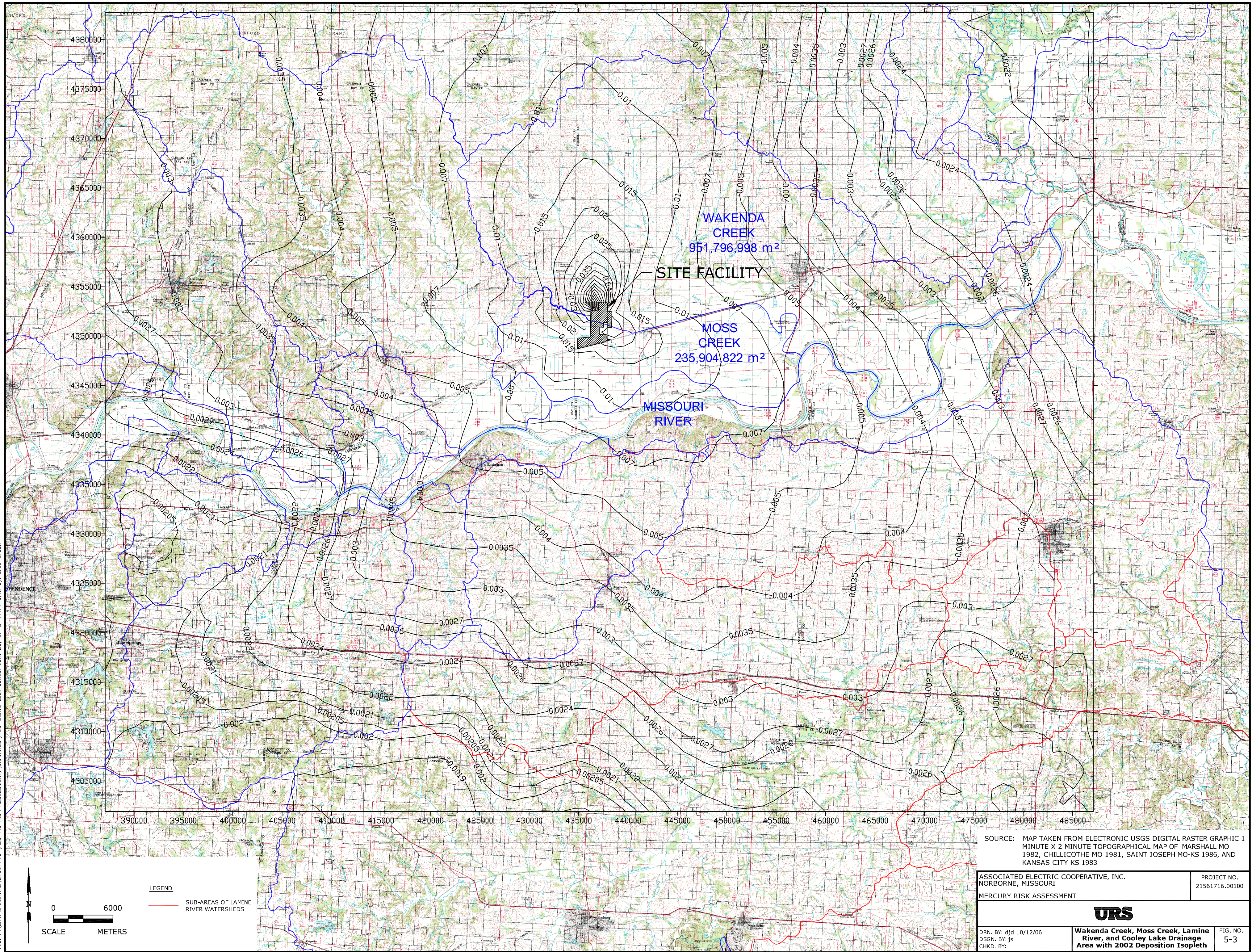


File: P:\ENVIRONMENTAL\21561716 (AEC HG RISK ASSESSMENT)\DRAWINGS\FIG5-3.DWG Last edited: JUN. 20. 07 @ 11:11 a.m. by: drew_brouk



WAKENDA CREEK
951,796,998 m²

SITE FACILITY

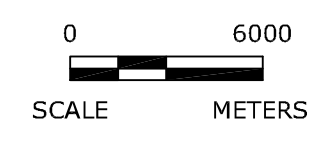
MOSS CREEK
235,904,822 m²

MISSOURI RIVER

SOURCE: MAP TAKEN FROM ELECTRONIC USGS DIGITAL RASTER GRAPHIC 1 MINUTE X 2 MINUTE TOPOGRAPHICAL MAP OF MARSHALL MO 1982, CHILLICOTHE MO 1981, SAINT JOSEPH MO-KS 1986, AND KANSAS CITY KS 1983

LEGEND

— SUB-AREAS OF LAMINE RIVER WATERSHEDS



ASSOCIATED ELECTRIC COOPERATIVE, INC. NORBORNE, MISSOURI	PROJECT NO. 21561716.00100
MERCURY RISK ASSESSMENT	
URS	
DRN. BY: djd 10/12/06 DSGN. BY: js CHKD. BY:	Wakenda Creek, Moss Creek, Lamine River, and Cooley Lake Drainage Area with 2002 Deposition Isopeht
	FIG. NO. 5-3

APPENDIX A

References

In addition to the footnoted references, the following references were used or consulted during this project.

APPENDIX A

References

- Flora, Joseph R.V., Hargis, Richard A. O'Dowd, William J. Pennline, Henry W, Vidic, Radisav D. United States Department of Energy National Energy Technology Laboratory Modeling powdered sorbent injection in combination with fabric Filter for the control of mercury emissions Washington, D.C.: GPO, 2002.
- Grosch, Thomas. "www.trinityconsultants.com/downloads/tp_wessex99.pdf" Sensitivity of the AERMOD air quality model to the selection of land use parameters. 04 AUG 1999. Trinity Consultants. 9 Sep 2006 <http://www.trinityconsultants.com/downloads/tp_wessex99.pdf >.
- Keeler, Gerald J., Marsik, Frank J., Al-Wali, Khalid I., Dvonch, J. Timothy. The University of Michigan Air Quality Laboratory. Modeled Deposition of Speciated Mercury to the SFWMD Water Conservation Area 3A: 22 June 1995 to 21 June 1996 – Project Description and Results. Washington, D.C.: NTIS, March 2005
- Loux, Nicholas. "A critical assessment of elemental mercury air/water exchange parameters." Chemical Speciation and Bioavailability 16(4) (2004): 127-138.
- Loux, Nicholas. "An assessment of mercury-species-dependent binding with natural organic carbon." Chemical Speciation and Bioavailability 10(4) (1998): 127-136.
- Loux, Nicholas. "Monitoring cyclical air/water elemental mercury exchange." Journal of Environmental Monitoring 3 (2000): 43-48.
- Loux, Nicholas. "Diel temperature effects on the exchange of elemental mercury between the atmosphere and underlying waters." Environmental toxicology and Chemistry 19(4) (2000): 1191-1198.
- Sullivan, T.M., Lipfert, F.D., Morris, S.M., Renninger S. United States Department of Energy, National Energy Technology Laboratory. Assessing the mercury health risks associated with coal-fired power plants: impacts of local depositions. Washington, D.C.: GPO, 2003.
- United States Army Corps of Engineers. 1986. 33 CFR Part 328. Final Rules and Regulations dated Thursday, November 13, 1986.

APPENDIX A

References

- United States Army Corps of Engineers. 1987. US Army Corps of Engineers Waterways Experiment Station, Wetlands Research Program Technical Report Y-87-1. <http://el.erdc.usace.army.mil/elpubs/pdf/wlman87.pdf>
- United States Department of the Interior, Geological Survey. 1978. Hardin, Missouri Quadrangle 7.5 Minute Series (Topographic). Washington, D.C.
- United States Department of the Interior, Geological Survey. 1978. Norborne, Missouri Quadrangle 7.5 Minute Series (Topographic). Washington, D.C.
- United States Department of the Interior, Geological Survey. 1979. Roads, Missouri Quadrangle 7.5 Minute Series (Topographic). Washington, D.C.
- United States Department of the Interior, Geological Survey. 1979. Stet, Missouri Quadrangle 7.5 Minute Series (Topographic). Washington, D.C.
- United States Environmental Protection Agency (USEPA). Technical Support Document for the Final Clean Air Mercury Rule - Air Quality Modeling. Washington, D.C.: NTIS, March 2005.
- United States Environmental Protection Agency (USEPA). Final Water Quality Criterion for the Protection of Human Health: Methylmercury. Washington, D.C.: NTIS, January 2001. EPA-823-R-01-001.
- United States Environmental Protection Agency (USEPA). User's Guide for the AERMOD Meteorological Preprocessor (AERMET). Washington, D.C.: NTIS, November 2004. EPA-454/B-03-002.
- United States Environmental Protection Agency (USEPA). AERMOD: Latest Features and Evaluation Results. Washington, D.C.: NTIS, June 2003. EPA-454/R-03-003.
- United States Environmental Protection Agency (USEPA). Revised Draft User's Guide for the AERMOD Terrain Preprocessor (AERMAP). April 2003.
- United States Environmental Protection Agency (USEPA). Revised Draft User's Guide for the AMS/EPA Regulatory Model (AERMOD). September 2002.
- United States Environmental Protection Agency (USEPA). Final Human Health Risk Assessment Protocol for Hazardous Waste Combustion Facilities. Washington, D.C.: NTIS, September 2005. EPA-530-R-05-006.

APPENDIX A

References

- United States Environmental Protection Agency (USEPA). Mercury Study Report to Congress, Volume III Fate and Transport of Mercury in the Environment. Washington, D.C.: NTIS, December 1997. EPA-452/R-97-005.
- United States Environmental Protection Agency (USEPA). Addendum to User's Guide for the AMS/EPA Regulatory Model – AERMOD. Washington, D.C.: NTIS, October 2004.
- United States Environmental Protection Agency (USEPA). Draft Guidance for Implementing the January 2001 Methylmercury Water Quality Criterion. Washington, D.C.: NTIS, August 2006. EPA-823-B-04-001.
- Wesely, M.L. Doskey, P.V., Shannon, J.D. United States Department of Energy, Office of Science, Office of Biological and Environmental Research. Deposition Parameterizations for the Industrial Source Complex (ISC3) Model. Washington, D.C.: GPO, 2002. ANL/ER/TR-01/003.

APPENDIX B

MDNR Mercury in Fish Database

APPENDIX B

MDNR Mercury in Fish Database

Organization	Site Name	SPECIES	COUNTY	Year	No. Samples	Preparation Method	Average Length (in)	Weight (lbs)	FAT (%)	MERCURY (ppm)
MDC	Belcher Br. Lake	largemouth bass	BUCHANAN	2002	15	Fillet		1.4		0.584
MDC	Blackwater R. @ McAllister Sprs.	channel catfish	SALINE	2002	2	Fillet		1.4		0.040
MDC	Blackwater R. @ McAllister Sprs.	carp	SALINE	2002	21	Fillet		4.6		0.073
EPA/MDNR	Blue R. @ US 71	carp	JACKSON	1999	5	Fillet		3.98		0.035
EPA/MDNR	Blue R. @ US 71	carp	JACKSON	1985	1	Whole Fish		7.6	8	0.150
EPA/MDNR	Blue R. @ US 71	carp	JACKSON	1984	1	Whole Fish		5.5	7	0.060
EPA/MDNR	Blue R. 0.6 mi.ab. Brush Cr. @Blue Parkway	carp	JACKSON	1985	1	Whole Fish		11.2	11	0.090
MDC	Blue R. 3.0 mi.ab. Indian Cr.	largemouth bass	JACKSON	2001	15	Fillet				0.082
EPA/MDNR	Blue R. 3.0 mi.ab. Indian Cr.	carp	JACKSON	2000	5	Fillet		3.9		LT 0.0181
MDC	Blue R. 3.0 mi.ab. Indian Cr.	channel catfish	JACKSON	2001	15	Fillet		2	2	0.066
MDC	Blue R. 6.6 mi.ab.Indian Cr. @ Blue Ridge Blvd	carp	JACKSON	1990	5	Fillet		5.5		0.016
MDC	Blue R. 6.6 mi.ab.Indian Cr. @ Blue Ridge Blvd	carp	JACKSON	1994	38	Fillet		3.8	5	0.180
MDC	Blue R. 6.6 mi.ab.Indian Cr. @ Blue Ridge Blvd	carp	JACKSON	1994	38	Fillet		3.8	6	0.142
MDC	Blue R. 6.6 mi.ab.Indian Cr. @ Blue Ridge Blvd	carp	JACKSON	1994	38	Fillet		3.8	6	0.119
MDC	Blue R. 6.6 mi.ab.Indian Cr. @ Blue Ridge Blvd	channel catfish	JACKSON	1990	5	Fillet		1.4		LT 0.010
MDC	Blue R. 6.6 mi.ab.Indian Cr. @ Blue Ridge Blvd	largemouth bass	JACKSON	1987	3	Fillet		0.6	1	0.270
EPA/MDNR	Blue R. bl. Blue Ridge Blvd.	carp	JACKSON	2003	3	Fillet		14.1		0.168
EPA/MDNR	Blue R. bl. Blue Ridge Blvd.	largemouth bass	JACKSON	2003	3	Fillet		3		0.033
EPA/MDNR	Blue R. just ab. Brush Cr.	green sunfish	JACKSON	2004	5	Fillet	4.1	0.1		0.070
EPA/MDNR	Blue R. just ab. Brush Cr.	channel catfish	JACKSON	2003	5	Fillet		0.6		0.035
EPA/MDNR	Blue R. just ab. Brush Cr.	largemouth bass	JACKSON	2003	1	Fillet		0.6		0.121
MDC	BLUE R. RD. LK.	largemouth bass	JACKSON?	1987	5	Fillet		0.9		0.182

APPENDIX B

MDNR Mercury in Fish Database

Organization	Site Name	SPECIES	COUNTY	Year	No. Samples	Preparation Method	Average Length (in)	Weight (lbs)	FAT (%)	MERCURY (ppm)
EPA/MDNR	Blue River 1 mi.bl. Indian Cr.	carp	JACKSON	1985	1	Whole Fish		9.2	14	0.100
MDC	Blue Springs L. at bend	largemouth bass	JACKSON	1996	10	Fillet		2	1	0.220
MDC	Blue Springs L. at bend	carp	JACKSON	1993	15	Fillet		2.9	2	0.057
MDC	Blue Springs L. at bend	channel catfish	JACKSON	1992		Fillet				0.270
MDC	Blue Springs L. at bend	carp	JACKSON	1992		Fillet				0.025
MDC	Bluestem Lake	largemouth bass	JACKSON	1987	5	Fillet		1.5	1	0.570
MDC	Cameron Lake #1	largemouth bass	DEKALB	1997	15	Fillet		2.1		0.270
MDC	Cameron Lake #2	largemouth bass	DEKALB	1997	15	Fillet		0.7		0.250
MDC	Cameron Lake #3	largemouth bass	DEKALB	1997	15	Fillet		1.6		0.167
EPA/MDNR	Chariton R. nr. Prairie Hill	carp	CHARITON	1990	3	Whole Fish			3	0.119
EPA/MDNR	Chariton R. nr. Prairie Hill	carp	CHARITON	1987	5	Whole Fish		2	3	0.022
EPA/MDNR	Chariton R. nr. Prairie Hill	carp	CHARITON	1981	5	Whole Fish				0.040
EPA/MDNR	Chariton R. nr. Prairie Hill	carp	CHARITON	1992		Whole Fish			3	0.077
EPA/MDNR	Chariton R. nr. Prairie Hill	carp	CHARITON	1984	5	Whole Fish		1.5	3	0.040
EPA/MDNR	Chariton R. nr. Prairie Hill	carp	CHARITON	1983	5	Whole Fish		2.5	10	0.060
EPA/MDNR	Chariton R. nr. Prairie Hill	carp	CHARITON	1982	5	Whole Fish		1.7	4	0.030
EPA/MDNR	Chariton R. nr. Prairie Hill	carp	CHARITON	1986	5	Whole Fish		3	5	0.055
EPA/MDNR	Chariton R. nr. Prairie Hill	carp	CHARITON	1985	5	Whole Fish		2.1	2	0.050
EPA/MDNR	Chariton R. nr. Prairie Hill	carp	CHARITON	1985	5	Whole Fish		1.8	1	0.050
MDC	CHAUMIERE LAKE	channel catfish	CLAY	1995	10	Fillet		1.2	4	0.061
MDC	CHAUMIERE LK.	largemouth bass	CLAY	1986	5	Fillet		1.3		0.150
MDC	Clover Dell Lake	largemouth bass	PETTIS	2002	13	Fillet		1		0.313
MDC	Clover Dell Lake	redear sunfish	PETTIS	2002	9	Fillet		0.5		0.114
MDC	Clover Dell Lake	bluegill	PETTIS	2002	10	Fillet		0.3		0.100
MDC	Cooley Lake	largemouth bass	CLAY	1987	4	Fillet		1.9	0	0.620
MDC	Coot Lake	largemouth bass	JACKSON	1987	5	Fillet		1.1	1	0.210
MDC	Cottontail Lake	largemouth bass	JACKSON	1987	5	Fillet		1.2	0	0.270

APPENDIX B

MDNR Mercury in Fish Database

Organization	Site Name	SPECIES	COUNTY	Year	No. Samples	Preparation Method	Average Length (in)	Weight (lbs)	FAT (%)	MERCURY (ppm)
MDC	EAGLE BLUFFS HOLEA	carp	BOONE	1992	1	Fillet				0.143
MDC	EAGLE BLUFFS HOLEC	carp	BOONE	1992	1	Fillet				0.063
MDC	EAGLE BLUFFS HOLED	carp	BOONE	1992	1	Fillet				0.083
MDC	EAGLE BLUFFS HOLEE	carp	BOONE	1992	1	Fillet				0.195
MDC	EAGLE BLUFFS HOLEF	carp	BOONE	1992	1	Fillet				0.183
MDC	Flat Cr. 5 mi. SE of Sedalia	sucker	PETTIS	2000	13	Fillet				0.151
MDC	Flat Cr. 5 mi. SE of Sedalia	buffalo	PETTIS	2001	1	Fillet		6.1		0.589
MDC	Flat Cr. 5 mi. SE of Sedalia	carp	PETTIS	2000	9	Fillet		6.1	4	0.129
MDC	Flat Cr. 5 mi. SE of Sedalia	Kentucky bass	PETTIS	2000	3	Fillet				0.296
MDC	Forest Hill CC Lake	largemouth bass	BOONE	1991		Fillet				0.580
MDC	Gopher Lake	largemouth bass	JACKSON	1987	5	Fillet		1.3	0	0.160
MDC	Grand R. @ Sumner	channel catfish	LIVINGSTON	2002	15	Fillet		0.6		0.080
EPA/MDNR	Grand R. nr. Bosworth	carp	CARROLL	1990	4	Whole Fish			5	0.169
EPA/MDNR	Grand R. nr. Bosworth	carp	CARROLL	1995	4	Whole Fish				0.438
EPA/MDNR	Grand R. nr. Bosworth	carp	CARROLL	1999	5	Whole Fish		3.12		0.063
EPA/MDNR	Grand R. nr. Bosworth	carp	CARROLL	1981	5	Whole Fish				0.040
EPA/MDNR	Grand R. nr. Bosworth	carp	CARROLL	1982	5	Whole Fish		2.1	4	0.020
EPA/MDNR	Grand R. nr. Bosworth	carp	CARROLL	2001	5	Whole Fish		3.6		0.140
EPA/MDNR	Grand R. nr. Bosworth	carp	CARROLL	1985	5	Whole Fish		1.5	2	0.040
EPA/MDNR	Grand R. nr. Bosworth	carp	CARROLL	1985	5	Whole Fish		1.6	2	0.040
EPA/MDNR	Grand R. nr. Bosworth	carp	CARROLL	1995	4	Whole Fish				0.284
EPA/MDNR	Grand R. nr. Bosworth	carp	CARROLL	1986	3	Whole Fish		2.2	4	0.050
EPA/MDNR	Grand R. nr. Bosworth	carp	CARROLL	1997	5	Whole Fish		2.6		0.151
EPA/MDNR	Grand R. nr. Bosworth	carp	CARROLL	1984	3	Whole Fish		1.5	3	0.030
EPA/MDNR	Grand R. nr. Bosworth	carp	CARROLL	1983	5	Whole Fish		1.7	40	0.040
EPA/MDNR	Grand R. nr. Bosworth	carp	CARROLL	1987	5	Whole Fish		2.2	5	0.011
EPA/MDNR	Grand R. nr. Bosworth	carp	CARROLL	1992		Whole Fish			3	0.126

APPENDIX B

MDNR Mercury in Fish Database

Organization	Site Name	SPECIES	COUNTY	Year	No. Samples	Preparation Method	Average Length (in)	Weight (lbs)	FAT (%)	MERCURY (ppm)
EPA/MDNR	Grand R. nr. Brunswick	carp	CARROLL	2003	5	Whole Fish				0.100
MDC	Grand R. nr. Gallatin	flathead catfish	DAVISS	1998	2	Fillet		2.4		0.220
MDC	Grindstone Reservoir	largemouth bass	DEKALB	1997	15	Fillet		1.1		0.435
MDC	Hamilton Reservoir	largemouth bass	CALDWELL	1997	15	Fillet		2.7		0.280
MDC	Indian Creek Lake	largemouth bass	LIVINGSTON	2002	11	Fillet		0.6		0.683
MDC	Jackrabbit Lake	largemouth bass	JACKSON	1987	5	Fillet		1.4	0	0.210
MDC	Jamesport Community Lake	largemouth bass	DAVISS	1997	15	Fillet		1.2		0.360
MDC	KNOX VILLAGE LK KC	largemouth bass	JACKSON	1986	4	Fillet		1.2		0.420
MDC	L HULEN LK COLUMBI	largemouth bass		1987	2	Fillet		1.8	1	0.560
MDC	L. Blue R. @ Mize Rd.	carp	JACKSON	1990	5	Fillet		2.6		0.015
MDC	L. Blue R. @ Mize Rd.	channel catfish	JACKSON	1990	4	Fillet		1.4		0.084
MDC	L. Blue R. bl. Longview Dam	carp	JACKSON	1990	5	Fillet		1		0.016
MDC	L. Blue R. bl. Longview Dam	channel catfish	JACKSON	1990	5	Fillet		1.3		0.015
MDC	L. Blue R. bl. Longview Dam	largemouth bass	JACKSON	1987	5	Fillet		1.6	1	0.610
MDC	L. Blue R. nr. Mouth	carp	JACKSON	1990	5	Fillet		2.5		0.015
MDC	L. Blue R. nr. Mouth	channel catfish	JACKSON	1990	5	Fillet		1.4		0.097
MDC	Lake Buteo	largemouth bass	JOHNSON	1987	5	Fillet		0.9	0	0.600
MDC	Lake Buteo	largemouth bass	JOHNSON	1986	5	Fillet		2.7		0.870
MDC	Lake Buteo	bluegill	JOHNSON	1996	5	Fillet		0.4	2	0.240
EPA/MDNR	Lake Buteo	largemouth bass	JOHNSON	2005	5	Fillet	10	0.4		0.937
MDC	Lake Buteo	largemouth bass	JOHNSON	2002	15	Fillet		0.6		0.739
MDC	Lake Buteo	largemouth bass	JOHNSON	1996	5	Fillet		1.3	2	0.631
EPA/MDNR	Lake Contrary	white crappie	BUCHANAN	1999	15	Fillet		0.33		LT 0.018
EPA/MDNR	Lake Contrary	carp	BUCHANAN	1999	23	Fillet		0.941		LT 0.018
MDC	Lake Jacomo	largemouth bass	JACKSON	1996	10	Fillet		2	1	0.230
MDC	Lake Jacomo	carp	JACKSON	1993	15	Fillet		4.9	4	0.065
MDC	Lake Jacomo	channel catfish	JACKSON	1992		Fillet				0.038

APPENDIX B

MDNR Mercury in Fish Database

Organization	Site Name	SPECIES	COUNTY	Year	No. Samples	Preparation Method	Average Length (in)	Weight (lbs)	FAT (%)	MERCURY (ppm)
MDC	Lake Jacomo	carp	JACKSON	1992		Fillet				0.037
MDC	Lake of the Woods	largemouth bass	BOONE	1991	2	Fillet				0.580
MDC	Lake of the Woods	largemouth bass	BOONE	1999	5	Fillet		1.1		0.307
MDC	Lake of the Woods	largemouth bass	BOONE	1999	2	Fillet		2.8		0.487
MDC	Lake of the Woods	channel catfish	BOONE	1999	5	Fillet		1.2	2	0.070
MDC	Lake of the Woods (KC)	channel catfish	JACKSON	1996	1	Fillet		1.2	1	0.041
MDC	Lake of the Woods (KC)	channel catfish	JACKSON	1996	1	Fillet		0.9	1	0.054
MDC	Lake of the Woods (KC)	channel catfish	JACKSON	1996	1	Fillet		1.4	1	0.029
MDC	Lake of the Woods (KC)	channel catfish	JACKSON	1996	1	Fillet		1.2	1	0.040
MDC	Lake of the Woods (KC)	channel catfish	JACKSON	1995	6	Fillet		1	2	0.054
MDC	Lake of the Woods (KC)	channel catfish	JACKSON	1996	1	Fillet		1.5	1	0.067
MDC	Lake of the Woods (KC)	channel catfish	JACKSON	1995	6	Fillet		1	5	0.056
MDC	Lake of the Woods (KC)	largemouth bass	JACKSON	1995	10	Fillet		0.7	1	0.318
MDC	Lake of the Woods (KC)	channel catfish	JACKSON	1996	1	Fillet		1	1	0.039
MDC	Lake of the Woods (KC)	channel catfish	JACKSON	1996	1	Fillet		1.2	2	0.029
MDC	Lake of the Woods (KC)	channel catfish	JACKSON	1996	1	Fillet		0.8	1	0.057
MDC	Lake of the Woods (KC)	channel catfish	JACKSON	1996	1	Fillet		0.5	1	0.084
MDC	Lake of the Woods (KC)	channel catfish	JACKSON	1996	1	Fillet		0.9	1	0.026
MDC	Lake of the Woods (KC)	channel catfish	JACKSON	1996	1	Fillet		1.1	1	0.034
MDC	Lake of the Woods (KC)	channel catfish	JACKSON	1996	1	Fillet		1.1	1	0.062
MDC	Lake of the Woods (KC)	channel catfish	JACKSON	1996	1	Fillet		1.2	1	0.048
MDC	Lake of the Woods (KC)	channel catfish	JACKSON	1996	1	Fillet		1.1	2	0.026
MDC	Lake of the Woods (KC)	channel catfish	JACKSON	1996	1	Fillet		1.3	1	0.035
MDC	Lake of the Woods (KC)	channel catfish	JACKSON	1996	1	Fillet		1	1	0.041
MDC	Lake of the Woods (KC)	channel catfish	JACKSON	1996	1	Fillet		1.8	2	0.031
MDC	Lake of the Woods (KC)	channel catfish	JACKSON	1996	1	Fillet		1	3	0.071
MDC	Lake of the Woods (KC)	channel catfish	JACKSON	1996	1	Fillet		1.1	2	0.026

APPENDIX B

MDNR Mercury in Fish Database

Organization	Site Name	SPECIES	COUNTY	Year	No. Samples	Preparation Method	Average Length (in)	Weight (lbs)	FAT (%)	MERCURY (ppm)
MDC	Lake of the Woods (KC)	channel catfish	JACKSON	1996	1	Fillet		1	0	0.041
MDC	Lake of the Woods (KC)	largemouth bass	JACKSON	1987	5	Fillet		1.1	0	0.330
MDC	Lake of the Woods (KC)	channel catfish	JACKSON	1996	1	Fillet		1.4	1	0.057
MDC	Lake Tapawingo	largemouth bass	JACKSON	1987	5	Fillet		1.1	0	0.140
MDC	Lakewood Lake	largemouth bass	JACKSON	1986	5	Fillet		1.2		0.300
MDC	Lamine R. @ I-70	white bass	COOPER	1999	12	Fillet		1.6		0.119
MDC	Lamine R. @ I-70	flathead catfish	COOPER	1999	3	Fillet		3.2	2	0.165
MDC	Lamine R. @ I-70	largemouth bass	COOPER	2000	1	Fillet				0.301
MDC	Lamine R. @ I-70	flathead catfish	COOPER	2002	6	Fillet		1.4		0.177
MDC	Lamine R. @ I-70	channel catfish	COOPER	2002	5	Fillet		1.5		0.225
EPA/MDNR	Lamine R. nr. Blackwater	carp	COOPER	1987	4	Whole Fish		2.5	3	0.025
EPA/MDNR	Lamine R. nr. Blackwater	carp	COOPER	1988	3	Whole Fish		3.2	7	0.130
MDC	LONGVIEW RES.	largemouth bass	JACKSON	1999	15	Fillet		2.2		0.335
MDC	LONGVIEW RES.	channel catfish	JACKSON	1990	5	Fillet		0.8		0.017
MDC	LONGVIEW RES.	carp	JACKSON	1990	5	Fillet		1.6		0.016
MDC	LONGVIEW RES. UPPER	largemouth bass	JACKSON	1987	5	Fillet		1	0	0.570
R	Missouri R. @ Boonville	channel catfish	COOPER	1987	5	Fillet		2	7	LT 0.020
EPA/MDNR	Missouri R. @ Lexington	carp	LAFAYETTE	1985	5	Whole Fish		2.2		0.050
EPA/MDNR	Missouri R. @ Lexington	carp	LAFAYETTE	1985	5	Whole Fish		2.3	5	0.080
USEPA	Missouri R. @ Lexington	carp	LAFAYETTE	1981	3	Whole Fish			8	0.010
USEPA	Missouri R. @ Lexington	carp	LAFAYETTE	1981	5	Whole Fish			4	0.040
EPA/MDNR	Missouri R. @ Lexington	carp	LAFAYETTE	1984	5	Whole Fish		2	6	0.040
MDC	Missouri R. @ Miami	shovelnose sturgeon	SALINE	2004	5	Fillet		1.4	3	0.097
MDC	Missouri R. @ Miami	shovelnose sturgeon	SALINE	2004	5	Fillet		1.2	2	0.101

APPENDIX B

MDNR Mercury in Fish Database

Organization	Site Name	SPECIES	COUNTY	Year	No. Samples	Preparation Method	Average Length (in)	Weight (lbs)	FAT (%)	MERCURY (ppm)
MDC	Missouri R. @ Miami	shovelnose sturgeon	SALINE	2004	5	Fillet		1.4	3	0.084
MDC	Missouri R. @ Napoleon	shovelnose sturgeon	LAFAYETTE	2004	15	Fillet		1.8	4	0.102
MDC	Missouri R. @ Napoleon	shovelnose sturgeon	LAFAYETTE	2004	6	E		1.9	37	0.015
EPA/MDNR	Missouri R. bl. Blue R.	carp	CLAY	1988	4	Whole Fish		5.2	8	0.131
EPA/MDNR	Missouri R. bl. Blue R.	carp	CLAY	1989	5	Whole Fish		5.7	10	0.079
EPA/MDNR	Missouri R. bl. Blue R.	carp	CLAY	1995	5	Whole Fish				0.346
EPA/MDNR	Missouri R. bl. Blue R.	carp	CLAY	1997	3	Whole Fish		5.5		0.048
EPA/MDNR	Missouri R. bl. Blue R.	carp	CLAY	1999	5	Whole Fish		5.59		0.045
EPA/MDNR	Missouri R. bl. Blue R.	carp	CLAY	1997	4	Whole Fish		5.4		0.083
EPA/MDNR	Missouri R. bl. Blue R.	carp	CLAY	1999	5	Whole Fish		5.68		0.044
EPA/MDNR	Missouri R. bl. Blue R.	carp	CLAY	2001	5	Whole Fish		4.9		0.038
MDC	Missouri R. nr. Columbia	carp	BOONE	2002	26	Fillet		3.2	3	0.081
MDC	Missouri R. nr. Columbia	buffalo	BOONE	1996	10	Fillet		3.7	4	0.430
MDC	Missouri R. nr. Columbia	carp	BOONE	1996	17	Fillet		6.5	8	0.100
MDC	Missouri R. nr. Columbia	carp	BOONE	1996	14	Fillet		5.8	8	0.123
MDC	Missouri R. nr. Columbia	channel catfish	BOONE	1996	25	Fillet		1.8	6	0.157
MDC	Missouri R. nr. Columbia	shovelnose sturgeon	BOONE	1996	5	E			14	0.016
MDC	Missouri R. nr. Columbia	buffalo	BOONE	1996	15	Fillet		5	9	0.251
MDC	Missouri R. nr. Columbia	shovelnose sturgeon	BOONE	1996	25	Fillet		2.4	6	0.115
MDC	Missouri R. nr. Columbia	flathead catfish	BOONE	1998	15	Fillet		1.6	1	0.200
MDC	Missouri R. nr. Columbia	flathead catfish	BOONE	2002	17	Fillet		1.9		0.067
MDC	Missouri R. nr. Columbia	carp	BOONE	1996	14	Fillet		5.8	6	0.134
MDC	Missouri R. nr. Malta Bend	carp	SALINE	1990	5	Fillet				0.011

APPENDIX B

MDNR Mercury in Fish Database

Organization	Site Name	SPECIES	COUNTY	Year	No. Samples	Preparation Method	Average Length (in)	Weight (lbs)	FAT (%)	MERCURY (ppm)
MDC	Missouri R. nr. Shoal Cr.	channel catfish	CLAY	1990	5	Fillet		1.4		0.079
MDC	Missouri R. nr. Shoal Cr.	flathead catfish	CLAY	1998	15	Fillet		3.2		0.280
MDC	Missouri R. nr. Shoal Cr.	carp	CLAY	1990	5	Fillet		3.4		0.016
MDC	Missouri R. nr. Shoal Cr.	carp	CLAY	1992	1	Fillet				0.091
MDC	Missouri R. nr. Shoal Cr.	carp	CLAY	1994	18	Fillet		4.3	2	0.129
MDC	Missouri R. nr. Shoal Cr.	carp	CLAY	1994	18	Fillet		4.3	5	0.126
EPA/MDNR	Missouri R.@St. Joseph, Mo.	carp	BUCHANAN	1986	5	Whole Fish		2.3	5	0.077
EPA/MDNR	Missouri R.@St. Joseph, Mo.	carp	BUCHANAN	2001	5	Whole Fish		4.7		0.075
EPA/MDNR	Missouri R.@St. Joseph, Mo.	carp	BUCHANAN	1987	4	Whole Fish		2.8	12	0.016
MDC	Missouri R.@St. Joseph, Mo.	carp	BUCHANAN	2000	10	Fillet		3.6	5	0.059
MDC	Missouri R.@St. Joseph, Mo.	carp	BUCHANAN	2000	15	Fillet		3.5	4	0.068
EPA/MDNR	Missouri R.@St. Joseph, Mo.	carp	BUCHANAN	1983	5	Whole Fish		4		ND
EPA/MDNR	Missouri R.@St. Joseph, Mo.	carp	BUCHANAN	1982	5	Whole Fish		3	10	0.020
EPA/MDNR	Missouri R.@St. Joseph, Mo.	carp	BUCHANAN	1995	5	Whole Fish				0.312
MDC	Missouri R.@St. Joseph, Mo.	flathead catfish	BUCHANAN	2002	13	Fillet		2.2		0.128
EPA/MDNR	Missouri R.@St. Joseph, Mo.	carp	BUCHANAN	1993	3	Whole Fish		6.2		0.100
EPA/MDNR	Missouri R.@St. Joseph, Mo.	carp	BUCHANAN	1980	5	Whole Fish				TR
EPA/MDNR	Missouri R.@St. Joseph, Mo.	carp	BUCHANAN	1981	5	Whole Fish				0.010
EPA/MDNR	Missouri R.@St. Joseph, Mo.	carp	BUCHANAN	1992		Whole Fish			5	0.083
EPA/MDNR	Missouri R.@St. Joseph, Mo.	carp	BUCHANAN	1987	4	Whole Fish		2.4	8	0.018
EPA/MDNR	Missouri R.@St. Joseph, Mo.	carp	BUCHANAN	1986	5	Whole Fish		2.4	6	0.031
EPA/MDNR	Missouri R.@St. Joseph, Mo.	carp	BUCHANAN	1990	5	Whole Fish			8	0.069
MDC	Missouri R.@St. Joseph, Mo.	channel catfish	BUCHANAN	1997	15	Fillet		1.3	2	0.094
EPA/MDNR	Missouri R.@St. Joseph, Mo.	carp	BUCHANAN	1997	4	Whole Fish		3.7		0.083
EPA/MDNR	Missouri R.@St. Joseph, Mo.	carp	BUCHANAN	1988	5	Whole Fish		3.2	7	0.076
MDC	Missouri R.@St. Joseph, Mo.	shovelnose sturgeon	BUCHANAN	1996		E			18	0.011

APPENDIX B

MDNR Mercury in Fish Database

Organization	Site Name	SPECIES	COUNTY	Year	No. Samples	Preparation Method	Average Length (in)	Weight (lbs)	FAT (%)	MERCURY (ppm)
MDC	Missouri R.@St. Joseph, Mo.	shovelnose sturgeon	BUCHANAN	1996	13	Fillet		1	4	0.165
EPA/MDNR	Missouri R.@St. Joseph, Mo.	carp	BUCHANAN	1989	4	Whole Fish		3.2	5	0.059
MDC	Missouri R.@St. Joseph, Mo.	shovelnose sturgeon	BUCHANAN	1996	7	Fillet		1.9	4	0.115
MDC	Missouri R.@St. Joseph, Mo.	channel catfish	BUCHANAN	1996	25	Fillet		0.8	2	0.122
MDC	Missouri R.@St. Joseph, Mo.	carp	BUCHANAN	1996	17	Fillet		2.8	4	0.165
EPA/MDNR	Missouri R.@St. Joseph, Mo.	carp	BUCHANAN	2001	5	Whole Fish		4.2		0.082
EPA/MDNR	Missouri R.@St. Joseph, Mo.	carp	BUCHANAN	1984	7	Whole Fish		2	10	0.020
EPA/MDNR	Missouri R.@St. Joseph, Mo.	carp	BUCHANAN	1999	5	Whole Fish		3.36		0.026
MDC	Missouri R.@St. Joseph, Mo.	buffalo	BUCHANAN	1996	11	Fillet		5	6	0.310
MDC	Missouri R.@St. Joseph, Mo.	buffalo	BUCHANAN	1996	6	Fillet		7.7	8	0.261
MDC	Missouri R.@St. Joseph, Mo.	carp	BUCHANAN	1996	28	Fillet		3.8	4	0.155
EPA/MDNR	MO R. KC	carp		1983	6	Whole Fish		1.7	5	0.010
EPA/MDNR	MO R. KC	carp		1985	4	Whole Fish		3.2	11	0.040
EPA/MDNR	MO R. KC	carp		1986	5	Whole Fish		2.7	6	0.035
EPA/MDNR	MO R. KC	carp		1986	5	Whole Fish		2.9	6	0.016
USGS	MO R. KC	drum		1988	5	Whole Fish		1.2		0.040
EPA/MDNR	MO R. KC	carp		1981	5	Whole Fish				0.030
USGS	MO R. KC	channel catfish		1988	5	Whole Fish		1.1		0.070
EPA/MDNR	MO R. KC	carp		1985	3	Whole Fish		3.3	11	0.050
USGS	MO R. KC	carp		1988	5	Whole Fish		2.4		0.070
USEPA	MO R. KC	carp		1981	6	Whole Fish			6	0.050
USEPA	MO R. KC	carp		1981	5	Whole Fish			4	0.020
EPA/MDNR	MO R. KC	carp		1984	5	Whole Fish		4	10	0.030
EPA/MDNR	MO R. KC	carp		1987	3	Whole Fish		3.8	4	0.034
EPA/MDNR	MO R. KC	carp		1987	3	Whole Fish		3.7	6	0.010

APPENDIX B

MDNR Mercury in Fish Database

Organization	Site Name	SPECIES	COUNTY	Year	No. Samples	Preparation Method	Average Length (in)	Weight (lbs)	FAT (%)	MERCURY (ppm)
MDC	Moberly (Rothwell) Park Lake	channel catfish	RANDOLPH	1993	1	Fillet		9.4	14	0.230
MDC	Muddy Cr. 3 mi. NW of Sedalia	largemouth bass	PETTIS	2001	1	Fillet		0.6		0.240
MDC	Muddy Cr. 3 mi. NW of Sedalia	largemouth bass	PETTIS	1998	5	Fillet		0.9		0.300
MDC	Muskrat Lake	largemouth bass	BUCHANAN	1986	5	Fillet		2.6		1.000
MDC	Muskrat Lake	largemouth bass	BUCHANAN	1986	5	Fillet		0.6		0.360
MDC	Nell Lake	largemouth bass	JACKSON	1987	5	Fillet		1.2	0	0.194
MDC	PASTROVICH HAULING	channel catfish	JACKSON	1995	10	Fillet		1	5	0.027
MDC	Perche Cr. @ McBaine	carp	BOONE	1992	1	Fillet				0.156
MDC	Perche Cr. @ McBaine	carp	BOONE	1992	1	Fillet				0.157
MDC	Perche Cr. @ McBaine	carp	BOONE	1992	1	Fillet				0.129
MDC	Plover Lake	largemouth bass	JACKSON	1987	5	Fillet		1.3	0	0.206
MDC	Prairie Lee Lake	channel catfish	JACKSON	1993	15	Fillet		1.1	2	0.068
MDC	Prairie Lee Lake	channel catfish	JACKSON	1992	1	Fillet				0.350
MDC	Prairie Lee Lake	carp	JACKSON	1992	1	Fillet				0.184
MDC	Prairie Lee Lake	largemouth bass	JACKSON	1987	5	Fillet		0.9	0	0.224
MDC	Smithville L. nr. Trimble	largemouth bass	CLAY	1987	5	Fillet		1	1	0.224
MDC	Smithville L., Camp Br. Arm	largemouth bass	CLAY	1987	5	Fillet		1.2	0	0.224
MDC	SMITHVILLE RES	largemouth bass	CLAY	2000	6	Fillet		0.8		0.188
MDC	SMITHVILLE RES	largemouth bass		1994	5	Fillet		2.8	1	0.430
MDC	SMITHVILLE RES	carp		1994	15	Fillet		2.5	1	0.205
MDC	SMITHVILLE RES	carp		1994	15	Fillet		3.2	1	0.250
MDC	SMITHVILLE RES	carp		1994	15	Fillet		2.3	1	0.250
MDC	SMITHVILLE RES.	carp	CLAY	1995	45	Fillet		2.6	2	0.191
MDC	SMITHVILLE RES.	largemouth bass	CLAY	1997	15	Fillet		1.5		0.330
MDC	SMITHVILLE RES.	carp	CLAY	1996	45	Fillet		2.6	2	0.180
MDC	SMITHVILLE RES.	carp		1993	15	Fillet		2.6		0.180
MDC	SMITHVILLE RES.	carp		1993	15	Fillet		3.4	1	0.150

APPENDIX B

MDNR Mercury in Fish Database

Organization	Site Name	SPECIES	COUNTY	Year	No. Samples	Preparation Method	Average Length (in)	Weight (lbs)	FAT (%)	MERCURY (ppm)
MDC	SMITHVILLE RES.	carp		1992	1	Fillet				0.193
MDC	SMITHVILLE RES.	carp		1992	1	Fillet				0.208
MDC	SMITHVILLE RES.	carp		1992	1	Fillet				0.187
MDC	SMITHVILLE RES.	carp		1993	15	Fillet		2.6	2	0.160
MDC	Stephens Lake	largemouth bass	BOONE	2001	5	Fillet		1.4		0.145
MDC	Stephens Lake	carp	BOONE	2001	1	Fillet		16.5	27	0.013
MDC	Sugar Lake	channel catfish	BUCHANAN	2002	15	Fillet		3.2		0.016
MDC	T HILL RES WW ARM	largemouth bass	RANDOLPH	1985	5	Fillet		2.5		0.150
MDC	T HILL RESERVOIR	largemouth bass	RANDLOPH	1986	5	Fillet		1.8		0.092
MDC	T HILL RESERVOIR	largemouth bass	RANDOLPH	1997	15	Fillet		2.2		0.114
EPA/MDNR	T HILL RESERVOIR	carp		1987	1	Whole Fish		2.4	2	0.046
MDC	T HILL RESERVOIR	largemouth bass		1994	1	Fillet				0.074
MDC	The Lagoon (Swope Park)	largemouth bass	JACKSON	1986	5	Fillet		0.9		0.140
MDC	U HULEN LK COLUMBI	largemouth bass	BOONE	1987	5	Fillet		2.6	0	1.000
MDC	U HULEN LK. LOWER	largemouth bass	BOONE	1986	3	Whole Fish				0.120
USEPA	Unnamed pond N of Billingsville	largemouth bass	COOPER	2003	5	Fillet	11.2	0.6	0	0.276
USEPA	Unnamed pond N of Billingsville	largemouth bass	COOPER	2003	5	Fillet	10.9	0.6	0	0.233
MDC	V LANDGHM LK COLUM	largemouth bass	BOONE	1987	5	Fillet		1.1	0	0.300
MDC	WALLACE FISH FARM	channel catfish	JACKSON	1995	10	Fillet		1.2	2	0.010
MDC	Wildwood Lake	largemouth bass	JACKSON	1986	5	Fillet		1		0.230
MDC	Zano Lake	largemouth bass	CLAY	1987	3	Fillet		1.7	0	0.340