MSD

Louisville and Jefferson County Metropolitan Sewer District
700 West Liberty Street
Louisville Kentucky 40203-1911
502-540-6000
www.msdlouky.org

July 24, 2008

Ms. Kathy Thurman
Kentucky Division of Water
14 Reilly Road
Frankfort, Kentucky 40601

RE: West County Treatment Plant, KPDES No: KY0078956
Discharge Monitoring Report
June 2008

Dear Ms. Thurman:

Attached are the Discharge Monitoring Report (DMR) for the West County Wastewater Treatment Plant, for the month of June 2008. The Whole Effluent Toxicity (WET) test for the second quarter has been electronically submitted.
There is one exceedence for minimum effluent pH. Upon obtaining this result, we immediately retested the effluent pH and found that the effluent pH was in compliance. There was no evidence of the WCWTP being upset. This exceedence possibly indicates that there was a cross contamination in our sample bottle.

If you have any questions concerning the attached DMR's, please contact me at (502)540-6031.

Sincerely,

Kevin D. Ries
Process Supervisor, West Region

KDR/West County 0608.doc

Enclosures

cc: T. Singleton
R. Shaw

MSD

Louisville and Jefferson County Metropolitan Sewer District
700 West Liberty Street
Louisville Kentucky 40203-1911
502-540-6000
www.msdlouky.org

July 24, 2008

Mr. Charlie Roth
Kentucky Division of Water
9116 Leesgate Rd.
Louisville, Kentucky 40222

RE: West County Treatment Plant, KPDES No: KY0078956
Discharge Monitoring Report
June 2008

Dear Mr. Roth:

Attached are the Discharge Monitoring Report (DMR) and the Monthly Operating Report (MOR) report for the West County Wastewater Treatment Plant, for the month of June 2008. There is one exceedence for minimum effluent pH. Upon obtaining this result, we immediately retested the effluent pH and found that the effluent pH was in compliance. There was no evidence of the WCWTP being upset. This exceedence possibly indicates that there was a cross contamination in our sample bottle.

If you have any questions concerning the attached DMR's, please contact me at (502)540-6031.

Sincerely,

Kevin D. Ries
Process Supervisor, West Region

KDR/West County 0608.doc

PERMITTEE NAME/ADDRESS *(Include Facility Name/Location if Different)*
NAME MSD WEST COUNTY STP
ADDRESS C/O CEDAR CREEK STP
8405 CEDAR CREEK RD
LOUISVILLE KY 40211
FACILITY LOCATION MSD WEST COUNTY STP
LOUISVILLE KY 40272
ATTN: DENNIS THOMASSON, SR METRO OPS

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*
DISCHARGE MONITORING REPORT (DMR)

Form Approved.
OMB No. 2040-0004

KY0078956	001 2
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	08	06	01	TO	08	06	30

MAJOR
(SUBR LV)
F - FINAL
MUNICIPAL WASTEWATER
EFFLUENT
*** NO DISCHARGE | | ***

JEFFE

NOTE: Read Instructions before completing this form.

PARAMETER		QUANTITY OR LOADING AVERAGE	QUANTITY OR LOADING MAXIMUM	QUANTITY OR LOADING UNITS	QUALITY OR CONCENTRATION MINIMUM	QUALITY OR CONCENTRATION AVERAGE	QUALITY OR CONCENTRATION MAXIMUM	QUALITY OR CONCENTRATION UNITS	NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
OXYGEN, DISSOLVED (DO)	SAMPLE MEASUREMENT	******	******		5.1	******	******	(19)	Ø	01/01	GR
00300 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	******	******	*****	2 INST MIN	******	******	MG/L		DAILY	GRAB
BOD, 5-DAY (20 DEG. C)	SAMPLE MEASUREMENT	26149	27306	(26)	******	169	181	(19)	Ø	01/01	CP
00310 9 0 0 RAW SEW/INFLUENT	PERMIT REQUIREMENT	REPORT MO AVG	REPORT MX WK AV	LBS/DY	******	REPORT MO AVG	REPORT MX WK AV	MG/L		DAILY	COMPOS
BOD, 5-DAY (20 DEG. C)	SAMPLE MEASUREMENT	1413	2139	(26)	******	9.1	11.0	(19)	Ø	01/01	CP
00310 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	7506 MO AVG	11259 MX WK AV	LBS/DY	******	30 MO AVG	45 MX WK AV	MG/L		DAILY	COMPOS
PH	SAMPLE MEASUREMENT	******	******		5.5	******	7.5	(12)	1	01/01	GR
00400 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	******	******	*****	6.0 MINIMUM	******	9.0 MAXIMUM	SU		DAILY	GRAB
SOLIDS, TOTAL SUSPENDED	SAMPLE MEASUREMENT	31151	34406	(26)	******	200	211	(19)	Ø	01/01	CP
00530 9 0 0 RAW SEW/INFLUENT	PERMIT REQUIREMENT	REPORT MO AVG	REPORT MX WK AV	LBS/DY	******	REPORT MO AVG	REPORT MX WK AV	MG/L		DAILY	COMPOS
SOLIDS, TOTAL SUSPENDED	SAMPLE MEASUREMENT	759	1046	(26)	******	5.0	7.0	(19)	Ø	01/01	CP
00530 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	7506 MO AVG	11259 MX WK AV	LBS/DY	******	30 MO AVG	45 MX WK AV	MG/L		DAILY	COMPOS
NITROGEN, AMMONIA TOTAL (AS N)	SAMPLE MEASUREMENT	2574	2800	(26)	******	16.5	17.9	(19)	Ø	01/01	CP
00610 9 0 0 RAW SEW/INFLUENT	PERMIT REQUIREMENT	REPORT MO AVG	REPORT MX WK AV	LBS/DY	******	REPORT MO AVG	REPORT MX WK AV	MG/L		DAILY	COMPOS

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE	DATE		
H.J. Schardein Exec. Director TYPED OR PRINTED	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE 502 / NUMBER 540-6000	YEAR 08	MO 07	DAY 23

COMMENTS AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

USE MO AVG FOR BOD/TSS REMV; REPT IN MINIMUM COLUMN.

Effluent pH exceedence, See cover letter for explanation.

PERMITTEE NAME/ADDRESS *(Include Facility Name/Location if Different)*

NAME MSD WEST COUNTY STP

ADDRESS C/O CEDAR CREEK STP
8405 CEDAR CREEK RD
LOUISVILLE KY 40211

FACILITY LOCATION MSD WEST COUNTY STP
LOUISVILLE KY 40272

ATTN: DENNIS THOMASSON, SR METRO OPS

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*
DISCHARGE MONITORING REPORT *(DMR)*

PERMIT NUMBER	DISCHARGE NUMBER
KY0078956	001 2

	MONITORING PERIOD						
	YEAR	MO	DAY		YEAR	MO	DAY
FROM	08	06	01	TO	08	06	30

MAJOR
(SUBR LV)
F - FINAL JEFFE
MUNICIPAL WASTEWATER
EFFLUENT
*** NO DISCHARGE [ ] ***

Form Approved.
OMB No. 2040-0004

NOTE: Read Instructions before completing this form.

PARAMETER		QUANTITY OR LOADING AVERAGE	QUANTITY OR LOADING MAXIMUM	UNITS	QUALITY OR CONCENTRATION MINIMUM	QUALITY OR CONCENTRATION AVERAGE	QUALITY OR CONCENTRATION MAXIMUM	UNITS	NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
NITROGEN, AMMONIA TOTAL (AS N)	SAMPLE MEASUREMENT	756	960	(26)	******	4.9	6.3	(19)	Ø	01/01	CP
00610 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	5004 MO AVG	7506 MX WK AV	LBS/DY	******	20 MO AVG	30 MX WK AV	MG/L		DAILY	COMPOS
NITROGEN, KJELDAHL TOTAL (AS N)	SAMPLE MEASUREMENT	797	876	(26)	******	5.4	5.4	(19)	Ø	01/01	CP
00625 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	REPORT MO AVG	REPORT MX WK AV	LBS/DY	******	REPORT MO AVG	REPORT MX WK AV	MG/L		WEEKLY	COMPOS
PHOSPHORUS, TOTAL (AS P)	SAMPLE MEASUREMENT	194	232	(26)	******	1.3	1.6	(19)	Ø	01/07	CP
00665 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	REPORT MO AVG	REPORT MX WK AV	LBS/DY	******	REPORT MO AVG	REPORT MX WK AV	MG/L		WEEKLY	COMPOS
FLOW, IN CONDUIT OR THRU TREATMENT PLANT	SAMPLE MEASUREMENT	18.9	23.2	(03)	******	******	******		Ø	CN	CN
50050 G 0 0 RAW SEW/INFLUENT	PERMIT REQUIREMENT	REPORT MO AVG	REPORT DAILY MX	MGD	******	******	******	**** ****		CONTINUOUS	CONTIN
FLOW, IN CONDUIT OR THRU TREATMENT PLANT	SAMPLE MEASUREMENT	18.7	23.4	(03)	******	******	******		Ø	CN	CN
50050 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	REPORT MO AVG	REPORT DAILY MX	MGD	******	******	******	**** ****		CONTINUOUS	CONTIN
CHLORINE, TOTAL RESIDUAL	SAMPLE MEASUREMENT	******	******		******	******	<0.010	(19)	Ø	01/01	GR
50060 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	******	******	**** ****	******	******	0.019 DAILY MX	MG/L		DAILY	GRAB
COLIFORM, FECAL GENERAL	SAMPLE MEASUREMENT	******	******		******	6	12	(13)	Ø	01/01	GR
74055 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	******	******	**** ****	******	200 30DA GEO	400 7 DA GEO	#/ 100ML		DAILY	GRAB

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

H.J. Schardein
Exec. Director

TYPED OR PRINTED

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Kevin D. [signature]

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE		DATE		
502	540-6000	08	07	23
AREA CODE	NUMBER	YEAR	MO	DAY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

USE MO AVG FOR BOD/TSS REMV;REPT IN MINIMUM COLUMN.

PERMITTEE NAME/ADDRESS *(Include Facility Name/Location if Different)*

NAME MSD WEST COUNTY STP
ADDRESS C/O CEDAR CREEK STP
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LOUISVILLE KY 40211
FACILITY LOCATION MSD WEST COUNTY STP
LOUISVILLE KY 40272
ATTN: DENNIS THOMASSON, SR METRO OPS

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*
DISCHARGE MONITORING REPORT *(DMR)*

Form Approved.
OMB No. 2040-0004

KY0078956 PERMIT NUMBER

001 2 DISCHARGE NUMBER

MAJOR
(SUBR LV)
F - FINAL JEFFE
MUNICIPAL WASTEWATER
EFFLUENT
*** NO DISCHARGE |__| ***

	YEAR	MO	DAY		YEAR	MO	DAY
MONITORING PERIOD FROM	08	06	01	TO	08	06	30

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BOD, 5-DAY PERCENT REMOVAL	SAMPLE MEASUREMENT	******	******		95	******	******	(23)	Ø	01/30	CA
81010 K 0 0 PERCENT REMOVAL	PERMIT REQUIREMENT	******	******	*******	85 MO AVG	******	******	PER-CENT		ONCE/ MONTH	CALCTD
SOLIDS, SUSPENDED PERCENT REMOVAL	SAMPLE MEASUREMENT	******	******		98	******	******	(23)	Ø	01/30	CA
81011 K 0 0 PERCENT REMOVAL	PERMIT REQUIREMENT	******	******	*******	85 MO MIN	******	******	PER-CENT		ONCE/ MONTH	CALCTD
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
H.J. Schardein
Exec. Director
TYPED OR PRINTED

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Kevin D. Rus[signature]
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE AREA CODE	NUMBER	DATE YEAR	MO	DAY
502	540-6000	08	07	23

COMMENTS AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

USE MO AVG FOR BOD/TSS REMV; REPT IN MINIMUM COLUMN.

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DISCHARGE MONITORING REPORT *(DMR)*

PERMIT NUMBER	DISCHARGE NUMBER
~~KY0078956~~	001 R

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	08	06	01	TO	08	06	30

Form Approved.
OMB No. 2040-0004

MAJOR
(SUBR LV)
F - FINAL JEFFE
REASONABLE POTENTIAL
EFFLUENT
*** NO DISCHARGE |__| ***

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CHROMIUM, HEXAVALENT (AS CR)	SAMPLE MEASUREMENT	******	******		******	<0.010	<0.010	(19)	Ø	01/30	CP
01032 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	******	******	********	******	REPORT MO AVG	REPORT DAILY MX	MG/L		ONCE/ MONTH	COMPOS
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
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	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
H.J. Schardein
Exec. Director
TYPED OR PRINTED

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Kevin D. Ries
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE		DATE		
502	540-6000	08	07	23
AREA CODE	NUMBER	YEAR	MO	DAY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

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NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM ***(NPDES)***
DISCHARGE MONITORING REPORT *(DMR)*

PERMIT NUMBER	DISCHARGE NUMBER
KY0078956	001 Y

	MONITORING PERIOD						
	YEAR	MO	DAY		YEAR	MO	DAY
FROM	08	04	01	TO	08	06	30

MAJOR
(SUBR LV)
F - FINAL JEFFE
BIOMONITORING/METALS/QUARTERLY
EFFLUENT
*** NO DISCHARGE [ ] ***

Form Approved.
OMB No. 2040-0004

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PARAMETER		QUANTITY OR LOADING AVERAGE	QUANTITY OR LOADING MAXIMUM	QUANTITY OR LOADING UNITS	QUALITY OR CONCENTRATION MINIMUM	QUALITY OR CONCENTRATION AVERAGE	QUALITY OR CONCENTRATION MAXIMUM	QUALITY OR CONCENTRATION UNITS	NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
HARDNESS, TOTAL (AS CACO3)	SAMPLE MEASUREMENT	******	******		******	238	238	(19)	Ø	01/90	G2
00900 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	******	******	********	******	REPORT MO AVG	REPORT DAILY MX	MG/L		QTRLY	GRAB-2
ZINC TOTAL RECOVERABLE	SAMPLE MEASUREMENT	******	******		******	0.0435	0.0435	(19)	Ø	01/90	G2
01094 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	******	******	********	******	REPORT MO AVG	REPORT DAILY MX	MG/L		QTRLY	GRAB-2
CADMIUM TOTAL RECOVERABLE	SAMPLE MEASUREMENT	******	******		******	<0.0001	<0.0001	(19)	Ø	01/90	G2
01113 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	******	******	********	******	REPORT MO AVG	REPORT DAILY MX	MG/L		QTRLY	GRAB-2
LEAD TOTAL RECOVERABLE	SAMPLE MEASUREMENT	******	******		******	<0.005	<0.005	(19)	Ø	01/90	G2
01114 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	******	******	********	******	REPORT MO AVG	REPORT DAILY MX	MG/L		QTRLY	GRAB-2
COPPER TOTAL RECOVERABLE	SAMPLE MEASUREMENT	******	******		******	0.008	0.008	(19)	Ø	01/90	G2
01119 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	******	******	********	******	REPORT MO AVG	REPORT DAILY MX	MG/L		QTRLY	GRAB-2
TOXICITY, FINAL CONC TOXICITY UNITS	SAMPLE MEASUREMENT	******	******		******	******	<1.00	(2F)	Ø	01/90	G2
61406 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	******	******	********	******	******	1.00 DAILY MX	ACUTE TOXCTY		QTRLY	GRAB-2
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

H.J. Schardein
Exec. Director

TYPED OR PRINTED

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Kent D. [signature]

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE		DATE		
502	540-6000	08	07	23
AREA CODE	NUMBER	YEAR	MO	DAY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

Name of Sewage Treatment Plant: West County WTP Jefferson County Month of: June 2008

KPDES Permit Number: KY0078956 Plant Capacity: 30 MGD Receiving Stream: Ohio River

Date	Total Flow (MG)	Raw Sewage: Grit Removed (cu. ft.)	Raw Sewage: Screenings (cu. ft.)	pH: Raw	pH: Final	Settleable Solids (mL/L): Raw	Settleable Solids (mL/L): Primary (or Sec.)	Settleable Solids (mL/L): Final	Dissolved Oxygen (mg/L): Stream Above	Dissolved Oxygen (mg/L): Final	Dissolved Oxygen (mg/L): Stream Below	Suspended Solids (mg/L): Raw	Suspended Solids (mg/L): Primary (or Sec.)	Suspended Solids (mg/L): Final	Total Solids (mg/L): Raw	Total Solids (mg/L): Primary (or Sec.)	Total Solids (mg/L): Final	5-day BOD (mg/L): Raw	5-day BOD (mg/L): Primary (or Sec.)	5-day BOD (mg/L): Final	Activated Sludge Return: Million Gal/Day	Activated Sludge Return: MLSS mg/L X 1000	Activated Sludge WAS: Gal/Day X 1000	Aeration Basin: Dissolved Oxygen (mg/L) #1	Aeration Basin: Dissolved Oxygen (mg/L) #2	Aeration Basin: MLSS (mg/L) X1000 #1&#2	Aeration Basin: MLVSS (mg/L) X1000 #1&#2	Aeration Basin: 30 min. SettS.	Aeration Basin: SVI	Dig Sludge: % Solids	Final: Phosphorus (mg/L)	Final: TKN (mg/L)	Final: Chlorine Residual (mg/L)	Final: NH3-N (mg/L)	Final: Fecal Coliform Col./100ml
1	19.44			7.3	7.4					6.8		218		3				179		6		3520				2060	1580	150.0	0.07			5.40	0.01	4.00	2
2	19.18			7.5	7.3					6.9		218		3				179		7		3470				2160	1650	160.0	0.07				0.01	5.10	21
3	23.35			7.1	7.2					6.0		222		4				151		9		3880				1990	1560	150.0	0.08		0.87		0.01	3.40	1
4	20.94			8.0	7.1					5.5		192		3				140		7		3330				1840	1420	150.0	0.08				0.01	3.70	1
5	20.30			7.3	7.1					5.5		182		3				156		8		3190				1810	1400	150.0	0.08				0.01	3.10	7
6	18.65			7.5	7.1					6.7		194		3				159		9		3140				1850	1470	150.0	0.08				0.01	2.70	1
7	18.77			7.2	7.3					6.4		210		4				182		8		3350				1980	1550	150.0	0.08				0.01	3.60	1
8	17.17			7.2	7.4					6.4		200		3				198		9		3050				2330	1870	150.0	0.06			5.40	0.01	4.00	4
9	18.20			7.4	7.3					6.8		188		3				156		8		2940				2090	1500	150.0	0.07				0.01	4.40	88
10	17.79			7.4	5.5					6.1		192		6				153		10		3010				1810	1430	150.0	0.08		1.31		0.01	4.00	883
11	17.18			7.4	7.3					5.9		200		4				170		6		2990				1730	1390	150.0	0.09				0.01	4.20	9
12	18.53			7.2	7.0					6.0		212		5				170		8		3170				1740	1390	150.0	0.09				0.01	5.10	4
13	20.53			7.1	6.9					6.0		84		6				102		7		3400				1640	1280	140.0	0.09				0.01	5.80	1
14	21.50			7.1	7.3					5.7		154		5				158		6		3230				1440	1180	140.0	0.10				0.01	5.20	6
15	17.86			7.1	7.0					5.7		348		6				204		9		3600				2080	1590	160.0	0.08				0.01	6.70	72
16	19.37			7.1	7.0					5.4		176		8				164		9		4020				2010	1580	150.0	0.07				0.01	6.00	1
17	17.80			7.3	7.1					5.4		196		7				167		13		3610				1650	1300	150.0	0.09		1.56		0.01	6.20	7
18	17.30			7.1	7.0					5.5		190		8				185		8		3400				1450	1120	150.0	0.10				0.01	6.00	1
19	17.51			7.1	7.3					5.8		178		7				221		13		3770				1510	1260	140.0	0.09				0.01	7.00	3
20	18.79			7.1	7.3					7.4		180		7				138		10		3350				1530	1220	140.0	0.09				0.01	5.60	11
21	19.74			7.9	7.4					7.0		214		5				156		9		3500				1620	1340	140.0	0.09				0.01	6.00	15
22	18.79			7.1	7.0					6.7		214		7				161		12		3300				1850	1435	150.0	0.08				0.01	6.70	3
23	18.32			7.2	7.4					6.5		176		4				180		14		3270				1880	1470	150.0	0.08				0.01	5.90	6
24	16.88			7.1	7.1					6.1		202		4				164		11		3220				1710	1380	150.0	0.09		1.28		0.01	4.70	6
25	16.46			7.1	7.2					5.1		204		7				200		10		2950				1750	1430	160.0	0.09				0.01	4.10	15
26	17.40			7.3	6.9					5.4		222		7				202		12		2790				1940	1530	140.0	0.07				0.01	4.50	36
27	17.45			7.3	6.9					5.4		206		5				162		11		2670				1520	1280	150.0	0.10			4.70	0.01	4.00	53
28	21.34			7.0	7.1					5.6		186		5				160		8		2850				1650	1270	140.0	0.08				0.01	4.20	10
29	17.79			7.0	7.1					5.4		224		4				173		10		2820				1660	1290	140.0	0.08			6.00	0.01	4.60	6
30	17.44			7.0	6.9					7.1		192		3				178		9		2630				1550	1240	140.0	0.09				0.01	5.10	2
31	0.00																												#VALUE!						
Total	561.8	0	0																			0.0		0.0											
Avg.	**18.12**			**7.3**	**7.1**					**6.1**		**199**		**5**				**169**		**9**		**3247.3**				**1794.33**	**1413.50**	**148.00**	**#VALUE!**		**1.26**	**5.38**	**0.01**	**4.85**	6

Total Number of Sewer Connections: 0

Residential Connections:

Commercial Connections:

Industrial Connections:

Sewer Connections X 4 = 0

Industrial Waste Population Equivalent

172587	150186	143314
Flow	BOD	TSS

Operator: Donald Rheinlaender Jr

Cert. #: 16499

Phone #: 502-540-6042

NAME OF SEWAGE TREATMENT PLANT WEST COUNTY WTP

Month of: June 2008
Average Flow 18.73 MGD

	Weather Data			
Date	High	Low	Rainfall	Remarks
1				
2				
3				took #3 Bar Screen O/S fo maintenance to work on convayor system.
4				#2 Grit Classifier was clogged took out , maint. Unclogged
5				
6				Did Bio monitor sampling
7				
8				
9				
10				
11				
12				
13				Took #1 clar. o/s to clean and P.M
14				Put #1 clar. Back in service.
15				Took #5 clar. o/s to clean for contractors to check out.
16				Maint. Working on #3 clar. Skimmer
17				
18				
19				Took #3 clar o/s so maint. Can P.M
20				Increased flow from clarifiers from 4000 to 5000
21				Took #3 Bar Screen o/s for the contractors to install new screen
22				
23				
24				
25				
26				
27				
28				Took #4,5&6 clarifiers o/s, and had them cleaned for the contractors
29				
30				
31				
Total			0	
Avg.				

Acute Toxicity Evaluation for the MSD – West County Wastewater Treatment Plant

June 2008

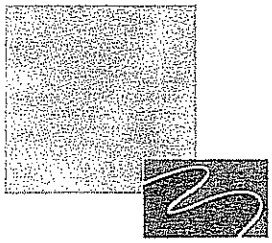
Prepared by:

Beckmar Environmental Laboratory
Biomonitoring Department
3251 Ruckriegel Parkway
Louisville, KY. 40299
(502) 266-6533

Submitted to:

Mr. Kevin Ries
West County Wastewater Treatment Plant
700 West Liberty St.
Louisville, KY. 40203

Released by: Amanda L. Spalding
Biomonitoring QA Officer 7-3-08



Summary

Acute toxicity testing was performed on final effluent samples collected June 6, 2008 from the MSD West County Wastewater Treatment Plant. Testing was performed June 7 through 9, 2008 and upon termination, the following conclusions were reached:

For the 48-hour *Ceriodaphnia dubia* survival test, the LC_{50s} for survival for samples "A" and "B" were greater than 100% effluent, generating an acute toxicity value of less than 1.00 TUa ($TUa=100/LC_{50}$).

For the 48-hour *Pimephales promelas* survival test, the LC_{50s} for survival for samples "A" and "B" were greater than 100% effluent, generating an acute toxicity value of less than 1.00 TUa ($TUa=100/LC_{50}$).

Introduction

At the request of Mr. Kevin Ries, acute toxicity testing was performed on two grab effluent samples collected June 6, 2008 from the MSD West County Wastewater Treatment Plant in Louisville, KY. Metals analyses were also performed on effluent samples collected during the same time period. Information concerning plant and laboratory conditions can be found on the following pages.

The acute toxicity testing was performed in accordance with the US EPA methodology as defined in the US EPA manual "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms" fifth edition, 2002 (EPA-821-R-02-012). The acute toxicity tests were performed in order to ascertain the LC_{50} values for *Ceriodaphnia dubia* and *Pimephales promelas* survival.

Beckmar

ENVIRONMENTAL
LABORATORY

Jeffersontown Business Park
3251 Ruckriegel Parkway
Jeffersontown, KY 40299
502.266.6533
FAX 502.266.6446

Date of Issue: June 23, 2008

Metropolitan Sewer District c/o Mr. Kevin Ries
700 West Liberty St.
Louisville, KY 40203-1913

RE: Analysis results for: West County WWTP: Biomonitoring metals/hardness.

BECKMAR CERTIFICATE OF ANALYSIS # 200529
Sample Date: 6/6/2008
Sample Time: 20:00
Sampled by: Kenneth Jones

Parameter	Results	Units	Type	Method	Analyzed Date / Time		Analyst
Hardness (T)	*238*	mg/l	C	EPA 130.2	6/12/2008	14:30	BWK
Cadmium (gfaa)	*< 0.0001*	mg/l	C	EPA 200.7	6/10/2008	7:30	ALS
Copper (TR)	*0.008*	mg/l	C	EPA 200.7	6/9/2008	16:00	ALS
Lead (TR)	*< 0.005*	mg/l	C	EPA 200.7	6/9/2008	16:00	ALS
Zinc (TR)	*0.0435*	mg/l	C	EPA 200.7	6/9/2008	16:00	ALS

Remarks:

If you have any questions please call.

Thank you,

Joe P. Carney
Quality Control Officer

JPC:dwt

Test Type: Acute X Screen ___
Chronic ___ Definitive X

TOXICITY TEST REPORT SHEET

1) Facility/Discharger: MSD West County WWTP Report Date: 7/2/2008

2) Address: 11601 Lower River Rd. Louisville, KY. 40272

3) NPDES Permit #: KY0078956 4) Receiving Stream: Ohio River @ mile 358.1

5) Facility Contact: Mr. Kevin Ries

6) Phone #: (502)-540-6031

7) Consultant/Testing Lab Name: **Beckmar Environmental Laboratory**

8) Lab Contact: Becky Barker Phone #: (502) 266-6533

9) Outfall(s) Tested: 1

10) Average Daily flow on day sampled (MGD) 1) na 2) na
3) ___ 4) ___ 5) ___ 6) ___ 7) ___

11) Test Species: 1) Ceriodaphnia dubia 2) Pimephales promelas

12) Species Age: 1) < 24 hours 2) 4 days old

13) Organism Source: 1) lab culture 2) fish hatch 060308

14) Acclimation Procedures: 1) Reared at test conditions in synthetic water
2) Reared at test conditions in synthetic water

15) Test Conditions: Static: X Static-Renewal: ___

16) Dilution Water Type (Synthetic, Receiving Stream): synthetic - mhsw

17) Aeration? (Before Test/During Test/None): no

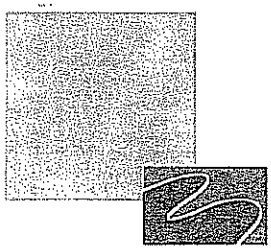
18) Dechlorination? no Original Chlorine Level: <0.01 mg/L

R Rhonda Baker
(Signature of person filling out form)

7/2/2008
Date

Rhonda Baker
Name (Typed or Printed)

Biologist
Title



Materials and Methods

Sampling

Two samples were collected twelve hours apart (Table I) and delivered to Beckmar Environmental Laboratory. Upon receipt, the sample went through standard log in procedures.

Control/Dilution Water

All chemicals used are reagent grade, obtained from Aldrich. 1.20 grams of $CaSO_4$, 1.2 grams of $MgSO_4$, 1.92 grams of $NaHCO_3$, and 0.080 grams of KCl were dissolved in distilled water provided by a Barnstead Thermolyne distillation system and aerated for a minimum of 24 hours.

Test Containers

C. dubia tests were performed in 1 ounce plastic cups obtained from Plastics Inc. (St. Paul, MN). *Pimephales promelas* tests were performed in 600 mL plastic cups obtained from Liquor Outlet (Louisville, KY).

Toxicity Testing

The sample was allowed to warm to room temperature (25°C) and was tested for residual chlorine immediately prior to dilution. Testing was then performed in accordance with US EPA methodology. Data was recorded on Beckmar generated lab sheets (Appendix I).

Chemical Analysis

All test dilutions as well as control/dilution water were tested to determine initial dissolved oxygen, temperature, and pH. At the end of 48 hours, the control/dilution water and test dilutions were again tested to determine final dissolved oxygen, temperature and pH. Also, specific conductance, hardness, and alkalinity analyses were performed on the initial control/dilution water and 100% sample. Data was recorded on Beckmar generated lab sheet (Appendix I).

Statistical Analysis

Statistical data was generated using ToxCalc 5.0© (Tidepool Scientific software, McKinleyville, CA) and ToxStat© (USEPA, Cincinnati, OH) on a Pentium IV©, computer using Windows 98© Operating System.

Additional Toxicity Test Information

1) Submit copies of all bench sheets and statistical calculations/printouts obtained during the test(s). Data must be presented in tabular form and must include all physical and/or chemical measurements recorded during the test (e.g. temperature, conductivity, total residual chlorine, dissolved oxygen, etc.).

2) Methods/Instrumentation used in chemical analysis:

Dissolved Oxygen/temperature:	YSI Model 52
PH:	Orion Model 720A
Conductivity:	Oakton CON 100 Series
Alkalinity:	Standard Methods Titration
Hardness:	Standard Methods Titration
Total Chlorine Residual:	Fisher-Porter Titration
EPA Acute/Chronic Manual:	5th Acute Edition, 2002

3) Indicate below any other relevant information that may aid in the evaluation of this report. Include any deviations from EPA methodology that was necessary for these tests as well as any sample manipulations that were performed, such as aeration, dechlorination with sodium thiosulfate, etc., and the justification for such manipulations or deviations. Attach additional pages as needed.

4) Sample temperature upon receipt may be greater than 4°C. Samples are picked up immediately after the final grab sample is collected. The samples are refrigerated; however it may be impossible to rapidly drop the effluent to 4°C.

TABLE I
Sampling Summary

Outfall	Sample Type	Volume	Collection Period	Rainfall	Sample Temp
1	Grab	2 gallon	06/06/08 @ 8:00 A.M.	NA	3.0 degrees C
	Grab	2 gallon	06/06/08 @ 8:00 P.M.	NA	3.0 degrees C

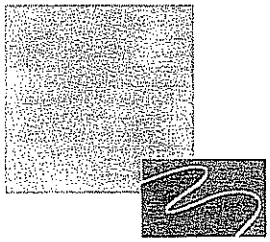
Dates/Times of Test Performance

Species #1: *Ceriodaphnia dubia*

Initiated: 06/07/08 @ 2:00 P.M.
Terminated 06/09/08 @ 2:00 P.M.

Species #2: *Pimephales promelas*

Initiated: 06/07/08 @ 2:00 P.M.
Terminated 06/09/08 @ 2:00 P.M.



Results

In sample "A", Ceriodaphnia dubia test exhibited 100% survival in the control, 100% survival in the 20% dilution, 100% survival in the 40% dilution, 100% survival in the 60% dilution, 100% survival in the 80% dilution, and 95% survival in the 100% dilution.

In sample "B", Ceriodaphnia dubia test ran exhibited 100% survival in the control, 95% survival in the 20% dilution, 100% survival in the 40% dilution, 100% survival in the 60% dilution, 100% survival in the 80% dilution, and 100% survival in the 100% dilution.

For the 48-hour Ceriodaphnia dubia survival test, the LC50s for survival for samples "A" and "B" were greater than 100% effluent, generating an acute toxicity value of less than 1.00 TUa.

In sample "A", the *Pimephales promelas* test ran exhibited 100% survival in the control, 100% survival in the 20% dilution, 100% survival in the 40% dilution, 100% survival in the 60% dilution, 100% survival in the 80% dilution, and 100% survival in the 100% dilution.

In sample "B", the *Pimephales promelas* test exhibited 100% survival in the control, 100% survival in the 20% dilution, 100% survival in the 40% dilution, 100% survival in the 60% dilution, 100% survival in the 80% dilution, and 100% survival in the 100% dilution.

For the 48-hour *Pimephales promelas* survival test, the LC_{50}s for survival for samples "A" and "B" were greater than 100% effluent, generating an acute toxicity value of less than 1.00 TUa.

Appendix I

Ceriodaphnia dubia
Data Sheets

Ceriodaphnia Survival and Reproduction Test-48 Hr Survival

Start Date:	6/7/2008	Test ID:	westa0608	Sample ID:	westa0608
End Date:	6/9/2008	Lab ID:	0044:beckmar environmental	Sample Type:	EFF1-POTW
Sample Date:	6/6/2008	Protocol:	EPAF 94-EPA Freshwater	Test Species:	CD-Ceriodaphnia dubia

Comments: westco am cerio acute june 2008

Conc-%	1	2	3	4
B-Control	1.0000	1.0000	1.0000	1.0000
20	1.0000	1.0000	1.0000	1.0000
40	1.0000	1.0000	1.0000	1.0000
60	1.0000	1.0000	1.0000	1.0000
80	1.0000	1.0000	1.0000	1.0000
100	1.0000	1.0000	0.8000	1.0000

Transform: Arcsin Square Root

Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N
B-Control	1.0000	1.0000	1.3453	1.3453	1.3453	0.000	4
20	1.0000	1.0000	1.3453	1.3453	1.3453	0.000	4
40	1.0000	1.0000	1.3453	1.3453	1.3453	0.000	4
60	1.0000	1.0000	1.3453	1.3453	1.3453	0.000	4
80	1.0000	1.0000	1.3453	1.3453	1.3453	0.000	4
100	0.9500	0.9500	1.2857	1.1071	1.3453	9.261	4

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates non-normal distribution (p <= 0.01)	0.46508	0.884	-3.0206	13.9892
Equality of variance cannot be confirmed				

Grab # A

Toxicity Test Results

Results of *Ceriodaphnia* (Genus) *dubia* (Species) 48 HR. ACUTE (Type / Duration) Toxicity Test

Conducted: 06/07/08 (mm/dd/yy) -- 06/09/08 (mm/dd/yy) Using Effluent from Outfall # 1

Capped	Percent Survival (time intervals used:- DAY) 1	2	3	4	5	6	7	8	# of Young Total	Mean	Dry Weight Total	Mean
Control	100	100										
20% Effluent	100	100										
40% Effluent	100	100										
60% Effluent	100	100										
80% Effluent	100	100										
100% Effluent	100	95										

LC_{50} / IC_{25} Value: >100%

95% Confidence Limits

UL: na

LL: na

UL = Upper Limit
LL = Lower Limit

Calculated TU Estimate * <1.00 Tua (indicate Aute / Chromic)

Permit Limits: 1.00 Tua (Indicate TU_a / TU_c)

If acute test, method used to determine LC50 and Confidence Limit Valued:

Note: $TU_a = 100/LC_{50}$; $TU_c = 100/IC_{25}$

Reference Toxicant Test Results

Species	Date	Time	Duration	Toxicant	Results (LC_{50} / IC_{25})
C. dubia	05/23/08	11:00 A.M.	48 hrs.	NaCl	LC50=2.1865g/l

Beckmar

Client: West Co.

Beckmar Sample Number 200527

Client Contact:

NPDES Permit No:

Sample Collector:

Grab Sample Collected: (1) 8:00 am/pm; 6/6/08 (Date)

(2) ____ am/pm; __/__/__ (Date)

Persons Conducting Test: B. Barker, Barker

Test Period: Beginning Date: 6-7-08 Time: 2P

Ending Date: 6-9-08 Time: 2P

Test Species: C. dubia

Age / Source: < 24 hr.; lab culture

Dilution Water Used: mHSW

Sample ID	Test Container Number	Number of Live Organisms			Dissolved Oxygen (mg/l) / Temp C		pH		Total Alkalinity (mg/l as $CaCO_3$)	Total Hardness (mg/l as $CaCO_3$)	Conductivity (umhos/cm)	Total Residual Chlorine (mg/L)
		0	24	48	0	48	0	48				
C	1	5	5	5	7.8 | 24.0	7.4 | 25.3	8.10	7.79	109.2	130.8	410	<0.01
	2			5								
	3			5								
	4			5								
20%	1			5	7.9 | 24.0	7.7 | 25.1	7.89	8.17				
	2			5								
	3			5								
	4			5								
40%	1			5	8.0 | 24.0	7.6 | 25.1	7.70	8.25				
	2			5								
	3			5								
	4			5								
60%	1			5	8.1 | 24.0	7.8 | 25.0	7.69	8.33				
	2			5								
	3			5								
	4			5								
80%	1			5	8.2 | 24.0	7.9 | 24.9	7.47	8.37				
	2			5								
	3			5								
	4			5								
100%	1			5	8.3 | 24.0	7.8 | 24.9	7.26	8.41	185.2	294.8	830	<0.01
	2			5								
	3			4								
	4	5	5	5 95								

Ceriodaphnia Survival and Reproduction Test-48 Hr Survival

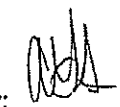
Start Date:	6/7/2008	Test ID:	westb0608	Sample ID:	westb0608
End Date:	6/9/2008	Lab ID:	0044:beckmar environmental	Sample Type:	EFF1-POTW
Sample Date:	6/6/2008	Protocol:	EPAF 94-EPA Freshwater	Test Species:	CD-Ceriodaphnia dubia

Comments: westcp pm cerio acute june 2008

Conc-%	1	2	3	4
B-Control	1.0000	1.0000	1.0000	1.0000
20	1.0000	0.8000	1.0000	1.0000
40	1.0000	1.0000	1.0000	1.0000
60	1.0000	1.0000	1.0000	1.0000
80	1.0000	1.0000	1.0000	1.0000
100	1.0000	1.0000	1.0000	1.0000

			Transform: Arcsin Square Root				
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N
B-Control	1.0000	1.0000	1.3453	1.3453	1.3453	0.000	4
20	0.9500	0.9500	1.2857	1.1071	1.3453	9.261	4
40	1.0000	1.0000	1.3453	1.3453	1.3453	0.000	4
60	1.0000	1.0000	1.3453	1.3453	1.3453	0.000	4
80	1.0000	1.0000	1.3453	1.3453	1.3453	0.000	4
100	1.0000	1.0000	1.3453	1.3453	1.3453	0.000	4

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates non-normal distribution (p <= 0.01)	0.46508	0.884	-3.0206	13.9892
Equality of variance cannot be confirmed				

Reviewed by: 

Grab # B

Toxicity Test Results

Results of *Ceriodaphnia* (Genus) *dubia* (Species) 48 HR. ACUTE (Type / Duration) Toxicity Test

Conducted: 06/07/08 (mm/dd/yy) -- 06/09/08 (mm/dd/yy) Using Effluent from Outfall # 1

Capped	Percent Survival (time intervals used:- DAY) 1	2	3	4	5	6	7	8	# of Young Total	# of Young Mean	Dry Weight Total	Dry Weight Mean
Control	100	100										
20% Effluent	100	95										
40% Effluent	100	100										
60% Effluent	100	100										
80% Effluent	100	100										
100% Effluent	100	100										

LC_{50} / IC_{25} Value: >100%

95% Confidence Limits

UL: na

LL: na

UL = Upper Limit
LL = Lower Limit

Calculated TU Estimate * <1.00 Tua (indicate Aute / Chromic)

Permit Limits: 1.00 Tua (Indicate TU_a / TU_c)

If acute test, method used to determine LC50 and Confidence Limit Valued:

Note: $TU_a = 100/LC_{50}$; $TU_c = 100/IC_{25}$

Reference Toxicant Test Results

Species	Date	Time	Duration	Toxicant	Results (LC_{50} / IC_{25})
C. dubia	05/23/08	11:00 A.M.	48 hrs.	NaCl	LC50=2.1865g/l

Beckmar

Client: West Co.

Beckmar Sample Number 200528

Client Contact:

NPDES Permit No:

Sample Collector:

Grab Sample Collected: (1) 8:10 am/pm; 6/6/08 (Date)

(2) ____ am/pm; __/__/__ (Date)

Persons Conducting Test: B. Backus, Beh

Test Period: Beginning Date: 6-7-08 Time: 2P

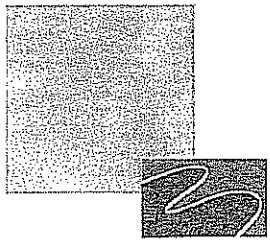
Ending Date: 6-9-08 Time: 2P

Test Species: C. dubia

Age / Source: < 24 hrs.; lab culture

Dilution Water Used: mrsw

Sample ID	Test Container Number	Number of Live Organisms			Dissolved Oxygen (mg/l) / Temp C		pH		Total Alkalinity (mg/l as $CaCO_3$)	Total Hardness (mg/l as $CaCO_3$)	Conductivity (umhos/cm)	Total Residual Chlorine (mg/L)
		0	24	48	0	6-9 48	0	48				
C	1	5	5	5	7.8 | 24.0	6 BB 7.4 | 25.3	8.10	7.79	109.2	130.8	410	<0.01
	2			5								
	3			5								
	4			5								
20%	1			5	7.4 | 24.0	8.0 | 25.0	7.77	8.33				
	2			4								
	3			5								
	4			5 95								
40%	1			5	7.0 | 24.0	8.0 | 24.9	7.69	8.35				
	2			5								
	3			5								
	4			5								
60%	1			5	6.7 | 24.0	8.0 | 24.9	7.47	8.37				
	2			5								
	3			5								
	4			5								
80%	1			5	6.1 | 24.0	8.1 | 24.9	7.24	8.43				
	2			5								
	3			5								
	4			5								
100%	1			5	5.8 | 24.0	8.0 | 24.8	7.02	8.44	182.4	244.8	844	<0.01
	2			5								
	3	↓	↓	5								
	4	5	5	5								



Appendix II

Pimephales promelas
Data Sheets

Larval Fish Growth and Survival Test-48 Hr Survival

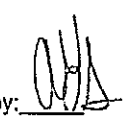
Start Date:	6/7/2008	Test ID:	westafh68	Sample ID:	westafh68
End Date:	6/9/2008	Lab ID:	0044:beckmar environmental	Sample Type:	EFF1-POTW
Sample Date:	6/6/2008	Protocol:	EPAF 94-EPA Freshwater	Test Species:	PP-Pimephales promelas

Comments: westpo am fhm acute june 2008

Conc-%	1	2
B-Control	1.0000	1.0000
20	1.0000	1.0000
40	1.0000	1.0000
60	1.0000	1.0000
80	1.0000	1.0000
100	1.0000	1.0000

			Transform: Arcsin Square Root				
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N
B-Control	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	2
20	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	2
40	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	2
60	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	2
80	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	2
100	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	2

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Normality of the data set cannot be confirmed				
Equality of variance cannot be confirmed				

Reviewed by: 

Grab # A

Toxicity Test Results

Results of *Pimephales* (Genus) *promelas* (Species) 48 HR. ACUTE (Type / Duration) Toxicity Test

Conducted: 06/07/08 (mm/dd/yy) -- 06/09/08 (mm/dd/yy) Using Effluent from Outfall # 1

Test Solution	Percent Survival (time intervals used:- DAY)								# of Young		Dry Weight	
	1	2	3	4	5	6	7	8	Total	Mean	Total	Mean
Control	100	100										
20% Effluent	100	100										
40% Effluent	100	100										
60% Effluent	100	100										
80% Effluent	100	100										
100% Effluent	100	100										

LC_{50} / IC_{25} Value: > 100%

95% Confidence Limits

UL: na
LL: na

UL = Upper Limit
LL = Lower Limit

Calculated TU Estimate * < 1.00 Tua
(indicate Acute/Chronic)

Permit Limits: 1.00 Tua
(Indicate TU_a / TU_c)

If acute test, method used to determine LC50 and Confidence Limit Valued:

Note: $TU_a = 100/LC_{50}$; $TU_c = 100/IC_{25}$

Reference Toxicant Test Results

Species	Date	Time	Duration	Toxicant	Results (LC_{50} / IC_{25})
Pimephales promelas	05/16/08	5:00 P.M.	48 hrs.	NaCl	LC50=7.0095g/l

Beckmar

Client: West Co.

Beckmar Sample Number 200527

Client Contact:

NPDES Permit No:

Sample Collector:

Grab Sample Collected: (1) 8:00 am/pm; 6/6/08 (Date)

(2) ____ am/pm; __/__/__ (Date)

Persons Conducting Test: B. Barker

Test Period: Beginning Date: 6-7-08 Time: 2P

Ending Date: 6-9-08 Time: 2P

Test Species: FHM

Age / Source: 4 daypold Fish Hatch 060308

Dilution Water Used: mltsw

Sample ID	Test Container Number	Number of Live Organisms			Dissolved Oxygen (mg/l) / Temp C		pH		Total Alkalinity (mg/l as $CaCO_3$)	Total Hardness (mg/l as $CaCO_3$)	Conductivity (umhos/cm)	Total Residual Chlorine (mg/L)
		0	24	48	0	48	0	48				
C	1	10	10	10	7.9 | 24.3	6.8 | 25.2	8.01	7.63	109.2	130.8	342	<0.01
	2			10								
20	1			10	8.0 | 24.3	7.1 | 24.8	7.89	7.82				
	2			10								
40	1			10	8.1 | 24.2	7.1 | 24.6	7.77	8.03				
	2			10								
60	1			10	8.2 | 24.1	7.1 | 24.6	7.69	8.11				
	2			10								
80	1			10	8.2 | 24.0	7.0 | 24.5	7.50	8.04				
	2			10								
100	1	↓	↓	10	8.3 | 24.0	6.9 | 24.5	7.26	8.14	185.2	294.8	830	<0.01
	2	10	10	10								

Larval Fish Growth and Survival Test-48 Hr Survival

Start Date:	6/7/2008	Test ID:	westbfh68	Sample ID:	westbfh68
End Date:	6/9/2008	Lab ID:	0044:beckmar environmental	Sample Type:	EFF1-POTW
Sample Date:	6/6/2008	Protocol:	EPAF 94-EPA Freshwater	Test Species:	PP-Pimephales promelas

Comments: westgo pm fhm acute june 2008

Conc-%	1	2
B-Control	1.0000	1.0000
20	1.0000	1.0000
40	1.0000	1.0000
60	1.0000	1.0000
80	1.0000	1.0000
100	1.0000	1.0000

			Transform: Arcsin Square Root				
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N
B-Control	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	2
20	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	2
40	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	2
60	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	2
80	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	2
100	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	2

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Normality of the data set cannot be confirmed				
Equality of variance cannot be confirmed				

Grab # B

Toxicity Test Results

Results of *Pimephales* (Genus) *promelas* (Species) 48 HR. ACUTE (Type / Duration) Toxicity Test

Conducted: 06/07/08 (mm/dd/yy) -- 06/09/08 (mm/dd/yy) Using Effluent from Outfall # 1

Test Solution	Percent Survival (time intervals used:- DAY)								# of Young		Dry Weight	
	1	2	3	4	5	6	7	8	Total	Mean	Total	Mean
Control	100	100										
20% Effluent	100	100										
40% Effluent	100	100										
60% Effluent	100	100										
80% Effluent	100	100										
100% Effluent	100	100										

LC_{50} / IC_{25} Value: > 100%

95% Confidence Limits

UL: na

LL: na

UL = Upper Limit
LL = Lower Limit

Calculated TU Estimate * < 1.00 Tua (indicate Acute/Chronic)

Permit Limits: 1.00 Tua (Indicate TU_a / TU_c)

If acute test, method used to determine LC50 and Confidence Limit Valued:

Note: $TU_a = 100/LC_{50}$; $TU_c = 100/IC_{25}$

Reference Toxicant Test Results

Species	Date	Time	Duration	Toxicant	Results (LC_{50} / IC_{25})
Pimephales promelas	05/16/08	5:00 P.M.	48 hrs.	NaCl	LC50=7.0095g/l

Beckmar

Client: WEST Co.

Beckmar Sample Number 20528

Client Contact:

NPDES Permit No:

Sample Collector:

Grab Sample Collected: (1) 8:00 am/pm; 6/6/08 (Date)

(2) ____ am/pm; __/__/__ (Date)

Persons Conducting Test: B. Bartu

Test Period: Beginning Date: 6-7-08 Time: 2P

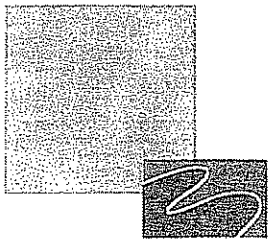
Ending Date: 6-9-08 Time: 2P

Test Species: FHM

Age / Source: 4 dph old Fish Hatch 060308

Dilution Water Used: MHSW

Sample ID	Test Container Number	Number of Live Organisms			Dissolved Oxygen (mg/l) / Temp C		pH		Total Alkalinity (mg/l as $CaCO_3$)	Total Hardness (mg/l as $CaCO_3$)	Conductivity (umhos/cm)	Total Residual Chlorine (mg/L)
		0	24	48	0	48	0	48				
C	1	10	10	10	7.9 | 24.3	6.8 | 25.2	8.01	7.63	109.2	130.8	342	<0.01
	2			10								
20	1			10	7.4 | 24.3	7.2 | 24.5	7.77	7.92				
	2			10								
40	1			10	7.1 | 24.2	6.9 | 24.4	7.69	8.01				
	2			10								
60	1			10	6.7 | 24.1	6.9 | 24.4	7.47	8.08				
	2			10								
80	1			10	6.0 | 24.0	6.8 | 24.4	7.24	8.12				
	2			10								
100	1	↓	↓	10	5.8 | 24.0	6.5 | 24.4	7.02	8.11	182.4	244.8	844	<0.01
	2	10	10	10								



Appendix III

Chain of Custody
Data Sheets

Beckmar Environmental Laboratory
3251 Ruckriegel Parkway
Louisville, KY 40299
(502) 266-6533
Fax: (502) 266-6446
www.beckmarlab.com

CHAIN OF CUSTODY

PAGE 1 OF 1

Beckmar

Client / Company Name: WEST County MSD

Sampled by (print name): Kenneth R Jones

Signature: Kenneth R Jones P/O#:

Beckmar ID #	Collection Date	Collection Time	Sample Type	Sample Point / Description	Number of Containers	Sample Matrix	Bio Monitoring	Coliform, Cultr, Pb/TR, Zn/TR	T-hardness	Preservative
200527	6/6/08	8:00AM	G	Effluent Weir	2	WW	✓			
200528	6/6/08	8:00PM	G	Effluent Weir	2	WW	✓			
200529								X	X	

Tests / Analysis Requested

Relinquished by:	Received by:	Date:	Time:
Kenneth R Jones	Paul Rude	6/8	20:30
Paul Rude	Lab	6/6/08	21:15

FIELD DATA		LABORATORY DATA	
Calibration ID:	pH 2 SU	Temperature Received 3 °C	
D.O. mg/l	Total Chlorine mg/l	HNO_3 PH SU	H_2NO_4 PH SU
Temperature °C	Free Chlorine mg/l	NaOH PH SU	UNP PH SU

Comments:

Sample Types: Composite (C), Grab (G)

Matrix Codes: DW = Drinking Water, WW = Wastewater, GW = Ground Water, SW = Surface Water, S = Soil, SL = Sludge