scale
F-Female	MG-Maturing	FR-Fin Ray	ST-Stomach
?-Not Obvious	MT-Mature	HD-Head	TG-Fish Tag
	GV-Gravid	ML-Milt	WF-Whole Fish
	SP-Spent	OT-Otolith	
	?-Not Obvious		

SPECIES	FORK LENGTH (cm)	WEIGHT (gm)	SEX	GONADAL MATURITY	SAMPLE TYPE	AGE (YRS)	STOMACH CONTENTS					COMMENTS
							BOTTOM ORGANISMS	PLANKTON	INSECTS	FISH	OTHER	
Rainbow trout	23	120	F	MG	SC		caddisfly larvae	copepods				* - 0104;0154
	23	120	-	SC								* - 0101;0151
	23	120	?	IMM	SC		caddisfly larvae	copepods				* - 0102;0152
	23	130	M	MG	SC							
	23	130	F	MG	SC		caddisfly larvae					tapeworm cysts
	23	130	F	MG	SC							tapeworm cysts
	23.5	120	?	IMM	SC		caddisfly larvae					tapeworm cysts
	23.5	140	F	MG	SC							
	23.8	130	M	MG	SC		caddisfly larvae					
	25	140	?	?	SC							
	25	150	M	MG	SC		caddisfly larvae					
	25.5	150	M	MG	SC							
	25.5	160	M	MG	SC							
	26	160	?	?	SC							

* These are sample codes for liver and flesh trace metal analyses.

LAKE: MCQUARRIE

HISTORY OF PREVIOUS SURVEYS

No known previous surveys

Survey Date

new watershed code 16 seg 3
460-7449-000.000

A RECONNAISSANCE SURVEY OF
MCQUARRIE LAKE

WATERSHED: BULKLEY RIVER
DATE OF SURVEY: SEPTEMBER 20, 21, 1983
FIELD CREW LEADER: TOM N. WEBBER
FIELD ASSISTANT: SIG HATLEVIK

REPORT PREPARED BY: TOM N. WEBBER

REPORT EDITED BY: D.J. GRANT

(Senior Inventory Technician)

ACCEPTED FOR RELEASE BY:

J. A. Balkwill
(Head, Inventory Operations Unit)

WATER MANAGEMENT BRANCH
MINISTRY OF ENVIRONMENT

LAKE: MCQUARRIE

A.S.A.P. REFERENCE NO. -

DATA ON FILE FOR THIS SURVEY

Location	/	Dissolved Oxygen Profile	/
Physical Data	/	Temperature Profile	/
Bench Mark	/	Netting Record	/
Terrain Features	/	Lake Catch Summary	/
Access	/	Fisheries Comments	/
Resorts & Campsites	/	Individual Fish Data	/
Other Developments	/	Fish Preserved	-
Obstructions and Pollutants	/	Stomach Analysis	/
Special Restrictions	/	Scale Reading	-
Aquatic Plants	/	History of Previous Surveys	/
Wildlife Observations	/	Location of Inventory Sites	/
Miscellaneous Comments	/	Photograph Directory	/
Lake Drainage	/	Laboratory Reports	/
Inlets/Outlets	/	Bathymetric Reduction	/
Water Chemistry	/	Contour Map	/

LOCATION 20 km due north of Houston, B.C. Elevation 1 061 m ±
Latitude/ Longitude 54°38':126°46' U.T.M. 9.6505.60500
Management Unit 6-8 N.T.S. Map No. 93 L/10
Drainage McQuarrie Creek → Bulkley River → Skeena River

PHYSICAL DATA

Water Surface Area	2 160 000 sq. m	Lake Drainage Area	26.2 sq. km
Area above 6 m contour	1 462 000 sq. m	Volume	10 165 000 cu. m
Shoreline Perimeter	12 410 m	Flushing Rate	-
Maximum Depth	11 m	Perimeter of 1 Islands	828 m
Filtrable Residue (T.D.S.)	62 mg/L	Mean Depth	4.7 m
		Secchi Disc	5.0 m

Sounding Device: FURUNO FG11A - MARK 3 Elevation Source: Contour interpolation

BENCH MARK (Iron spike in center of red circle) Location: 2 m above the present water level in a 25 cm diameter lodgepole pine tree, at the campsite near the north end of the lake, west side.
High water mark 0.2 m above water level at time of survey. (water line on boulders)

LAKE: MCQUARRIE

TERRAIN FEATURES

Immediate Shoreline:

Most of the shoreline dropoff is very shallow giving way to many shoal areas of large gravel and cobble. Much of the shoreline is bordered by scattered shrub and bush. The lower lake water level has exposed a bouldery shoreline with a low 0.3 m bank. Shoreline access is good at this time of year although there is considerable above and below water level windfall debris. Potential near shore-boating hazards are numerous.

Surrounding Country:

The surrounding country is mostly hilly and completely forested in climax growth spruce, fir and lodgepole pine. Deciduous growth is scattered and very limited. Forest growth extends to very near the shoreline except in the low wetland area at the north end of the lake. Some exposed bedrock bluffs are visible on the hill, east side of the lake.

LAKE: MCQUARRIE

ACCESS

Directions: Float plane via Central Mountain Air Services from Tyee Lake.
Flying time is about 10 minutes in a DeHavilland Beaver.

Road Type and Conditions: N/A

Restrictions: N/A

RESORTS & CAMPSITES

None developed. Potential campsites are minimal due to the high percentage of surrounding wetland and limited beach development. The forest extends to very near the lake edge. A crude campsite was noted on the small island.

OTHER DEVELOPMENTS

None

OBSTRUCTIONS AND POLLUTIONS

None except for a persistant debris jam on the outlet probably causing slight fluctuations in the water level of the lake.

SPECIAL RESTRICTIONS

None

LAKE: MCQUARRIE

AQUATIC PLANTS

Sparse abundance and somewhat unevenly distributed. Aquatic plants are most abundant in the shallow water areas at the north end of the lake. None were collected.

WILDLIFE OBSERVATIONS

None except for a few resident loons, kingfishers and gray jays. The wetland marsh at the north end of the lake offers some excellent moose pasture.

MISCELLANEOUS COMMENTS

Bathymap source: Air photo enlargement BC 79075:100 (July, 1979)

Invertebrates: Not very abundant. Caddisfly larvae, bivalves and gastropods are visible in most shallow water areas.

General: A bottom sample was collected using an Ekman dredge near the south end of the lake at a depth of about 10 meters.

Over 50 percent of the lake is potentially littoral and very productive although the nutrient level in McQuarrie Lake is quite low.

The lake water level does not appear to fluctuate very much.

The freeze over period is usually from mid November to early April.

LAKE: MCQUARRIE

LAKE DRAINAGE

General:

McQuarrie Lake is an expansion of McQuarrie Creek and is the largest of the lakes located near the headwaters of the twenty-five kilometer long system. McQuarrie Creek drains through McQuarrie Lake into a small unnamed lake to the south before turning east then south east eventually emptying into the north side of the Bulkley River near Perow. There are three other major tributaries to the McQuarrie Creek system. Two are parallel drainages to the north east of McQuarrie Lake one of which drains through Farewell lake. The third tributary drains from an unnamed lake to the south.

Major Systems:

McQuarrie Creek - outlet - (Watershed code #46-6100)

The outlet was point sampled once and walked as far downstream as the first small unnamed lake. Many rainbow trout fry and fingerlings were observed rearing throughout this short reach. Suitable spawning habitat is minimal as bed materials are probably the limiting factor. The stabler stream environment and ideal gradient offers some excellent opportunity for habitat improvement in this area although it may not be immediately necessary.

There are no major inlets to McQuarrie Lake.

Minor Systems:

There are three minor systems mapped on the 1:50 000 topo map that drain into McQuarrie Lake. The most significant input is from a diffuse drainage through the wetland marsh area at the extreme north end of the lake. There is a second small creek which drains from the steep hill to the west from a pair of small lakes, North Lake and South Lake. The third creek drains from two small lakes near the middle of the east side of McQuarrie Lake. No inlet surveys were done and it is not known whether the second and third inlet streams were flowing at the time of the survey.

LAKE: MCQUARRIE

LAKE DRAINAGE CONT'D

Outlet

POINT SAMPLE

BANK		R	C	BED MATERIAL			
S	R Form	R	S	Ice Scouring	Y ? N	C	Texture (%)
C	Genetic Mat.	C		Imbric	Nil L M H	Org.	F
Texture %				Compact	Nil L M H	Clay	
F	Org.	F		Log	Nil L M H	Silt	10
Clay				D ₉₀ (cm)	60	Sand	10
004							
Silt							
062							
Sand							
2							
S Gr		G					
16							
L Gr							
64							
Cob		L					
256							
Boul							
Bedr							
Distr.	Sp	VEG.	Sp	Distr.	Wet X-sec area		
8	1	Conif	1	7	Velocity (m/sec)	0.3 E	
0		Decid.		0	Flow (m ³ /sec)		
4	2	Under	2	3	Bank Height (m)	0.2 m	
B		Ground		8	Fld. Signs (HI./Type)	0.1/D	
CHANNEL COVER							
1	Distr.	% Areg	Level	% Areg	Distr.	Stage	Dry L M H Fld
0						Flow Char	P S R B T
4	5	Crown	0	0		Valley Chan	0-2 2-5 5-10 N/A
BIOTA							
Aquatic Veg	Sp	Abun	2	Side Chan	Nil L M H		
Invertebrates	3	m		DEBRIS	Channel Nil L M H		
Algae		H		Stable %	70		
				Floodplan	Nil L M H		

System Name McQUARRIE C. Point No. 1 of
 No. 466100
 Site Location MIDWAY between McQUARRIE L.
 and unnamed lake downstream Reach No. 0
 Date 83 09 20 Time 1400 Access Ft
 yr mo day
 NTS Map 93L10 Agency WMB Crew TW SH
 Field Photo Init. TW Photo Nos. 4, 5
 Weather OVERCAST Fish Sample No. —
 Air Temp. °C 12 Water Sample No. —
 Water Sample No. —

C	WATER	Water temp	Turbidity	TDS	D.O.	pH
3	QUAL.	11 °c	50+ m cm			

L STREAM CROSS-SECTION R
 (looking downstream)

Comments

- C1 Channel cover increases downstream

C2 Side channels produced by debris jams are most evident downstream.

C3 Many juvenile trout are rearing in this area.

Sp1 Lodgepole pine, fir and spruce.

Sp2 willow, young alder

Sp3 caddisfly, stonefly and various dipteran larvae, some bivalves and gastropods.

Cx Good to excellent rearing habitat due to habitat diversity ie. undercut banks, debris jams, scour pools, alternate pool and riffle areas and instream boulders. There are many invertebrates here.

Cx Spawning habitat is limited but improves somewhat just above the next unnamed lake. Suitable bed materials are generally lacking. Excellent opportunity for habitat improvement as the channel is very stable and gradient is ideal.

Cx The point is typical of the reach immediately below McQuarrie Lake.

LAKE: MCQUARRIE

WATER CHEMISTRY

Limnology Station No. 1

Date September 21, 1983

Time 1100

Air Temperature

11 °C

Wind Velocity 0 km/hr Wind Direction - Field pH Sfce -
Cloud Cover 1 /10 0.C. Surface Condition calm 5.0 m -
Secchi Disc 5.0 m Water Colour pale green/brown H₂S 5.0 m nil mg/L

Method(s) Used Water Temperature YSI model 57
for field tests: Dissolved Oxygen YSI model 57
Air Temperature Hand-held, alcohol type thermometer
Field pH not sampled H₂S Hach kit

Depth of Bottom 6.0 m

Depth of Water Samples 0 m/5.0 m

DEPTH	O ₂ (mg/l)	TEMP (°C)
Surface	9.4	10.1
0.5		
1.0	9.4	9.9
1.5		
2.0	9.4	9.6
2.5		
3.0	9.5	9.6
3.5		
4.0	9.5	9.6
4.5		
5.0	9.6	9.4
5.5		
6.0	Bottom	
6.5		
7.0		
7.5		

DEPTH (m)	O ₂ (mg/l)	TEMP (°C)
8.0		
8.5		
9.0		
9.5		
10.0		
11.0		
12.0		
13.0		
14.0		
15.0		
16.0		
17.0		
18.0		
19.0		
20.0		
21.0		

DEPTH	O ₂ (mg/l)	TEMP (°C)
22.0		
23.0		
24.0		
25.0		
26.0		
27.0		
28.0		
29.0		
30.0		
31.0		
32.0		
33.0		
34.0		
35.0		

LAKE: MCQUARRIE

WATER CHEMISTRY (CONTINUED)

Comments:

The limno station is located near the geographic center of the lake. The deepest area is closer to the south end where a bottom sample was collected using an Ekman dredge. The mud sample was analyzed for various trace metal and other elements. The results of the analyses ae included in the appendix section of this report.

LAKE: MCQUARRIE

WATER CHEMISTRY CONT'D

Limnology Station No: 1

Equis No: 1130676

Residue Filtrable 105°C (T.D.S.)

Surface 62 mg/L
5 m - mg/L

Specific Conductance

Surface 92 umhos/cm
5 m - umhos/cm

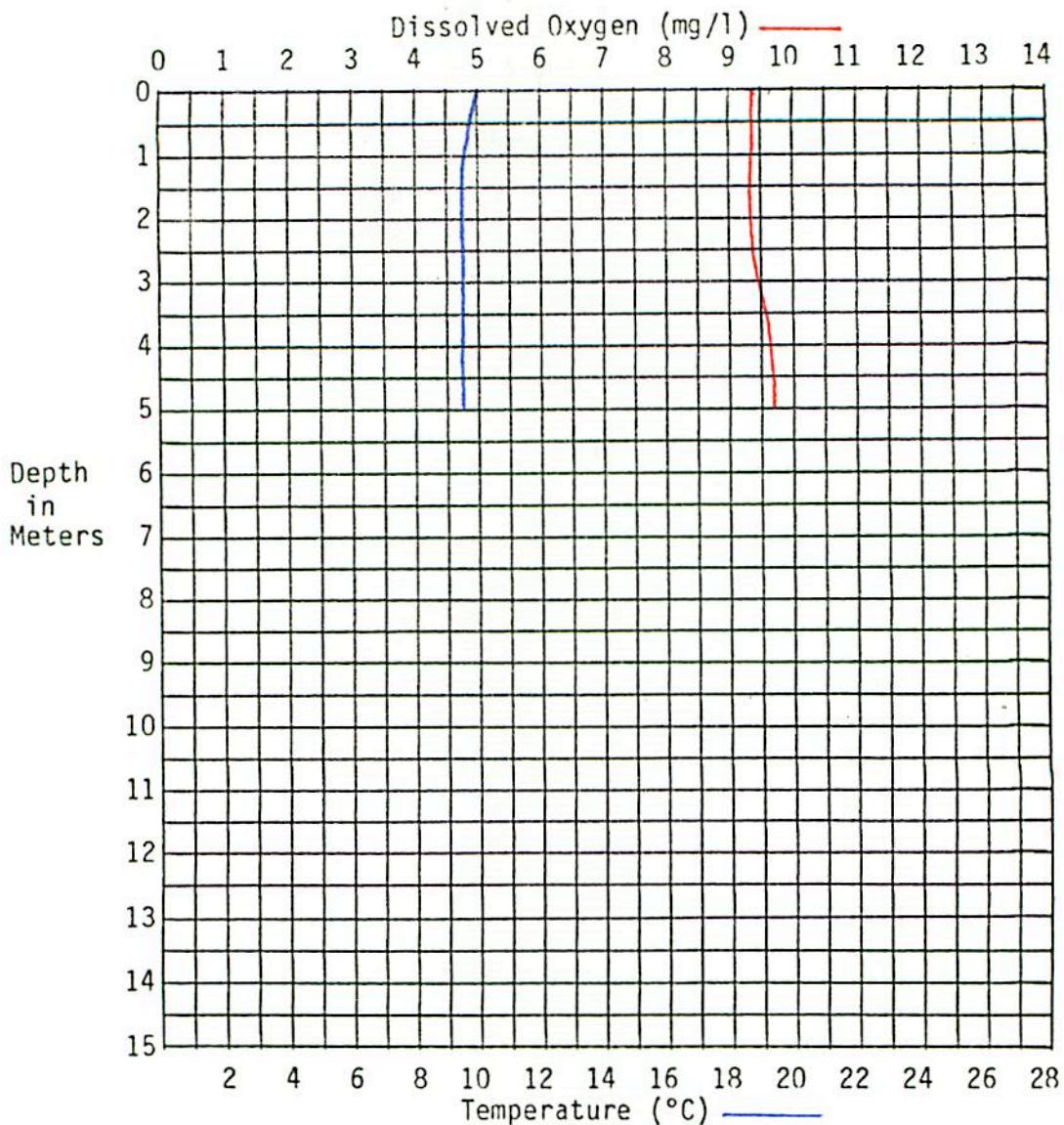
Lab pH

Surface 7.9
5.0 m -

Method /Agency Used: Environment Lab U.B.C.

Comments: No near bottom "A" bottle collected for water sample.

DISSOLVED OXYGEN AND TEMPERATURE PROFILE



LAKE: MCQUARRIE

NETTING RECORD

Mesh sizes are hung in an experimental
order: 25, 76, 51, 89, 38, 64 mm.

NETTING SITE #1 Type Sinking Date Set September 20, 1983 Time 1330
 Monofilament Date Lifted September 20, 1983 Time 1800
Net Dimensions: Length 91.4 m Depth 2.4 m
Shallow End Mesh Size 64 mm, Depth 2.5 m, Substrate cobble
Deep End Mesh Size 25.4 mm, Depth 5 m, Substrate cobble & fines

Comments: Set behind the small island in the lee of the wind.

NETTING SITE #2 Type Sinking Date Set September 21, 1983 Time 1200
 Monofilament Date Lifted September 21, 1983 Time 1600
Net Dimensions: Length 91.4 m Depth 2.4 m
Shallow End Mesh Size 64 mm, Depth 5.0 m, Substrate cobble & fines
Deep End Mesh Size 25 mm, Depth 5.0 m, Substrate cobble & fines

Comments:

LAKE: MCQUARRIE

LAKE CATCH SUMMARY

SPECIES	NETTING SITE NO.				ANGLED	OTHER	TOTAL	NUMBER SAMPLED	NUMBER PRESERVED	SIZE RANGE (cm)
	1	2	3	4						
Rainbow Trout	15	23			0	0	38	36	0	
Longnose Sucker	19	5			0	0	24	0	0	17 1/2 - 18 1/2

Minnow Traps:

Bait Bread

#	HOURS	DEPTH(m)	SUBSTRATE	SPECIES
1	24	0.5	cobble	none
2	24	0.5	cobble	one juvenile sucker

FISHERIES COMMENTS

Most of the trout were heavily parasitized by tapeworm cysts in the gut mesentery.

Many front rise to the surface in the evening

Trout are feeding primarily on caddisfly larvae, surface insects and on occasion, copepods.

LAKE: MCQUARRIE

FISHERIES COMMENTS (CONTINUED)

Some specimens could not be sexed as the gonads were unidentifiable. These fish appeared healthy, red fleshed and their gut contained few parasites. It was suggested that these trout may be steelhead smolts (S. Hatlevik, Smithers, B.C.), rearing in McQuarrie Lake.

The lower reaches of McQuarrie Creek are known to contain steelhead rearing and spawning areas. Five trout were sampled each for liver and muscle trace metal analyses. These fish have been sample-coded on the "Fish Data" Summary sheets.



LOCATION OF INVENTORY SITES

Figure 1

Lake: McQuarrie

Reference No.: Air Photo BC 79075:100

Reference Date: July, 1979

Scale: 1:19555



Plate number, area, and direction



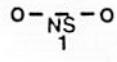
Point sample, number, and location



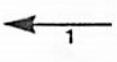
Bench mark



Limno station location and number



Netting site location and number



Stream flow direction and number

McQuarrie Lake



Plate 1: Aerial view from the south (outlet area).



Plate 2: Panorama view to the north from near the lake center.

McQuarrie Lake



Plate 3: Panorama view to the south end of the lake from the campsite.

McQuarrie Lake



Plate 4: Aerial view of the outlet area, south end of the lake.

McQuarrie Lake



Plate 5: Start of the outlet to McQuarrie Lake.



Plate 6: Downstream view over the point sample site on the outlet.

McQuarrie Lake



Plate 7: Downstream view over the outlet near a small unnamed lake.



Plate 8: Campsite area west side of the lake, north end.

LAKE: MCQUARRIE

PHOTOGRAPH DIRECTORY

<u>Negative #</u>	<u>Plate #</u>	<u>Description</u>
1		Aerial view from the north.
2		Aerial view towards the outlet.
3	7	Overlooking a small lake downstream of McQuarrie.
4	6	Point sample area on the outlet.
5		Point sample area on the outlet
6		Debris jam on the outlet.
7	5	Debris jam at the outlet.
8		Shallow areas at the north end.
9,10	2	Panorama from lake middle to the north.
11	8	Campsite area, west side of the lake.
12,13	3	Panorama toward the outlet from campsite
14		Loading the float plane.
15		Loading the float plane.
16	4	Aerial view of the outlet.
17	1	Aerial view from the south.
18		Aerial view of outlet of the small lake.
20		Road crossing of McQuarrie Creek.

OCTOBER 31, 1983

ENVIRONMENTAL LABORATORY
MINISTRY OF THE ENVIRONMENT

PAGE 1

WATER QUALITY REPORT FOR SAMPLE 310949W

TO: RESOURCE QUALITY SEC
 765 BROUGHTON ST.
 VICTORIA, B.C. V8V 1X5
 ATTENTION OF: L SWAIN

FOR SITE: 1130676 MCQUARRIE LK DEEP STN

SAMPLING DATE(S): SEP 21/83 0000 HRS

SAMPLE TYPE: FRESH WATER

SAMPLING DEPTH: 0

SAMPLED BY: RESOURCE QUALITY SECTION

CHARGE TO: WATER PGM (RSRC QUAL SCN)

DATE PROCESSED TO COMPUTER: SEP 30/83

0040101	PH	K REL UNIT	0050101	RESIDUE:TL 105C	64. MG/L
0071701	RES: FILT. 105C	62. MG/L	0110101	SPECIFIC CONDUC	92. UMHO/CM
1061701	FLUORIDE	L 0,1 MG/L	1070003	HARDNESS,T:CACO3	41. MG/L
1083704	NITROGN:AMMONIA	L 0,005*	1093703	NITROGN:N02 N03	L 0,02* MG/L
1120003	NITROGN:ORGANIC	0,22* MG/L	1133605	NITROGN:KJELDAH	0,22 MG/L
1140001	NITROGEN:TOTAL	0,22* MG/L	1183703	PHOSPHORUS:ORT	L 0,003 MG/L
1193703	PHOSPHORUS :TOT DISSOLVED	0,009* MG/L	1193603	PHOSPHORUS :TOT	0,009 MG/L
1580101	TITRATION CURVE	K	2530310	CADMIUM TOTAL	L 0,0005 MG/L
2560310	COPPER TOTAL	0,002 MG/L	2580310	LEAD TOTAL	0,001 MG/L
2630310	NICKEL TOTAL	L 0,01 MG/L			

FOLLOWING ARE PACKAGE TESTS:

2510214	ARSENIC TOTAL	L 0,25 MG/L	2530214	CADMIUM TOTAL	L 0,01 MG/L
2540214	CALCIUM TOTAL	13,8 MG/L	2550214	CHROMIUM TOTAL	L 0,01 MG/L

SAMPLE NO. 310949W CONTINUED ON NEXT PAGE.

OCTOBER 31, 1983

ENVIRONMENTAL LABORATORY
MINISTRY OF THE ENVIRONMENT

PAGE 2

WATER QUALITY REPORT FOR SAMPLE 310949W

2560214	COPPER TOTAL	L 0.01 MG/L	2570214	IRON TOTAL	0.03 MG/L
2580214	LEAD TOTAL	L 0.1 MG/L	2590214	MAGNESIUM TOTAL	1.58 MG/L
2600214	MANGANESE TOTAL	0.01 MG/L	2620214	MOLYBDENUM TOTAL	0.01 MG/L
2630214	NICKEL TOTAL	L 0.05 MG/L	2660214	ZINC TOTAL	L 0.01 MG/L
2670214	ALUMINUM TOTAL	L 0.02 MG/L	2680214	COBALT TOTAL	L 0.1 MG/L
2720214	VANADIUM TOTAL	L 0.01 MG/L			

THE APPROXIMATE COST OF THE ABOVE TESTS IS \$ 209.00

REMARKS:

pH = 7.9 Red units
 Sample too long in transit

TOTAL ALKALINITY mg/l CaCO₃ = 42.0

R. S. Sylwester
FOR ENVIRONMENTAL LABORATORY

OCTOBER 17, 1983

ENVIRONMENTAL LABORATORY
MINISTRY OF THE ENVIRONMENT

PAGE 1

WATER QUALITY REPORT FOR SAMPLE 310950W

TO: RESOURCE QUALITY SEC
765 BROUGHTON ST.
VICTORIA, B.C. V8V 1X5
ATTENTION OF: L SWAIN

FOR SITE: 1130676 MCQUARRIE LK DEEP STN

SAMPLING DATE(S): SEP 21/83 0000 HRS

SAMPLE TYPE: FRESH WATER

SAMPLING DEPTH: 5

SAMPLED BY: RESOURCE QUALITY SECTION

CHARGE TO: WATER PGM (RSRC QUAL SCN)

DATE PROCESSED TO COMPUTER: SEP 30/83

1083704	NITROGN:AMMONIA	L 0.005*	1093703	NITROGN:N02 N03	0.02
		MG/L			MG/L
1120003	NITROGN:ORGANIC	0.20	1133605	NITROGN:KJELDAH	0.20
		MG/L			MG/L
1140001	NITROGEN:TOTAL	0.22	1183703	PHOSPHORUS:TOT	L 0.003
		MG/L			MG/L
1193703	PHOSPHORUS :TOT DISSOLVED	0.013*	1193603	PHOSPHORUS :TOT	0.013
		MG/L			MG/L

THE APPROXIMATE COST OF THE ABOVE TESTS IS \$ 66.00

THERE IS NO CHARGE FOR THE FOLLOWING TESTS

0040101 PH N 0110101 SPECIFIC CONDUC N
REL UNIT UMHO/CM

REMARKS:

FOR ENVIRONMENTAL LABORATORY

FEBRUARY 3, 1984

ENVIRONMENTAL LABORATORY
MINISTRY OF THE ENVIRONMENT

PAGE 1

WATER QUALITY REPORT FOR SAMPLE 311748N

TO: RESOURCE QUALITY SEC
765 BROUGHTON ST.
VICTORIA, B.C. V8V 7X5
ATTENTION OF C MCKEAN

FOR SITE: MCQUARRIE LK

SAMPLING DATE(S): SEP 21/83 0000 HRS
SAMPLE TYPE: BOTTOM SEDIMENT
SAMPLED BY: RESOURCE QUALITY SECTION
CHARGE: TO: WATER PGM (RSRC QUAL SCN)
DATE: PROCESSED TO COMPUTER: OCT 19/83

0322402	RESIDUE/TOT. VO	28.2	1032802	CARBON:ORGANIC	58'
		%			MG/G DRY
1132402	NITROGEN:KJELDAH	9.9	1262402	CARBON:INORG.	62'
		MG/G DRY			MG/G DRY
1472401	CARBON:TOTAL	120.	2612408	MERCURY	0.20
		MG/G DRY			UG/G 20C
2892411	SILICON	54.			
		UG/G DRY			

FOLLOWING ARE PACKAGE TESTS:

1192411	PHOSPHORUS :TOT	994.	2512411	ARSENIC	L 25'
		UG/G DRY			UG/G DRY
2522411	BORON	L 1.	2532411	CADMIUM	L 1'
		UG/G DRY			UG/G DRY
2542412	CALCIUM	8.43	2552411	CHROMIUM	31'
		MG/G DRY			UG/G DRY
2562411	COPPER	60.	2572412	IRON	30.3
		UG/G DRY			MG/G DRY
2582411	LEAD	30.	2592412	MAGNESIUM	4.55
		UG/G DRY			MG/G DRY
2602411	MANGANESE	723.	2622411	MOLYBDENUM	9'
		UG/G DRY			UG/G DRY
2632411	NICKEL	28.	2662411	ZINC	257'
		UG/G DRY			UG/G DRY
2672412	ALUMINUM	21.8	2682411	COBALT	L 10'
		MG/G DRY			UG/G DRY

SAMPLE NO. 311748N CONTINUED ON NEXT PAGE

FEBRUARY 3, 1984

ENVIRONMENTAL LABORATORY
MINISTRY OF THE ENVIRONMENT

PAGE 2

WATER QUALITY REPORT FOR SAMPLE 311748W

2702411 BARIUM

234.
UG/G DRY

2722411 VANADIUM

36.
UG/G DRY

2742411 SELENIUM

L 10.
UG/G DRY

2762411 TITANIUM

11.
UG/G DRY

2822411 TIN

8.
UG/G DRY

2832411 BERYLLIUM

L 1.
UG/G DRY

2842411 THALLIUM

L 20.
UG/G DRY

2872411 STRONTIUM

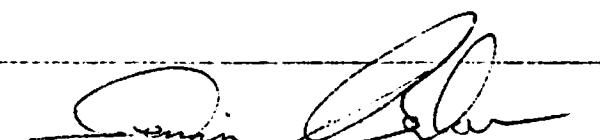
46.
UG/G DRY

2882411 TELLURIUM

39.
UG/G DRY

THE APPROXIMATE COST OF THE ABOVE TESTS IS \$ 228.00

REMARKS:


Dennis J. Baker
ENVIRONMENTAL LABORATORY
FOR ENVIRONMENTAL LABORATORY

FEBRUARY 14, 1984

ENVIRONMENTAL LABORATORY
MINISTRY OF THE ENVIRONMENT

PAGE 1

WATER QUALITY REPORT FOR SAMPLE 313717W

TO: RESOURCE QUALITY SEC
765 BROUGHTON ST.
VICTORIA, B.C. V8V 1X5
ATTENTION OF: C MCKEAN

FOR SITE: MCQUARRIE LK

SAMPLING DATE(S): OCT 1/83 0000 HRS

SAMPLE TYPE: BOTTOM SEDIMENT

SAMPLED BY: RESOURCE QUALITY SECTION

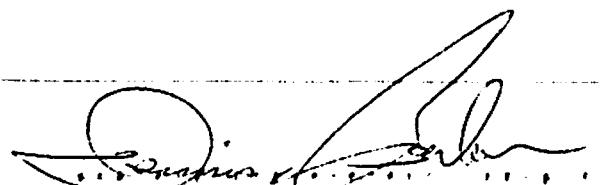
CHARGE TO: WATER PGM (RSRC QUAL SCN)

DATE PROCESSED TO COMPUTER: DEC 09/83

2612408 MERCURY 0.41
UG/G#200

THE APPROXIMATE COST OF THE ABOVE TESTS IS \$ 47.00

REMARKS:


FOR ENVIRONMENTAL LABORATORY

FEBRUARY 23, 1984

ENVIRONMENTAL LABORATORY
MINISTRY OF THE ENVIRONMENT

PAGE 1

WATER QUALITY REPORT FOR SAMPLE 311012W

TO: RESOURCE QUALITY SEC
 765 BROUGHTON ST.
 VICTORIA, B.C. V8V 1X5
 ATTENTION OF: C MCKEAN

FOR SITE: 1130676 MEQUARRIE LAKE DEEP STN

SAMPLING DATE(S): SEP 21/83 0000 HRS

SAMPLE TYPE: FISH TISSUE

SUB-SAMPLE: 01

COMPONENT: 01

SAMPLED BY: RESOURCE QUALITY SECTION

CHARGE TO: WATER PGM (RSRC QUAL SCN)

DATE PROCESSED TO COMPUTER: SEP 28/83

0250001 MOISTURE	79.2	2612601 MERCURY	0.08
	2		UG/G WET

FOLLOWING ARE PACKAGE TESTS:

1192612	PHOSPHORUS :TOT	9.75	2512611	ARSENIC	L 24.
		MG/G DRY			UG/G DRY
2522611	BORON	L 1.	2532611	CADMIUM	L 1.
		UG/G DRY			UG/G DRY
2542611	CALCIUM	586.	2552611	CHROMIUM	L 1.
		UG/G DRY			UG/G DRY
2562611	COPPER	L 1.	2572611	IRON	L 1.
		UG/G DRY			UG/G DRY
2582611	LEAD	L 10.	2592612	MAGNESIUM	1.21
		UG/G DRY			MG/G DRY
2602611	MANGANESE	L 1.	2622611	MOLYBDENUM	L 1.
		UG/G DRY			UG/G DRY
2632611	NICKEL	L 5.	2662611	ZINC	11.
		UG/G DRY			UG/G DRY
2672611	ALUMINUM	L 2.	2682611	COBALT	L 10.
		UG/G DRY			UG/G DRY
2702611	BARIUM	L 1.	2722611	VANADIUM	L 1.
		UG/G DRY			UG/G DRY
2742611	SELENIUM	L 10.	2762611	TITANIUM	L 1.
		UG/G DRY			UG/G DRY
2822611	TIN	L 5.	2832611	BERYLLIUM	L 1.
		UG/G DRY			UG/G DRY

SAMPLE NO. 311012W CONTINUED ON NEXT PAGE.

FEBRUARY 23, 1984

ENVIRONMENTAL LABORATORY
MINISTRY OF THE ENVIRONMENT

PAGE 2

WATER QUALITY REPORT FOR SAMPLE 311012W

2842611 THALLIUM

L 20.
UG/G DRY

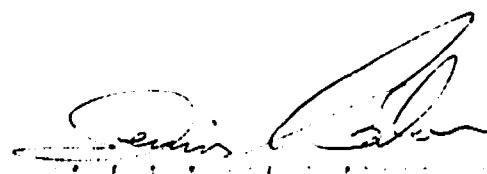
L 1.
UG/G DRY

2882611 TELLURIUM

L 20.
UG/G DRY

THE APPROXIMATE COST OF THE ABOVE TESTS IS \$ 123.00

REMARKS:



FOR ENVIRONMENTAL LABORATORY

SAMPLER'S COMMENTS: RAINBOW MUSCLE #1

FEBRUARY 23, 1984

ENVIRONMENTAL LABORATORY
MINISTRY OF THE ENVIRONMENT

PAGE 1

WATER QUALITY REPORT FOR SAMPLE 311013W

TO: RESOURCE QUALITY SEC
 765 BROUGHTON ST.
 VICTORIA, B.C. V8V 1X5
 ATTENTION OF: C MCKEAN

FOR SITE: 1130676 MCQUARRIE LAKE DEEP STN

SAMPLING DATE(S): SEP 21/83 0000 HRS

SAMPLE TYPE: FISH TISSUE

SUB-SAMPLE: 01

MUSSLE
TISSUE

COMPONENT: 02

SAMPLED BY: RESOURCE QUALITY SECTION

CHARGE TO: WATER PGM (RSRC QUAL SCN)

DATE PROCESSED TO COMPUTER: SEP 28/83

0250001	MOISTURE	77.6	2612601	MERCURY	0.10
		%			UG/G WET

FOLLOWING ARE PACKAGE TESTS:

1192612	PHOSPHORUS :TOT	9.85 MG/G DRY	2912611	ARSENIC	L 22. UG/G DRY
2522611	BORON	2. UG/G DRY	2532611	CADMIUM	L 1. UG/G DRY
2542611	CALCIUM	862. UG/G DRY	2552611	CHROMIUM	L 1. UG/G DRY
2562611	COPPER	2. UG/G DRY	2572611	IRON	L 1. UG/G DRY
2582611	LEAD	L 10. UG/G DRY	2592612	MAGNESIUM	1.22 UG/G DRY
2602611	MANGANESE	L 1. UG/G DRY	2622611	MOLYBDENUM	L 1. UG/G DRY
2632611	NICKEL	L 5. UG/G DRY	2662611	ZINC	11. UG/G DRY
2672611	ALUMINUM	L 2. UG/G DRY	2682611	COBALT	L 10. UG/G DRY
2702611	BARIUM	L 1. UG/G DRY	2722611	VANADIUM	L 1. UG/G DRY
2742611	SELENIUM	L 10. UG/G DRY	2762611	TITANIUM	L 1. UG/G DRY
2822611	TIN	10. UG/G DRY	2832611	BERYLLIUM	L 1. UG/G DRY

SAMPLE NO. 311013W CONTINUED ON NEXT PAGE.

FEBRUARY 23, 1984

ENVIRONMENTAL LABORATORY
MINISTRY OF THE ENVIRONMENT

PAGE 2

WATER QUALITY REPORT FOR SAMPLE 311013W

2842611 THALLIUM

22. 2872611 STRONTIUM

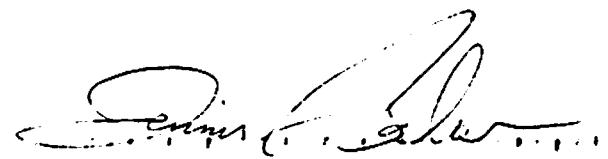
L.I.
UG/G DRY

2882611 TELLURIUM

L 20.
UG/G DRY

THE APPROXIMATE COST OF THE ABOVE TESTS IS \$ 123.00

REMARKS:


FOR ENVIRONMENTAL LABORATORY

SAMPLER'S COMMENTS: RAINBOW TROUT MUSCLE #2

FEBRUARY 23, 1984

ENVIRONMENTAL LABORATORY
MINISTRY OF THE ENVIRONMENT

PAGE 1

WATER QUALITY REPORT FOR SAMPLE 311014W

TO: RESOURCE QUALITY SEC
 765 BROUGHTON ST.
 VICTORIA, B.C. V8V 1X5
 ATTENTION OF: C MCKEAN

FOR SITE: 1130676 MCQUARRIE LAKE DEEP STN

SAMPLING DATE(S): SEP 21/83 0000 HRS

SAMPLE TYPE: FISH TISSUE

SUB-SAMPLE: 01

COMPONENTS: 03

SAMPLED BY: RESOURCE QUALITY SECTION

CHARGE TO: WATER PGM (RSRC QUAL SCN)

DATE PROCESSED TO COMPUTER: SEP 28/83

0250001	MOTSTURE	77.7	2612601	MERCURY	0.08
		%			UG/G WET

FOLLOWING ARE PACKAGE TESTS:

1192612	PHOSPHORUS STOT	9.35	2512611	ARSENIC	L 22.
		MG/G DRY			UG/G DRY
2522611	BORON	1.	2532611	CADMIUM	L 1.
		UG/G DRY			UG/G DRY
2542611	CALCIUM	500.	2552611	CHROMIUM	L 1.
		UG/G DRY			UG/G DRY
2562611	COPPER	2.	2572611	IRON	68.
		UG/G DRY			UG/G DRY
2582611	LEAD	L 10.	2592612	MAGNESIUM	1.13
		UG/G DRY			MG/G DRY
2602611	MANGANESE	L 1.	2622611	MOLYBDENUM	L 1.
		UG/G DRY			UG/G DRY
2632611	NICKEL	L 5.	2662611	ZINC	39.
		UG/G DRY			UG/G DRY
2672611	ALUMINUM	L 2.	2682611	COBALT	L 10.
		UG/G DRY			UG/G DRY
2702611	BARIUM	L 1.	2722611	VANADIUM	L 1.
		UG/G DRY			UG/G DRY
2742611	SELENIUM	L 10.	2762611	TITANIUM	L 1.
		UG/G DRY			UG/G DRY
2822611	TIN	12.	2832611	BERYLLIUM	L 1.
		UG/G DRY			UG/G DRY

SAMPLE NO. 311014W CONTINUED ON NEXT PAGE.

FEBRUARY 23, 1984

ENVIRONMENTAL LABORATORY
MINISTRY OF THE ENVIRONMENT

PAGE 2

WATER QUALITY REPORT FOR SAMPLE 311014W

2842611 THALLIUM

L 20,
UG/G DRY

2872611 STRONTIUM

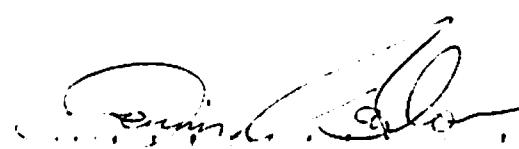
L 10,
UG/G DRY

2882611 TELLURIUM

L 20,
UG/G DRY

THE APPROXIMATE COST OF THE ABOVE TESTS IS \$ 123.00

REMARKS:


FOR ENVIRONMENTAL LABORATORY

SAMPLER'S COMMENTS: RAINBOW TROUT MUSCLE #3

FEBRUARY 23, 1984

ENVIRONMENTAL LABORATORY
MINISTRY OF THE ENVIRONMENT

PAGE 1

WATER QUALITY REPORT FOR SAMPLE 31101SW

TO: RESOURCE QUALITY SEC
 765 BROUGHTON ST.
 VICTORIA, B.C. V8V 1X5
 ATTENTION OF: C MCKEAN

FOR SITE: 1130676 MCQUARRIE LAKE DEEP STN

SAMPLING DATE(S): SEP 21/83 0000 HRS

SAMPLE TYPE: FISH TISSUE

SUB-SAMPLE: 01

COMPONENT: 04

SAMPLED BY: RESOURCE QUALITY SECTION

CHARGE TO: WATER PGM (RSRC QUAŁ SCN)

DATE PROCESSED TO COMPUTER: SEP 28/83

0250001	MOISTURE	77.7	2612601	MERCURY	0.07
		%			UG/G WET

FOLLOWING ARE PACKAGE TESTS:

1192612	PHOSPHORUS STOT	9.40	2512611	ARSENIC	L 22.
		MG/G DRY			UG/G DRY
2522611	BORON	2.	2532611	CADMIUM	L 1.
		UG/G DRY			UG/G DRY
2542611	CALCIUM	773.	2552611	CHROMIUM	L 1.
		UG/G DRY			UG/G DRY
2562611	COPPER	3.	2572611	IRON	113.
		UG/G DRY			UG/G DRY
2582611	LEAD	L 10.	2592612	MAGNESIUM	1.21
		UG/G DRY			UG/G DRY
2602611	MANGANESE	L 1.	2622611	MOLYBDENUM	L 1.
		UG/G DRY			UG/G DRY
2632611	NICKEL	L 5.	2662611	ZINC	27.
		UG/G DRY			UG/G DRY
2672611	ALUMINUM	L 2.	2682611	COBALT	L 10.
		UG/G DRY			UG/G DRY
2702611	BARIUM	L 1.	2722611	VANADIUM	L 1.
		UG/G DRY			UG/G DRY
2742611	SELENIUM	L 10.	2762611	TITANIUM	L 1.
		UG/G DRY			UG/G DRY
2822611	TIN	L 5.	2832611	BERYLLIUM	L 1.
		UG/G DRY			UG/G DRY

SAMPLE NO. 31101SW CONTINUED ON NEXT PAGE.

FEBRUARY 23, 1984

ENVIRONMENTAL LABORATORY
MINISTRY OF THE ENVIRONMENT

PAGE 2

WATER QUALITY REPORT FOR SAMPLE 311015W

2842611 THALLIUM

L 20,
UG/G DRY

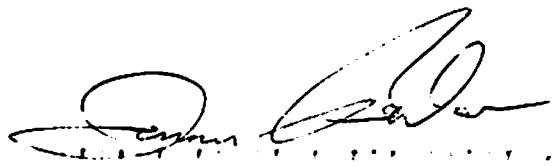
L 1,
UG/G DRY

2882611 TELLURIUM

L 20,
UG/G DRY

THE APPROXIMATE COST OF THE ABOVE TESTS IS \$ 123.00

REMARKS:


FOR ENVIRONMENTAL LABORATORY

SAMPLER'S COMMENTS: RAINBOW TROUT MUSCLE #4

FEBRUARY 23, 1984

ENVIRONMENTAL LABORATORY
MINISTRY OF THE ENVIRONMENT

PAGE 1

WATER QUALITY REPORT FOR SAMPLE 311016W

TO: RESOURCE QUALITY SEC
 765 BROUGHTON ST.
 VICTORIA, B.C. V8V 1X5
 ATTENTION OF: C MCKEAN

FOR SITE: 1130676 MCQUARRIE LAKE DEEP STN

SAMPLING DATE(S): SEP 21/83 0000 HRS

SAMPLE TYPE: FISH TISSUE

SUB-SAMPLE: 01

COMPONENT: 05

SAMPLED BY: RESOURCE QUALITY SECTION

CHARGE TO: WATER PGM (RSRC QUAL SCN)

DATE PROCESSED TO COMPUTER: SEP 28/83

0250001 MOISTURE	78.2	2612601 MERCURY	0.06
	%		UG/G WET

FOLLOWING ARE PACKAGE TESTS:

1192612 PHOSPHORUS :TOT	10.6	2512611 ARSENIC	L 23.
	MG/G DRY		UG/G DRY
2522611 BORON	1.	2532611 CADMIUM	L 1.
	UG/G DRY		UG/G DRY
2542611 CALCIUM	399.	2552611 CHROMIUM	L 1.
	UG/G DRY		UG/G DRY
2562611 COPPER	9.	2572611 IRON	A5.
	UG/G DRY		UG/G DRY
2582611 LEAD	L 10.	2592612 MAGNESIUM	1.24
	UG/G DRY		MG/G DRY
2602611 MANGANESE	L 1.	2622611 MOLYBDENUM	1.
	UG/G DRY		UG/G DRY
2632611 NICKEL	L 5.	2662611 ZINC	24.
	UG/G DRY		UG/G DRY
2672611 ALUMINUM	L 2.	2682611 COBALT	L 10.
	UG/G DRY		UG/G DRY
2702611 BARIUM	L 1.	2722611 VANADIUM	L 1.
	UG/G DRY		UG/G DRY
2742611 SELENIUM	L 10.	2762611 TITANIUM	L 1.
	UG/G DRY		UG/G DRY
2822611 TIN	L 5.	2832611 BERYLLIUM	L 1.
	UG/G DRY		UG/G DRY

SAMPLE NO. 311016W CONTINUED ON NEXT PAGE.

FEBRUARY 23, 1984

ENVIRONMENTAL LABORATORY
MINISTRY OF THE ENVIRONMENT

PAGE 2

WATER QUALITY REPORT FOR SAMPLE 311016W

2842611 THALLIUM

49,

UG/G DRY

2872611 STRONTIUM

L 1.

UG/G DRY

2882611 TELLURIUM

28,

UG/G DRY

THE APPROXIMATE COST OF THE ABOVE TESTS IS \$ 123.00

REMARKS:


FOR ENVIRONMENTAL LABORATORY

SAMPLER'S COMMENTS: RAINBOW TROUT MUSCLE #5

FEBRUARY 23, 1984

ENVIRONMENTAL LABORATORY
MINISTRY OF THE ENVIRONMENT

PAGE 1

WATER QUALITY REPORT FOR SAMPLE 311017W

TO: RESOURCE QUALITY SEC
 765 BROUGHTON ST.
 VICTORIA, B.C. V8V 1X5
 ATTENTION OF: C MCKEAN

FOR SITE: 1130676 MCQUARRIE LAKE DEEP STN

SAMPLING DATE(S): SEP 21/83 0000 HRS

SAMPLE TYPE: FISH TISSUE

SUB-SAMPLE: 01

LIVER
TISSUE

COMPONENT: 51

SAMPLED BY: RESOURCE QUALITY SECTION

CHARGE TO: WATER PGM (RSRC QUAL SEC)

DATE PROCESSED TO COMPUTER: SEP 28/83

0250001 MOISTURE 71.3%

FOLLOWING ARE PACKAGE TESTS:

1192612	PHOSPHORUS :TOT	12.6 MG/G DRY	2512611	ARSENIC	L 49. UG/G DRY
2522611	BORON	3. UG/G DRY	2532611	CADMIUM	L 2. UG/G DRY
2542611	CALCIUM	608. UG/G DRY	2552611	CHROMIUM	L 2. UG/G DRY
2562611	COPPER	50. UG/G DRY	2572612	IRON	3.05 MG/G DRY
2582611	LEAD	59. UG/G DRY	2592612	MAGNESIUM	1.21 MG/G DRY
2602611	MANGANESE	6. UG/G DRY	2622611	MOLYBDENUM	L 2. UG/G DRY
2632611	NICKEL	L 10. UG/G DRY	2662611	ZINC	158. UG/G DRY
2672611	ALUMINUM	L 4. UG/G DRY	2682611	COBALT	L 20. UG/G DRY
2702611	BARIUM	L 2. UG/G DRY	2722611	VANADIUM	L 2. UG/G DRY
2742611	SELENIUM	L 20. UG/G DRY	2762611	TITANIUM	L 2. UG/G DRY
2822611	TIN	L 10. UG/G DRY	2832611	BERYLLIUM	L 2. UG/G DRY

SAMPLE NO. 311017W CONTINUED ON NEXT PAGE.

FEBRUARY 23, 1984

ENVIRONMENTAL LABORATORY
MINISTRY OF THE ENVIRONMENT

PAGE 2

WATER QUALITY REPORT FOR SAMPLE 311017W

2842611 THALLIUM

L 39, 2872611 STRONTIUM
UG/G DRY

L 2,
UG/G DRY

2882611 TELLURIUM

L 39,
UG/G DRY

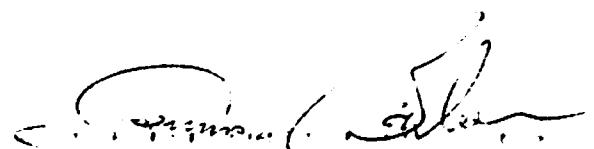
THE APPROXIMATE COST OF THE ABOVE TESTS IS \$ 75.00

THERE IS NO CHARGE FOR THE FOLLOWING TESTS

2612601 MERCURY

B
UG/G WET

REMARKS:


FOR ENVIRONMENTAL LABORATORY

SAMPLER'S COMMENTS: RAINBOW TROUT LIVER #1

FEBRUARY 23, 1984

ENVIRONMENTAL LABORATORY
MINISTRY OF THE ENVIRONMENT

PAGE 1

WATER QUALITY REPORT FOR SAMPLE 311018W

TO: RESOURCE QUALITY SEC
 765 BROUGHTON ST.
 VICTORIA, B.C. V8V 1X5
 ATTENTION OFF C MCKEAN

FOR SITE: 1130676 MCQUARRIE LAKE DEEP STN

SAMPLING DATE(S): SEP 21/83 0000 HRS

SAMPLE TYPE: FISH TISSUE

SUB-SAMPLE: 01

COMPONENT: 52

SAMPLED BY: RESOURCE QUALITY SECTION

CHARGE TO: WATER PGM (SRC QUAL SCN)

DATE PROCESSED TO COMPUTER: SEP 28/83

0250001 MOISTURE 81.7

%

FOLLOWING ARE PACKAGE TESTS:

1192612	PHOSPHORUS :TOT	13.9 MG/G DRY	2512611	ARSENIC	L 31. UG/G DRY
2522611	BORON	L 1. UG/G DRY	2532611	CADMIUM	L 1. UG/G DRY
2542611	CALCIUM	309. UG/G DRY	2552611	CHROMIUM	L 1. UG/G DRY
2562611	COPPER	24. UG/G DRY	2572612	IRON	1.33 MG/G DRY
2582611	LEAD	L 12. UG/G DRY	2592611	MAGNESIUM	825. UG/G DRY
2602611	MANGANESE	13. UG/G DRY	2622611	MOLYBDENUM	L 1. UG/G DRY
2632611	NICKEL	L 6. UG/G DRY	2662611	ZINC	106. UG/G DRY
2672611	ALUMINUM	L 2. UG/G DRY	2682611	CORALT	L 12. UG/G DRY
2702611	BARIUM	L 1. UG/G DRY	2722611	VANADIUM	L 1. UG/G DRY
2742611	SELENIUM	L 12. UG/G DRY	2762611	TITANIUM	L 1. UG/G DRY
2822611	TIN	L 6. UG/G DRY	2832611	BERYLLIUM	L 1. UG/G DRY

SAMPLE NO. 311018W CONTINUED ON NEXT PAGE.

FEBRUARY 23, 1984

ENVIRONMENTAL LABORATORY
MINISTRY OF THE ENVIRONMENT

PAGE 2

WATER QUALITY REPORT FOR SAMPLE 311018W

2842611 THALLIUM

L 25. 2872611 STRONTIUM

L 1.
UG/G DRY

2882611 TELLURIUM

L 25.
UG/G DRY

THE APPROXIMATE COST OF THE ABOVE TESTS IS \$ 75.00

THERE IS NO CHARGE FOR THE FOLLOWING TESTS

2612601 MERCURY

B
UG/G WET

REMARKS:


FOR ENVIRONMENTAL LABORATORY

SAMPLER'S COMMENTS: RAINBOW TROUT LIVER #2

FEBRUARY 23, 1984

ENVIRONMENTAL LABORATORY
MINISTRY OF THE ENVIRONMENT

PAGE 1

WATER QUALITY REPORT FOR SAMPLE 311019W

TO: RESOURCE QUALITY SEC
 765 BROUGHTON ST.
 VICTORIA, B.C. V8V 1X5
 ATTENTION OF: C MCKEAN

FOR SITE: 1130676 MCQUARRIE LAKE DEEP STN

SAMPLING DATE(S): SEP 21/83 0000 HRS

SAMPLE TYPE: FISH TISSUE

SUB-SAMPLE: 01

COMPONENT: 53

SAMPLED BY: RESOURCE QUALITY SECTION

CHARGE TO: WATER PGM (RSRC QUILA SCN)

DATE PROCESSED TO COMPUTER: SEP 28/83

0250001 MOISTURE 65.7
 %

FOLLOWING ARE PACKAGE TESTS:

1192612	PHOSPHORUS :TOT	13.8 MG/G DRY	2512611	ARSENIC	L 49. UG/G DRY
2522611	BORON	4. UG/G DRY	2532611	CADMIUM	L 2. UG/G DRY
2542611	CALCIUM	204. UG/G DRY	2552611	CHROMIUM	L 2. UG/G DRY
2562611	COPPER	95. UG/G DRY	2572612	IRON	1.68 MG/G DRY
2582611	LEAD	L 20. UG/G DRY	2592611	MAGNESIUM	749. UG/G DRY
2602611	MANGANESE	8. UG/G DRY	2622611	MOLYBDENUM	L 2. UG/G DRY
2632611	NICKEL	L 10. UG/G DRY	2662611	ZINC	138. UG/G DRY
2672611	ALUMINUM	L 4. UG/G DRY	2682611	COBALT	L 20. UG/G DRY
2702611	BARIUM	L 2. UG/G DRY	2722611	VANADIUM	L 2. UG/G DRY
2742611	SELENIUM	L 20. UG/G DRY	2762611	TITANIUM	L 2. UG/G DRY
2822611	TIN	L 10. UG/G DRY	2832611	BERYLLIUM	L 2. UG/G DRY

SAMPLE NO. 311019W CONTINUED ON NEXT PAGE.

FEBRUARY 23, 1984

ENVIRONMENTAL LABORATORY
MINISTRY OF THE ENVIRONMENT

PAGE 2

WATER QUALITY REPORT FOR SAMPLE 3110194

2842611 THALLIUM

L 39.
UG/G DRY

2872611 STRONTIUM

L 2.
UG/G DRY

2882611 TELLURIUM

L 39.
UG/G DRY

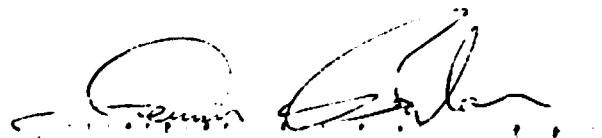
THE APPROXIMATE COST OF THE ABOVE TESTS IS \$ 75.00

THERE IS NO CHARGE FOR THE FOLLOWING TESTS

2612601 MERCURY

B
UG/G WET

REMARKS:


John G. Baker
FOR ENVIRONMENTAL LABORATORY

SAMPLER'S COMMENTS: RAINBOW TROUT LIVER #3

FEBRUARY 23, 1984

ENVIRONMENTAL LABORATORY
MINISTRY OF THE ENVIRONMENT

PAGE 1

WATER QUALITY REPORT FOR SAMPLE 311021W

TO: RESOURCE QUALITY SEC
 765 BROUGHTON ST.
 VICTORIA, B.C. V8V 1X5
 ATTENTION OF: C MCKEAN

FOR SITE: 1130676 MCQUARRIE LAKE DEEP STN

SAMPLING DATE(S): SEP 21/83 0000 HRS

SAMPLE TYPE: FISH TISSUE

SUB-SAMPLE: 01

COMPONENTS: 55

SAMPLED BY: RESOURCE QUALITY SECTION

CHARGE TO: WATER PGM (RSRC QUAL SEC)

DATE PROCESSED TO COMPUTER: SEP 28/83

0250001 MOISTURE 71.7%

FOLLOWING ARE PACKAGE TESTS:

1192612	PHOSPHORUS :TOT	13.1 MG/G DRY	2512611	ARSENIC	L 68. UG/G DRY
2522611	BORON	L 3. UG/G DRY	2532611	CADMIUM	L 3. UG/G DRY
2542611	CALCIUM	217. UG/G DRY	2552611	CHROMIUM	L 3. UG/G DRY
2562611	COPPER	126. UG/G DRY	2572612	IRON	1.91 MG/G DRY
2582611	LEAD	L 27. UG/G DRY	2592611	MAGNESIUM	668. UG/G DRY
2602611	MANGANESE	4. UG/G DRY	2622611	MOLYBDENUM	L 3. UG/G DRY
2632611	NICKEL	L 14. UG/G DRY	2662611	ZINC	135. UG/G DRY
2672611	ALUMINUM	L 5. UG/G DRY	2682611	COBALT	L 27. UG/G DRY
2702611	BARIUM	L 3. UG/G DRY	2722611	VANADIUM	L 3. UG/G DRY
2742611	SELENIUM	L 27. UG/G DRY	2762611	TITANIUM	L 3. UG/G DRY
2822611	TIN	L 14. UG/G DRY	2832611	BERYLLIUM	L 3. UG/G DRY

SAMPLE NO. 311021W CONTINUED ON NEXT PAGE.

FEBRUARY 23, 1984

ENVIRONMENTAL LABORATORY
MINISTRY OF THE ENVIRONMENT

PAGE 2

WATER QUALITY REPORT FOR SAMPLE 311021W

2842611 THALLIUM

L 54.
UG/G DRY

L 3,
UG/G DRY

2882611 TELLURIUM

L 54,
UG/G DRY

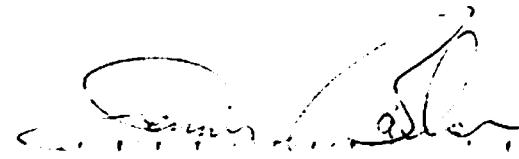
THE APPROXIMATE COST OF THE ABOVE TESTS IS \$ 75.00

THERE IS NO CHARGE FOR THE FOLLOWING TESTS

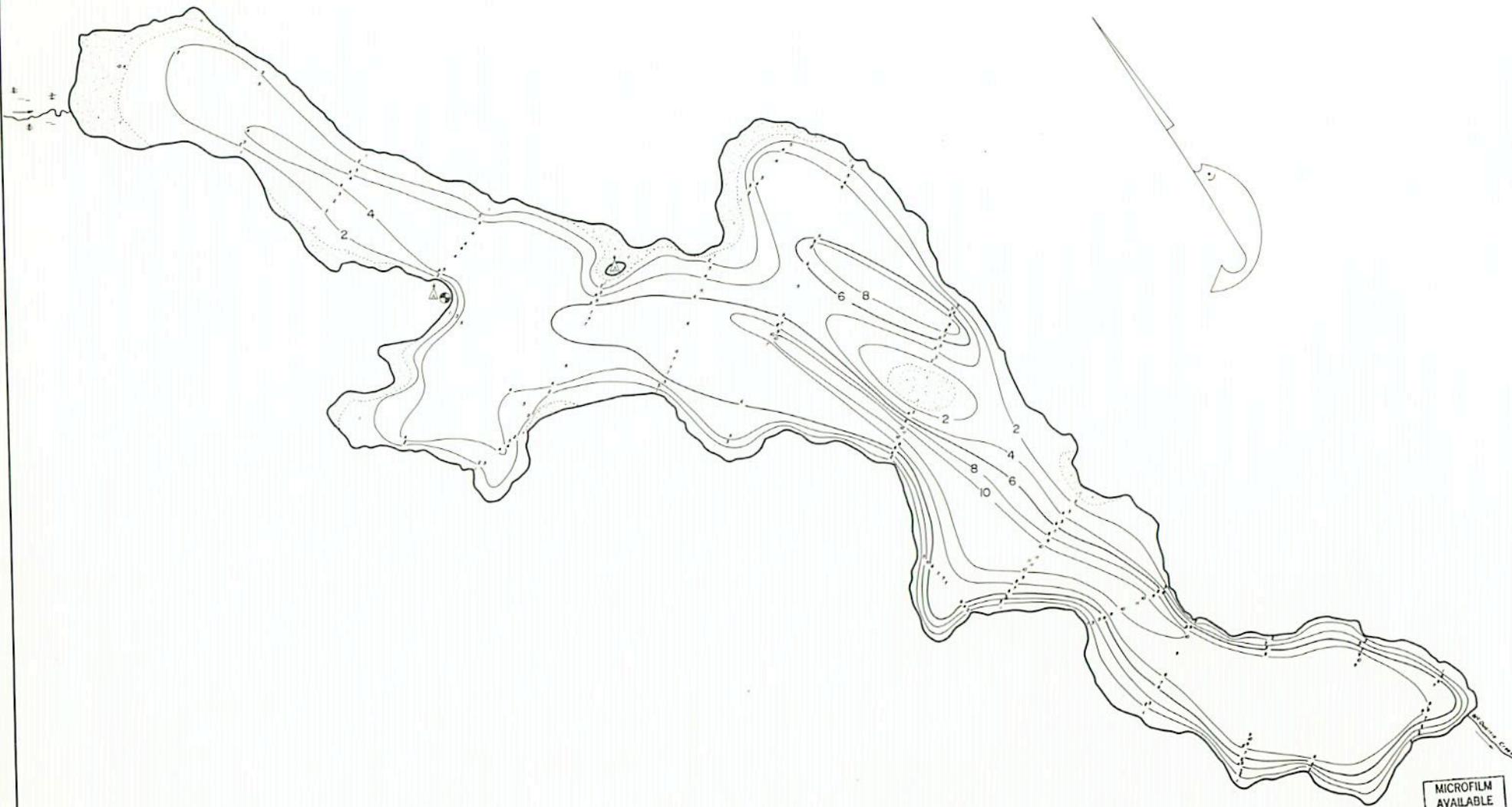
2612601 MERCURY

B
UG/G WET

REMARKS:


FOR ENVIRONMENTAL LABORATORY

SAMPLER'S COMMENTS: RAINBOW TROUT LIVER #5



MICROFILM
AVAILABLE

Reduced to
33%
of Original

INSET MAP Scale 1:250,000		SURVEYED BY T.N. WEBER DATE: SEPT. 21, 1963 SHORE OUTLINE FROM AIR PHOTO BC 79075 100 JULY 1979	RESOURCE ANALYSIS BRANCH MINISTRY OF THE ENVIRONMENT BIOLOGICAL SYSTEMS SECTION	
		STATISTICS AT TIME OF SURVEY		
		1 ELEVATION	1064 m	
		2 SURFACE AREA	2,160,000 sq m	
		3 VOLUME	6,455,000 m ³	
		4 EST ANNUAL FLUCTUATION	—	
		5 MEAN DEPTH	4.7 m	
		6 MAX DEPTH	11 m	
		7 PERIMETER	12,400 m (± 10%) (22 m)	
		8 AREA, ABOVE 6 m CONTOUR	1,460,000 sq m	
		9 HEIGHT OF BENCH MARK ABOVE WATER LEVEL	2 m	
WATERSHED CODE NO. 44-8000				
REGION 6-A		UTM CO-ORDINATE # 4805 X 8000		
DATE: FEB. 14, 1964		DRAWN: R.D.		SCALE 1:5,500
CALCULATIONS: T.M.		CHECK: D.G.		
PLOTTING: T.M.		APPROVED:		
PAIR DMS: 2 4 0		J.O.B. Shand		# 18 93L/10