



**DEPARTMENT OF FISH AND GAME
FISH AND WILDLIFE
WATER POLLUTION CONTROL LABORATORY**

2005 NIMBUS ROAD
RANCHO CORDOVA, CA 95670
PHONE (916) 358-2858 ATSS 8-434-2858 FAX (916) 985-4301

LABORATORY REPORT

Name:	Linda Prendergast	Lab Number:	L-439_542-09*
Agency:		Other Number:	
Address:	825 NE Multnomah, Suite 1500	Date Sampled:	07/14_8/25/09
City:	Portland, OR 97232	Date Received:	07/15_8/27/09
		Date Completed:	09/18/09
		Index-PCA Code:	Pacific Corp. Contract

RE: Microcystins analysis

RESULTS OF CHEMICAL ANALYSIS:

Three water samples, twenty-three tissue samples and two liver composites were extracted and analyzed for microcystins by LC-MSMS (QqQ). Results of the analyses are attached.

- *L-439-09, 1 water
- L-471-09, 1 water
- L-490-09, 23 yellow perch and 2 liver composites
- L-542-09, 1 water

- NA Not Applicable
- ND Not Detected
- MDL Method Detection Limit
- RL Reporting Limit
- MBLK Method Blank
- LCS Laboratory Control Spike
- LCSD Laboratory Control Spike Duplicate
- MS Matrix Spike
- MSD Matrix Spike Duplicate

Cost of Analysis: To be invoiced.

CC: Rick Carlson, Bureau of Reclamation, 6600 Washburn Way, Klamath Falls, OR, 97603

Abdou Mekebri 09/22/09
Abdou Mekebri, Ph.D. Date
Lead Pesticide Chemist

David Crane 09/22/09
David Crane Date
Laboratory Director
For Dave Crane

**U.S. Bureau of Reclamations
Klamath Basin
L-439, -471, -490, -542-09**

WPCL Lab#	Estimated MDL	Reporting Limit	L-439-09-1	L-439-09-1Dup	L-471-09-1	L-542-09-1	L-542-09-1Dup
Sample Identification			2009AIP-018	2009AIP-018	2009AIP-024	2009AIP-038	2009AIP-038
Date Collected			14/Jul/2009	14/Jul/2009	28/Jul/2009	25/Aug/2009	25/Aug/2009
Time Collected			8:30	8:30	7:40	7:05	7:05
Date Received			15/Jul/2009	15/Jul/2009	30/Jul/2009	27/Aug/2009	27/Aug/2009
Date Extracted			16/Jul/2009	16/Jul/2009	04/Aug/2009	27/Aug/2009	27/Aug/2009
Date Analyzed			23/Aug/2009	23/Aug/2009	23/Aug/2009	27/Aug/2009	27/Aug/2009
Matrix			water	water	water	water	water
Biotoxin Analytes	ppb	ppb	ppb (µg/L)	ppb (µg/L)	ppb (µg/L)	ppb (µg/L)	ppb (µg/L)
MC-RR	0.500	1.00	ND	ND	ND	ND	ND
MC-Desmethyl-RR*	0.500	1.00	ND	ND	ND	ND	ND
MC-LR	0.500	1.00	ND	ND	1.08	1.35	1.37
MC-Desmethyl-LR	0.500	1.00	ND	ND	ND	ND	ND
MC-YR	0.500	1.00	ND	ND	ND	ND	ND
MC-LA	0.500	1.00	ND	ND	1.38	2.73	2.85
MC-LW	0.500	1.00	ND	ND	ND	ND	ND
MC-LF	0.500	1.00	ND	ND	ND	ND	ND
MC-LY	0.500	1.00	ND	ND	ND	ND	ND
Anatoxin A	2.00	5.00	ND	ND	ND	ND	ND
Domoic acid	1.00	2.00	ND	ND	ND	ND	ND
Okadaic acid	0.500	1.00	ND	ND	ND	ND	ND
* Desmethyl-RR quantified as parent analog compound.							

U.S. Bureau of Reclamations
Klamath Basin
L-439, -471, -490, -542-09

WPCL Lab#	Estimated MDL	Reporting Limit	Quality Control Results	L-431-09-MBLK	L-447-09-MBLK	L-538-09-MBLK	L-431-09-LCS	
Sample Identification								
Date Collected								
Time Collected								
Date Received								
Date Extracted					13/Jul/2009	04/Aug/2009	26/Aug/2009	13/Jul/2009
Date Analyzed					23/Aug/2009	23/Aug/2009	27/Aug/2009	23/Aug/2009
Matrix					water	water	water	water
Biotoxin Analytes	ppb	ppb			ppb (µg/L)	ppb (µg/L)	ppb (µg/L)	% Recovery
MC-RR	0.500	1.00			ND	ND	ND	107
MC-Desmethyl-RR*	0.500	1.00			ND	ND	ND	NA
MC-LR	0.500	1.00			ND	ND	ND	103
MC-Desmethyl-LR	0.500	1.00			ND	ND	ND	NA
MC-YR	0.500	1.00		ND	ND	ND	93.7	
MC-LA	0.500	1.00		ND	ND	ND	82.7	
MC-LW	0.500	1.00		ND	ND	ND	NA	
MC-LF	0.500	1.00		ND	ND	ND	NA	
MC-LY	0.500	1.00		ND	ND	ND	113	
Anatoxin A	2.00	5.00		ND	ND	ND	84.8	
Domoic acid	1.00	2.00		ND	ND	ND	NA	
Okadaic acid	0.500	1.00		ND	ND	ND	102	
* Desmethyl-RR quantified as parent analog compound.								

U.S. Bureau of Reclamations
Klamath Basin
L-439, -471, -490, -542-09

WPCL Lab#	Estimated MDL	Reporting Limit	L-447-09-LCS	L-447-09-LCSD	L-538-09-LCS	L-431-09-2MS	L-431-09-2MSD
Sample Identification						IG070909-IG	IG070909-IG
Date Collected						09/Jul/2009	09/Jul/2009
Time Collected						12:48	12:48
Date Received						10/Jul/2009	10/Jul/2009
Date Extracted			04/Aug/2009	04/Aug/2009	26/Aug/2009	13/Jul/2009	13/Jul/2009
Date Analyzed			23/Aug/2009	23/Aug/2009	27/Aug/2009	23/Aug/2009	23/Aug/2009
Matrix			water	water	water	water	water
Biotoxin Analytes	ppb	ppb	% Recovery	% Recovery	% Recovery	% Recovery	% Recovery
MC-RR	0.500	1.00	86.8	88.5	117	109	111
MC-Desmethyl-RR*	0.500	1.00	NA	NA	NA	NA	NA
MC-LR	0.500	1.00	87.1	85.3	92.5	99.2	101
MC-Desmethyl-LR	0.500	1.00	NA	NA	NA	NA	NA
MC-YR	0.500	1.00	90.6	97.0	86.7	100	105
MC-LA	0.500	1.00	101	106	74.6	80.3	81.2
MC-LW	0.500	1.00	NA	NA	NA	NA	NA
MC-LF	0.500	1.00	NA	NA	NA	NA	NA
MC-LY	0.500	1.00	86.3	95.0	77.5	93.6	104
Anatoxin A	2.00	5.00	73.0	75.0	68.0	85.2	88.4
Domoic acid	1.00	2.00	NA	NA	NA	NA	NA
Okadaic acid	0.500	1.00	117	112	NA	96.4	111
* Desmethyl-RR quantified as parent analog compound.							

U.S. Bureau of Reclamations
Klamath Basin
L-439, -471, -490, -542-09

WPCL Lab#	Estimated MDL	Reporting Limit	L-456-09-2MS	L-467-09-2MS
Sample Identification			SV072209-OC	KR9033
Date Collected			22/Jul/2009	21/Jul/2009
Time Collected			11:56	17:10
Date Received			23/Jul/2009	28/Jul/2009
Date Extracted			04/Aug/2009	04/Aug/2009
Date Analyzed			23/Aug/2009	23/Aug/2009
Matrix			water	water
Biotoxin Analytes	ppb	ppb	% Recovery	% Recovery
MC-RR	0.500	1.00	93.5	101
MC-Desmethyl-RR*	0.500	1.00	NA	NA
MC-LR	0.500	1.00	89.6	93.7
MC-Desmethyl-LR	0.500	1.00	NA	NA
MC-YR	0.500	1.00	92.0	91.4
MC-LA	0.500	1.00	107	82.7
MC-LW	0.500	1.00	NA	NA
MC-LF	0.500	1.00	NA	NA
MC-LY	0.500	1.00	90.1	94.0
Anatoxin A	2.00	5.00	81.2	77.1
Domoic acid	1.00	2.00	NA	NA
Okadaic acid	0.500	1.00	101	81.3
* Desmethyl-RR quantified as parent analog compound.				

AIP #12 monitoring
L-490-09

WPCL Lab#	Estimated MDL	Reporting Limit	L-490-09-1	L-490-09-2	L-490-09-3	L-490-09-4	L-490-09-5
Sample Identification			Copco Res. #1	Copco Res. #2	Copco Res. #3	Copco Res. #4	Copco Res. #5
Date Collected			03/Aug/2009	03/Aug/2009	03/Aug/2009	03/Aug/2009	03/Aug/2009
Time Collected							
Date Received			05/Aug/2009	05/Aug/2009	05/Aug/2009	05/Aug/2009	05/Aug/2009
Date Extracted			26/Aug/2009	26/Aug/2009	26/Aug/2009	26/Aug/2009	26/Aug/2009
Date Analyzed			27/Aug/2009	27/Aug/2009	27/Aug/2009	27/Aug/2009	27/Aug/2009
Matrix			yellow perch	yellow perch	yellow perch	yellow perch	yellow perch
			fresh weight	fresh weight	fresh weight	fresh weight	fresh weight
Biotoxin Analytes	ppb	ppb	ppb (ng/g)	ppb (ng/g)	ppb (ng/g)	ppb (ng/g)	ppb (ng/g)
MC-RR	0.500	1.00	ND	ND	ND	ND	ND
MC-Desmethyl-RR*	0.500	1.00	ND	ND	ND	ND	ND
MC-LR	0.500	1.00	ND	ND	ND	ND	ND
MC-Desmethyl-LR	0.500	1.00	ND	ND	ND	ND	ND
MC-YR	0.500	1.00	ND	ND	ND	ND	ND
MC-LA	0.500	1.00	ND	ND	ND	ND	ND
MC-LW	0.500	1.00	ND	ND	ND	ND	ND
MC-LF	0.500	1.00	ND	ND	ND	ND	ND
MC-LY	0.500	1.00	ND	ND	ND	ND	ND
Anatoxin A	5.00	10.0	ND	ND	ND	ND	ND
Domoic acid	2.00	5.00	ND	ND	ND	ND	ND
Okadaic acid	1.00	2.00	ND	ND	ND	ND	ND
* Desmethyl-RR quantified as parent analog compound.							

**AIP #12 monitoring
L-490-09**

WPCL Lab#	Estimated MDL	Reporting Limit	L-490-09-6	L-490-09-7	L-490-09-8	L-490-09-9	L-490-09-9Dup
Sample Identification			Copco Res. #6	Copco Res. #7	Copco Res. #8	Copco Res. #9	Copco Res. #9
Date Collected			03/Aug/2009	03/Aug/2009	03/Aug/2009	03/Aug/2009	03/Aug/2009
Time Collected							
Date Received			05/Aug/2009	05/Aug/2009	05/Aug/2009	05/Aug/2009	05/Aug/2009
Date Extracted			26/Aug/2009	26/Aug/2009	26/Aug/2009	26/Aug/2009	26/Aug/2009
Date Analyzed			27/Aug/2009	27/Aug/2009	27/Aug/2009	27/Aug/2009	27/Aug/2009
Matrix			yellow perch	yellow perch	yellow perch	yellow perch	yellow perch
			fresh weight	fresh weight	fresh weight	fresh weight	fresh weight
Biotoxin Analytes	ppb	ppb	ppb (ng/g)	ppb (ng/g)	ppb (ng/g)	ppb (ng/g)	ppb (ng/g)
MC-RR	0.500	1.00	ND	ND	ND	ND	ND
MC-Desmethyl-RR*	0.500	1.00	ND	ND	ND	ND	ND
MC-LR	0.500	1.00	ND	ND	ND	ND	ND
MC-Desmethyl-LR	0.500	1.00	ND	ND	ND	ND	ND
MC-YR	0.500	1.00	ND	ND	ND	ND	ND
MC-LA	0.500	1.00	ND	ND	ND	ND	ND
MC-LW	0.500	1.00	ND	ND	ND	ND	ND
MC-LF	0.500	1.00	ND	ND	ND	ND	ND
MC-LY	0.500	1.00	ND	ND	ND	ND	ND
Anatoxin A	5.00	10.0	ND	ND	ND	ND	ND
Domoic acid	2.00	5.00	ND	ND	ND	ND	ND
Okadaic acid	1.00	2.00	ND	ND	ND	ND	ND
* Desmethyl-RR quantified as parent analog compound.							

**AIP #12 monitoring
L-490-09**

WPCL Lab#	Estimated MDL	Reporting Limit	L-490-09-10	L-490-09-11	L-490-09-12	L-490-09-13	L-490-09-14
Sample Identification			Copco Res. #10	Copco Res. #11	Iron Gate Res. #1	Iron Gate Res. #2	Iron Gate Res. #3
Date Collected			03/Aug/2009	03/Aug/2009	03/Aug/2009	03/Aug/2009	03/Aug/2009
Time Collected							
Date Received			05/Aug/2009	05/Aug/2009	05/Aug/2009	05/Aug/2009	05/Aug/2009
Date Extracted			26/Aug/2009	26/Aug/2009	26/Aug/2009	26/Aug/2009	26/Aug/2009
Date Analyzed			27/Aug/2009	27/Aug/2009	27/Aug/2009	27/Aug/2009	27/Aug/2009
Matrix			yellow perch	yellow perch	yellow perch	yellow perch	yellow perch
			fresh weight	fresh weight	fresh weight	fresh weight	fresh weight
Biotoxin Analytes	ppb	ppb	ppb (ng/g)	ppb (ng/g)	ppb (ng/g)	ppb (ng/g)	ppb (ng/g)
MC-RR	0.500	1.00	ND	ND	ND	ND	ND
MC-Desmethyl-RR*	0.500	1.00	ND	ND	ND	ND	ND
MC-LR	0.500	1.00	ND	ND	ND	ND	ND
MC-Desmethyl-LR	0.500	1.00	ND	ND	ND	ND	ND
MC-YR	0.500	1.00	ND	ND	ND	ND	ND
MC-LA	0.500	1.00	ND	ND	ND	ND	ND
MC-LW	0.500	1.00	ND	ND	ND	ND	ND
MC-LF	0.500	1.00	ND	ND	ND	ND	ND
MC-LY	0.500	1.00	ND	ND	ND	ND	ND
Anatoxin A	5.00	10.0	ND	ND	ND	ND	ND
Domoic acid	2.00	5.00	ND	ND	ND	ND	ND
Okadaic acid	1.00	2.00	ND	ND	ND	ND	ND
* Desmethyl-RR quantified as parent analog compound.							

**AIP #12 monitoring
L-490-09**

WPCL Lab#	Estimated MDL	Reporting Limit	L-490-09-15	L-490-09-16	L-490-09-17	L-490-09-18	L-490-09-19
Sample Identification			Iron Gate Res. #4	Iron Gate Res. #5	Iron Gate Res. #6	Iron Gate Res. #7	Iron Gate Res. #8
Date Collected			03/Aug/2009	03/Aug/2009	03/Aug/2009	03/Aug/2009	03/Aug/2009
Time Collected							
Date Received			05/Aug/2009	05/Aug/2009	05/Aug/2009	05/Aug/2009	05/Aug/2009
Date Extracted			26/Aug/2009	26/Aug/2009	26/Aug/2009	26/Aug/2009	26/Aug/2009
Date Analyzed			27/Aug/2009	27/Aug/2009	27/Aug/2009	27/Aug/2009	27/Aug/2009
Matrix			yellow perch fresh weight	yellow perch fresh weight	yellow perch fresh weight	yellow perch fresh weight	yellow perch fresh weight
Biotoxin Analytes	ppb	ppb	ppb (ng/g)	ppb (ng/g)	ppb (ng/g)	ppb (ng/g)	ppb (ng/g)
MC-RR	0.500	1.00	ND	ND	ND	ND	ND
MC-Desmethyl-RR*	0.500	1.00	ND	ND	ND	ND	ND
MC-LR	0.500	1.00	ND	ND	ND	ND	ND
MC-Desmethyl-LR	0.500	1.00	ND	ND	ND	ND	ND
MC-YR	0.500	1.00	ND	ND	ND	ND	ND
MC-LA	0.500	1.00	ND	ND	ND	ND	ND
MC-LW	0.500	1.00	ND	ND	ND	ND	ND
MC-LF	0.500	1.00	ND	ND	ND	ND	ND
MC-LY	0.500	1.00	ND	ND	ND	ND	ND
Anatoxin A	5.00	10.0	ND	ND	ND	ND	ND
Domoic acid	2.00	5.00	ND	ND	ND	ND	ND
Okadaic acid	1.00	2.00	ND	ND	ND	ND	ND
* Desmethyl-RR quantified as parent analog compound.							

AIP #12 monitoring
L-490-09

WPCL Lab#	Estimated MDL	Reporting Limit	L-490-09-20	L-490-09-21	L-490-09-22	L-490-09-23	L-490-09-24
Sample Identification			Iron Gate Res. #9	Iron Gate Res. #10	Iron Gate Res. #11	Iron Gate Res. #12	Copco Res.
Date Collected			03/Aug/2009	03/Aug/2009	03/Aug/2009	03/Aug/2009	03/Aug/2009
Time Collected							
Date Received			05/Aug/2009	05/Aug/2009	05/Aug/2009	05/Aug/2009	05/Aug/2009
Date Extracted			26/Aug/2009	26/Aug/2009	26/Aug/2009	26/Aug/2009	26/Aug/2009
Date Analyzed			27/Aug/2009	27/Aug/2009	27/Aug/2009	27/Aug/2009	27/Aug/2009
Matrix			yellow perch fresh weight	yellow perch fresh weight	yellow perch fresh weight	yellow perch fresh weight	liver composite fresh weight
Biotoxin Analytes	ppb	ppb	ppb (ng/g)	ppb (ng/g)	ppb (ng/g)	ppb (ng/g)	ppb (ng/g)
MC-RR	0.500	1.00	ND	ND	ND	ND	ND
MC-Desmethyl-RR*	0.500	1.00	ND	ND	ND	ND	ND
MC-LR	0.500	1.00	ND	ND	ND	ND	ND
MC-Desmethyl-LR	0.500	1.00	ND	ND	ND	ND	ND
MC-YR	0.500	1.00	ND	ND	ND	ND	ND
MC-LA	0.500	1.00	ND	ND	ND	ND	ND
MC-LW	0.500	1.00	ND	ND	ND	ND	ND
MC-LF	0.500	1.00	ND	ND	ND	ND	ND
MC-LY	0.500	1.00	ND	ND	ND	ND	ND
Anatoxin A	5.00	10.0	ND	ND	ND	ND	ND
Domoic acid	2.00	5.00	ND	ND	ND	ND	ND
Okadaic acid	1.00	2.00	ND	ND	ND	ND	ND
* Desmethyl-RR quantified as parent analog compound.							

**AIP #12 monitoring
L-490-09**

WPCL Lab#	Estimated MDL	Reporting Limit	L-490-09-25	Quality Control Results	L-490-09-MBLK	L-537-09-MBLK2	L-490-09-LCS	
Sample Identification			Iron Gate Res.					
Date Collected			03/Aug/2009					
Time Collected			NA					
Date Received			05/Aug/2009					
Date Extracted			26/Aug/2009			26/Aug/2009	26/Aug/2009	26/Aug/2009
Date Analyzed			27/Aug/2009			27/Aug/2009	27/Aug/2009	27/Aug/2009
Matrix			liver composite			tissue	tissue	tissue
			fresh weight			fresh weight	fresh weight	fresh weight
Biotoxin Analytes	ppb	ppb	ppb (ng/g)			ppb (ng/g)	ppb (ng/g)	% Recovery
MC-RR	0.500	1.00	ND			ND	ND	103
MC-Desmethyl-RR*	0.500	1.00	ND			ND	ND	NA
MC-LR	0.500	1.00	ND			ND	ND	103
MC-Desmethyl-LR	0.500	1.00	ND			ND	ND	NA
MC-YR	0.500	1.00	ND			ND	ND	65.6
MC-LA	0.500	1.00	ND		ND	ND	79.0	
MC-LW	0.500	1.00	ND		ND	ND	NA	
MC-LF	0.500	1.00	ND		ND	ND	NA	
MC-LY	0.500	1.00	ND		ND	ND	67.8	
Anatoxin A	5.00	10.0	ND		ND	ND	52.5	
Domoic acid	2.00	5.00	ND		ND	ND	NA	
Okadaic acid	1.00	2.00	ND		ND	ND	NA	

* Desmethyl-RR quantified as parent analog compound.

AIP #12 monitoring
L-490-09

WPCL Lab#	Estimated MDL	Reporting Limit	L-537-09-LCS2	L-490-09-6MS	L-490-09-6MSD	L-537-09-28MS	L-537-09-28MSD
Sample Identification				Copco Res. #6	Copco Res. #6	IB081909-1	IB081909-1
Date Collected				03/Aug/2009	03/Aug/2009	19/Aug/2009	19/Aug/2009
Time Collected						15:30	15:30
Date Received				05/Aug/2009	05/Aug/2009	21/Aug/2009	21/Aug/2009
Date Extracted			26/Aug/2009	26/Aug/2009	26/Aug/2009	26/Aug/2009	26/Aug/2009
Date Analyzed			27/Aug/2009	27/Aug/2009	27/Aug/2009	27/Aug/2009	27/Aug/2009
Matrix			tissue fresh weight	yellow perch fresh weight	yellow perch fresh weight	tissue fresh weight	tissue fresh weight
Biotoxin Analytes	ppb	ppb	% Recovery	% Recovery	% Recovery	ppb (ng/g)	ppb (ng/g)
MC-RR	0.500	1.00	101	67.3	81.7	83.5	89.0
MC-Desmethyl-RR*	0.500	1.00	NA	NA	NA	NA	NA
MC-LR	0.500	1.00	104	66.0	74.7	72.4	78.3
MC-Desmethyl-LR	0.500	1.00	NA	NA	NA	NA	NA
MC-YR	0.500	1.00	76.7	59.3	77.5	78.8	82.9
MC-LA	0.500	1.00	68.2	NA	NA	58.8	57.3
MC-LW	0.500	1.00	NA	NA	NA	NA	NA
MC-LF	0.500	1.00	NA	NA	NA	NA	NA
MC-LY	0.500	1.00	NA	59.2	73.9	NA	NA
Anatoxin A	5.00	10.0	111	55.9	59.5	119	115
Domoic acid	2.00	5.00	NA	NA	NA	NA	NA
Okadaic acid	1.00	2.00	NA	NA	NA	NA	NA
* Desmethyl-RR quantified as parent analog compound.							



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 2005 NIMBUS ROAD
 RANCHO CORDOVA, CA 95670
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COPY

LABORATORY REPORT

Name:	Linda Prendergast	Lab Number:	L-593_611-09*
Agency:		Other Number:	
Address:	825 NE Multnomah, Suite 1500	Date Sampled:	09/9_22/09
City:	Portland, OR 97232	Date Received:	09/17_25/09
		Date Completed:	10/08/09
		Index-PCA Code:	Pacific Corp. Contract

RE: Microcystins analysis

RESULTS OF CHEMICAL ANALYSIS:


One water sample, twenty-two tissue samples and two liver composites were extracted and analyzed for microcystins by LC-MSMS (QqQ). Results of the analyses are attached.

*L-593-09, 22 fish tissue and 2 liver composites
 L-611-09, 1 water

- NA Not Applicable
- ND Not Detected
- MDL Method Detection Limit
- RL Reporting Limit
- MBLK Method Blank
- LCS Laboratory Control Spike
- LCSD Laboratory Control Spike Duplicate
- MS Matrix Spike
- MSD Matrix Spike Duplicate

Cost of Analysis: To be invoiced.

CC: Rick Carlson, Bureau of Reclamation, 6600 Washburn Way, Klamath Falls, OR, 97603


 Abdou Mekebri, Ph.D.
 Lead Pesticide Chemist

10.12.09
 Date


 David Crane
 Laboratory Director

10-13-09
 Date

U.S. Bureau of Reclamations
AIP 2009
L-611-09

WPCL Lab#	Estimated MDL	Reporting Limit	L-611-09-1	L-611-09-1Dup	Quality Control Results	-601-611-09-MBL	L-601-611-09-LCS	L-601-611-09-LCS	
Sample Identification			2009AIP-050	2009AIP-050					
Date Collected			22/Sep/2009	22/Sep/2009					
Time Collected			7:40	7:40					
Date Received			25/Sep/2009	25/Sep/2009					
Date Extracted			25/Sep/2009	25/Sep/2009			25/Sep/2009	25/Sep/2009	25/Sep/2009
Date Analyzed			25/Sep/2009	25/Sep/2009			25/Sep/2009	25/Sep/2009	25/Sep/2009
Matrix			water	water			water	water	water
Biotoxin Analytes	ppb	ppb	ppb (µg/L)	ppb (µg/L)			ppb (µg/L)	% Recovery	% Recovery
MC-RR	0.500	1.00	ND	ND			ND	110	107
MC-Desmethyl-RR*	0.500	1.00	ND	ND			ND	NA	NA
MC-LR	0.500	1.00	1.38	1.34			ND	78.7	87.7
MC-Desmethyl-LR	0.500	1.00	ND	ND			ND	NA	NA
MC-YR	0.500	1.00	ND	ND		ND	117	115	
MC-LA	0.500	1.00	ND	ND		ND	100	119	
MC-LW	0.500	1.00	ND	ND		ND	NA	NA	
MC-LF	0.500	1.00	ND	ND		ND	NA	NA	
MC-LY	0.500	1.00	ND	ND		ND	NA	NA	
Domoic acid	1.00	2.00	ND	ND		ND	NA	NA	
Okadaic acid	0.500	1.00	ND	ND		ND	NA	NA	

* Desmethyl-RR quantified as parent analog compound.

L-593-09

WPCL Lab#	Estimated MDL	Reporting Limit	L-593-09-1	L-593-09-1Dup	L-593-09-2	L-593-09-3	L-593-09-4	L-593-09-5
Sample Identification			Irongate Reservoir CR-1	Irongate Reservoir CR-1	Irongate Reservoir CR-2	Irongate Reservoir YP-1	Irongate Reservoir YP-2	Irongate Reservoir YP-3
Date Collected			09/Sep/2009	09/Sep/2009	09/Sep/2009	09/Sep/2009	09/Sep/2009	09/Sep/2009
Time Collected			NA	NA	NA	NA	NA	NA
Date Received			17/Sep/2009	17/Sep/2009	17/Sep/2009	17/Sep/2009	17/Sep/2009	17/Sep/2009
Date Extracted			29/Sep/2009	29/Sep/2009	29/Sep/2009	29/Sep/2009	29/Sep/2009	29/Sep/2009
Date Analyzed			29/Sep/2009	29/Sep/2009	29/Sep/2009	29/Sep/2009	29/Sep/2009	29/Sep/2009
Matrix			tissue fresh weight	tissue fresh weight	tissue fresh weight	tissue fresh weight	tissue fresh weight	tissue fresh weight
Biotoxin Analytes	ppb	ppb	ppb (ng/g)	ppb (ng/g)	ppb (ng/g)	ppb (ng/g)	ppb (ng/g)	ppb (ng/g)
MC-RR	0.500	1.00	ND	ND	ND	ND	ND	ND
MC-Desmethyl-RR*	0.500	1.00	ND	ND	ND	ND	ND	ND
MC-LR	0.500	1.00	ND	ND	ND	ND	ND	ND
MC-Desmethyl-LR	0.500	1.00	ND	ND	ND	ND	ND	ND
MC-YR	0.500	1.00	ND	ND	ND	ND	ND	ND
MC-LA	0.500	1.00	ND	ND	ND	ND	ND	ND
MC-LW	0.500	1.00	ND	ND	ND	ND	ND	ND
MC-LF	0.500	1.00	ND	ND	ND	ND	ND	ND
MC-LY	0.500	1.00	ND	ND	ND	ND	ND	ND
Domoic acid	2.00	5.00	ND	ND	ND	ND	ND	ND
Okadaic acid	1.00	2.00	ND	ND	ND	ND	ND	ND

* Desmethyl-RR quantified as parent analog compound.

L-593-09

WPCL Lab#	Estimated MDL	Reporting Limit	L-593-09-6	L-593-09-7	L-593-09-8	L-593-09-9	L-593-09-10	L-593-09-11
			Irongate Reservoir YP-4	Irongate Reservoir YP-5	Irongate Reservoir YP-6	Irongate Reservoir YP-7	Irongate Reservoir YP-8	Irongate Reservoir YP-9
Sample Identification								
Date Collected			09/Sep/2009	09/Sep/2009	09/Sep/2009	09/Sep/2009	09/Sep/2009	09/Sep/2009
Time Collected			NA	NA	NA	NA	NA	NA
Date Received			17/Sep/2009	17/Sep/2009	17/Sep/2009	17/Sep/2009	17/Sep/2009	17/Sep/2009
Date Extracted			29/Sep/2009	29/Sep/2009	29/Sep/2009	29/Sep/2009	29/Sep/2009	29/Sep/2009
Date Analyzed			29/Sep/2009	29/Sep/2009	29/Sep/2009	29/Sep/2009	29/Sep/2009	29/Sep/2009
Matrix			tissue fresh weight	tissue fresh weight	tissue fresh weight	tissue fresh weight	tissue fresh weight	tissue fresh weight
Biotoxin Analytes	ppb	ppb	ppb (ng/g)	ppb (ng/g)	ppb (ng/g)	ppb (ng/g)	ppb (ng/g)	ppb (ng/g)
MC-RR	0.500	1.00	ND	ND	ND	ND	ND	ND
MC-Desmethyl-RR*	0.500	1.00	ND	ND	ND	ND	ND	ND
MC-LR	0.500	1.00	ND	ND	ND	ND	ND	ND
MC-Desmethyl-LR	0.500	1.00	ND	ND	ND	ND	ND	ND
MC-YR	0.500	1.00	ND	ND	ND	ND	ND	ND
MC-LA	0.500	1.00	ND	ND	ND	ND	ND	ND
MC-LW	0.500	1.00	ND	ND	ND	ND	ND	ND
MC-LF	0.500	1.00	ND	ND	ND	ND	ND	ND
MC-LY	0.500	1.00	ND	ND	ND	ND	ND	ND
Domoic acid	2.00	5.00	ND	ND	ND	ND	ND	ND
Okadaic acid	1.00	2.00	ND	ND	ND	ND	ND	ND
* Desmethyl-RR quantified as parent analog compound.								

L-593-09

WPCL Lab#	Estimated MDL	Reporting Limit	L-593-09-12	L-593-09-13	L-593-09-14	L-593-09-15	L-593-09-16	L-593-09-17
Sample Identification			Irongate Reservoir YP-10	Copco Reservoir YP-1	Copco Reservoir YP-2	Copco Reservoir YP-3	Copco Reservoir YP-4	Copco Reservoir YP-5
Date Collected			09/Sep/2009	09/Sep/2009	09/Sep/2009	09/Sep/2009	09/Sep/2009	09/Sep/2009
Time Collected			NA	NA	NA	NA	NA	NA
Date Received			17/Sep/2009	17/Sep/2009	17/Sep/2009	17/Sep/2009	17/Sep/2009	17/Sep/2009
Date Extracted			29/Sep/2009	29/Sep/2009	29/Sep/2009	29/Sep/2009	29/Sep/2009	29/Sep/2009
Date Analyzed			29/Sep/2009	29/Sep/2009	29/Sep/2009	29/Sep/2009	29/Sep/2009	29/Sep/2009
Matrix			tissue fresh weight	tissue fresh weight	tissue fresh weight	tissue fresh weight	tissue fresh weight	tissue fresh weight
Biotoxin Analytes	ppb	ppb	ppb (ng/g)	ppb (ng/g)	ppb (ng/g)	ppb (ng/g)	ppb (ng/g)	ppb (ng/g)
MC-RR	0.500	1.00	ND	ND	ND	ND	ND	ND
MC-Desmethyl-RR*	0.500	1.00	ND	ND	ND	ND	ND	ND
MC-LR	0.500	1.00	ND	ND	ND	ND	ND	ND
MC-Desmethyl-LR	0.500	1.00	ND	ND	ND	ND	ND	ND
MC-YR	0.500	1.00	ND	ND	ND	ND	ND	ND
MC-LA	0.500	1.00	ND	ND	ND	ND	ND	ND
MC-LW	0.500	1.00	ND	ND	ND	ND	ND	ND
MC-LF	0.500	1.00	ND	ND	ND	ND	ND	ND
MC-LY	0.500	1.00	ND	ND	ND	ND	ND	ND
Domoic acid	2.00	5.00	ND	ND	ND	ND	ND	ND
Okadaic acid	1.00	2.00	ND	ND	ND	ND	ND	ND
* Desmethyl-RR quantified as parent analog compound.								

L-593-09

WPCL Lab#	Estimated MDL	Reporting Limit	L-593-09-18	L-593-09-18Dup	L-593-09-19	L-593-09-20	L-593-09-21	L-593-09-22
Sample Identification			Copco Reservoir YP-6	Copco Reservoir YP-6	Copco Reservoir YP-7	Copco Reservoir YP-8	Copco Reservoir YP-9	Copco Reservoir YP-10
Date Collected			09/Sep/2009	09/Sep/2009	09/Sep/2009	09/Sep/2009	09/Sep/2009	09/Sep/2009
Time Collected			NA	NA	NA	NA	NA	NA
Date Received			17/Sep/2009	17/Sep/2009	17/Sep/2009	17/Sep/2009	17/Sep/2009	17/Sep/2009
Date Extracted			29/Sep/2009	29/Sep/2009	29/Sep/2009	29/Sep/2009	29/Sep/2009	29/Sep/2009
Date Analyzed			29/Sep/2009	29/Sep/2009	29/Sep/2009	29/Sep/2009	29/Sep/2009	29/Sep/2009
Matrix			tissue fresh weight	tissue fresh weight	tissue fresh weight	tissue fresh weight	tissue fresh weight	tissue fresh weight
Biotoxin Analytes	ppb	ppb	ppb (ng/g)	ppb (ng/g)	ppb (ng/g)	ppb (ng/g)	ppb (ng/g)	ppb (ng/g)
MC-RR	0.500	1.00	ND	ND	ND	ND	ND	ND
MC-Desmethyl-RR*	0.500	1.00	ND	ND	ND	ND	ND	ND
MC-LR	0.500	1.00	ND	ND	ND	ND	ND	ND
MC-Desmethyl-LR	0.500	1.00	ND	ND	ND	ND	ND	ND
MC-YR	0.500	1.00	ND	ND	ND	ND	ND	ND
MC-LA	0.500	1.00	ND	ND	ND	ND	ND	ND
MC-LW	0.500	1.00	ND	ND	ND	ND	ND	ND
MC-LF	0.500	1.00	ND	ND	ND	ND	ND	ND
MC-LY	0.500	1.00	ND	ND	ND	ND	ND	ND
Domoic acid	2.00	5.00	ND	ND	ND	ND	ND	ND
Okadaic acid	1.00	2.00	ND	ND	ND	ND	ND	ND
* Desmethyl-RR quantified as parent analog compound.								

L-593-09

WPCL Lab#	Estimated MDL	Reporting Limit	L-593-09-23	L-593-09-24	Quality Control Results	L-593-09-MBLK1	L-593-09-MBLK2	L-593-09-LCS1	
Sample Identification			Iron Gate livers	Copco livers					
Date Collected			09/Sep/2009	09/Sep/2009					
Time Collected			NA	NA					
Date Received			17/Sep/2009	17/Sep/2009					
Date Extracted			29/Sep/2009	29/Sep/2009			29/Sep/2009	29/Sep/2009	29/Sep/2009
Date Analyzed			29/Sep/2009	29/Sep/2009			29/Sep/2009	29/Sep/2009	29/Sep/2009
Matrix			liver composite fresh weight	liver composite fresh weight			tissue fresh weight	tissue fresh weight	tissue fresh weight
Biotoxin Analytes			ppb	ppb			ppb (ng/g)	ppb (ng/g)	% Recovery
MC-RR			0.500	1.00			ND	ND	70.9
MC-Desmethyl-RR*			0.500	1.00			ND	ND	NA
MC-LR			0.500	1.00			ND	ND	76.9
MC-Desmethyl-LR			0.500	1.00			ND	ND	NA
MC-YR			0.500	1.00			ND	ND	91.2
MC-LA			0.500	1.00		ND	ND	72.1	
MC-LW			0.500	1.00		ND	ND	NA	
MC-LF			0.500	1.00		ND	ND	NA	
MC-LY			0.500	1.00		ND	ND	NA	
Domoic acid			2.00	5.00		ND	ND	NA	
Okadaic acid			1.00	2.00		ND	ND	NA	

* Desmethyl-RR quantified as parent analog compound.

L-593-09

WPCL Lab#	Estimated MDL	Reporting Limit	L-593-09-LCS2	L-593-09-2MS	L-593-09-2MSD	L-593-09-17MS	L-593-09-17MSD
Sample Identification				Irongate Reservoir CR-2	Irongate Reservoir CR-2	Copco Reservoir YP-5	Copco Reservoir YP-5
Date Collected				09/Sep/2009	09/Sep/2009	09/Sep/2009	09/Sep/2009
Time Collected				NA	NA	NA	NA
Date Received				17/Sep/2009	17/Sep/2009	17/Sep/2009	17/Sep/2009
Date Extracted			29/Sep/2009	29/Sep/2009	29/Sep/2009	29/Sep/2009	29/Sep/2009
Date Analyzed			29/Sep/2009	29/Sep/2009	29/Sep/2009	29/Sep/2009	29/Sep/2009
Matrix			tissue	tissue	tissue	tissue	tissue
			fresh weight	fresh weight	fresh weight	fresh weight	fresh weight
Biotoxin Analytes	ppb	ppb	% Recovery	% Recovery	% Recovery	ppb (ng/g)	ppb (ng/g)
MC-RR	0.500	1.00	74.3	62.2	60.4	60.1	59.4
MC-Desmethyl-RR*	0.500	1.00	NA	NA	NA	NA	NA
MC-LR	0.500	1.00	103	95.2	72.4	64.8	79.3
MC-Desmethyl-LR	0.500	1.00	NA	NA	NA	NA	NA
MC-YR	0.500	1.00	109	87.0	78.3	76.7	89.8
MC-LA	0.500	1.00	80.2	89.2	78.7	67.1	83.2
MC-LW	0.500	1.00	NA	NA	NA	NA	NA
MC-LF	0.500	1.00	NA	NA	NA	NA	NA
MC-LY	0.500	1.00	NA	NA	NA	NA	NA
Domoic acid	2.00	5.00	NA	NA	NA	NA	NA
Okadaic acid	1.00	2.00	NA	NA	NA	NA	NA

* Desmethyl-RR quantified as parent analog compound.