MSD

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

April 25, 2007

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

RE: Cedar Creek Treatment Plant, KPDES No: KY0098540
Discharge Monitoring Report
March 2007

Dear Ms. Thurman:

Attached are the Discharge Monitoring Report (DMR) and the Monthly Operating Report (MOR) report for the Cedar Creek Wastewater Treatment Plant, for the month of March 2007. Also, included is the 1st quarter bio-monitoring report.

If you have any questions concerning the attached DMR's, please contact me at (502)239-7695.

Sincerely,

James E. Porter Jr.
Process Supervisor Central Region

JEP/Cedar Creek 0307.doc

Enclosures

cc: M. Mudd (DOW Louisville)
P. Burgin
E. Brady
T. Singleton
R. Shaw

Form Approved.
OMB No. 2040-0004

PERMITTEE NAME/ADDRESS *(Include Facility Name/Location if Different)*
NAME MSD CEDAR CREEK STP
ADDRESS 8405 CEDAR CREEK RD
LOUISVILLE KY 40291

FACILITY LOCATION MSD CEDAR CREEK STP
LOUISVILLE KY
ATTN: DEBBIE NEWTON

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

KY0029540	001 E
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD: FROM YEAR 97 MO 03 DAY 01 TO YEAR 97 MO 03 DAY 31

MAJOR
(SUBR LV)
F - FINAL
NEW EXPANSION
EFFLUENT
*** NO DISCHARGE (__) ***

JEFFE

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
OXYGEN, DISSOLVED (DO) 00300 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	******	******		9.8	******	******	(19)	0	3/7	GRAB
	PERMIT REQUIREMENT	******	****** **** ****		7.0 INST MIN	******	******	MG/L		THREE/WEEK	GRAB
PH 00400 1 C 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	******	******		7.1	******	7.5	(12)	0	3/7	GRAB
	PERMIT REQUIREMENT	******	****** **** ****		6.0 MINIMUM	******	9.0 MAXIMUM	SU		THREE/WEEK	GRAB
SOLIDS, TOTAL SUSPENDED 00530 G C 0 RAW SEW/INFLUENT	SAMPLE MEASUREMENT	3848.66	4499.14	(26)	******	125	165	(19)	0	3/7	COMP
	PERMIT REQUIREMENT	REPORT MO AVG	REPORT MX WK AV	LBS/DY	******	REPORT MO AVG	REPORT MX WK AV	MG/L		THREE/WEEK	COMPOS
SOLIDS, TOTAL SUSPENDED 00530 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	49.05	74.64	(26)	******	1	2	(19)	0	3/7	COMP
	PERMIT REQUIREMENT	1876 MO AVG	2815 MX WK AV	LBS/DY	******	30 MO AVG	45 MX WK AV	MG/L		THREE/WEEK	COMPOS
NITROGEN, AMMONIA TOTAL (AS N) 00610 G C 0 RAW SEW/INFLUENT	SAMPLE MEASUREMENT	416.09	472.23	(26)	******	13.4	16.5	(19)	0	3/7	COMP
	PERMIT REQUIREMENT	REPORT MO AVG	REPORT MX WK AV	LBS/DY	******	REPORT MO AVG	REPORT MX WK AV	MG/L		THREE/WEEK	COMPOS
NITROGEN, AMMONIA TOTAL (AS N) 00610 1 2 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	3.41	4.91	(26)	******	0.10	0.10	(19)	0	3/7	COMP
	PERMIT REQUIREMENT	625 MO AVG	938 MX WK AV	LBS/DY	******	10 MO AVG	15 MX WK AV	MG/L		THREE/WEEK	COMPOS
PHOSPHORUS, TOTAL (AS P) 00665 1 2 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	23.73	59.66	(26)	******	0.65	1.32	(19)	0	3/7	COMP
	PERMIT REQUIREMENT	125 MO AVG	193 MX WK AV	LBS/DY	******	2.0 MO AVG	3.0 MX WK AV	MG/L		THREE/WEEK	COMPOS

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE		DATE		
H.J. SCHROBILGEN JR	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.	James E. Roberts Jr	502	540-6000	7	4	20
EXECUTIVE DIRECTOR		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY
TYPED OR PRINTED							

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

Form Approved.
OMB No. 2040-0004

PERMITTEE NAME/ADDRESS *(Include Facility Name/Location if Different)*
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FACILITY LOCATION MSD CEDAR CREEK STP
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ATTN: DEBBIE NEWTON

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

KY0098540	001 2
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD: FROM YEAR 07 MO 03 DAY 01 TO YEAR 07 MO 03 DAY 31

MAJOR
(SUBR LV)
F - FINAL
NEW EXPANSION
EFFLUENT
*** NO DISCHARGE ( ) ***
JEFFE

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FLOW, IN CONDUIT OR THRU TREATMENT PLANT 50050 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	4.01	5.41	(03)	******	******	******		0	C/N	C/N
	PERMIT REQUIREMENT	REPORT MO AVG	REPORT DAILY MX	MGD	******	******	******	**** ****		CONTINUOUS	CONTIN
COLIFORM, FECAL GENERAL 74055 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	******	******		******	3	3	(13)	0	3/7	comp
	PERMIT REQUIREMENT	******	****** ****	****	******	200 30DA GEO	400 #/ 7 DA GEO	100ML		THREE/ WEEK	COMPOS
BOD, CARBONACEOUS 05 DAY, 20C 80082 G 0 0 RAW SEW/INFLUENT	SAMPLE MEASUREMENT	3446.53	3962.31	(26)	******	110	125	(19)	0	3/7	comp
	PERMIT REQUIREMENT	REPORT MO AVG	REPORT MX WK AV	LBS/DY	******	REPORT MO AVG	REPORT MX WK AV	MG/L		THREE/ WEEK	COMPOS
BOD, CARBONACEOUS 05 DAY, 20C 80082 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	68.12	98.13	(26)	******	2	2	(19)	0	3/7	comp
	PERMIT REQUIREMENT	625 MO AVG	938 MX WK AV	LBS/DY	******	10 MO AVG	15 MX WK AV	MG/L		THREE/ WEEK	COMPOS
BOD, CARB-B DAY, 20 DEG C, PERCENT REMVL 80091 K 0 0 PERCENT REMOVAL	SAMPLE MEASUREMENT	******	******		95.2	******	******	(23)	0	1/31	CAL
	PERMIT REQUIREMENT	******	****** ****	****	85 MO MIN	******	******	PER- CENT		ONCE/ MONTH	CALCTD
SOLIDS, SUSPENDED PERCENT REMOVAL 81011 K 0 0 PERCENT REMOVAL	SAMPLE MEASUREMENT	******	******		96.2	******	******	(23)	0	1/31	CAL
	PERMIT REQUIREMENT	******	****** ****	****	85 MO MIN	******	******	PER- CENT		ONCE/ MONTH	CALCTD
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
H. I. SCHROEDER JR
EXECUTIVE 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.

James E. Brit Jr.
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE
AREA CODE 502 NUMBER 540-6000

DATE
YEAR 7 MO 4 DAY 20

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

NAME OF TREATMENT PLANT CEDAR CREEK WTP COUNTY JEFFERSON MONTH OF: March 2007

KPDES PERMIT NUMBER KY0098540 PLANT CAPACITY 7.5 MGD RECEIVING STREAM CEDAR CREEK

DATE	TOTAL FLOW (MILLION GALLONS)	RAW SEWAGE		pH		SETTLEABLE SOLIDS (mg/L)			DISSOLVED OXYGEN (mg/L)			SUSPENDED SOLIDS (mg/L)			5 DAY CBOD (mg/L)			ACTIVATED SLUDGE			AERATION BASIN				SLUDGE HANDLING						FINAL	
		GRIT REMOVED (CUBIC FEET)	SCREENINGS (CUBIC FEET)	RAW	FINAL	RAW	PRIMARY EFFLUENT	FINAL EFFLUENT	STREAM ABOVE	FINAL EFFLUENT	STREAM BELOW	RAW	PRIMARY EFFLUENT	FINAL EFFLUENT	RAW	PRIMARY EFFLUENT	FINAL EFFLUENT	RETURN GAL/DAY X 1000	RETURN MLSS x1000	WASTED GAL/DAY X 1000	DISSOLVED OXYGEN (mg/L)	MLSS (mg/L) x 1000	MLVSS (mg/L) X 1000	SETTLED SLUDGE VOLUME 30 MIN.	SETTLED SLUDGE VOLUME 60 MIN.	RAW GALLONS X 1000	RAW % DRY SOLIDS	RAW % VOLATILE SOLIDS	HAULED % DRY SOLIDS	HAULED % VOLATILE SOLIDS	HAULED WITHDRAWN GALLONS X 1000	NH3-N (mg/L)	FECAL COLIFORM (COLONIES/100ML)
1	9.20											53		2	42		2	3391	5950	600	3.2	2910	2365	600	440							0.10	3
2	5.37			7.4	7.3					9.8								3229	8300	500	3	2690	2255	500	350								
3	5.21																	3154		500				500	340								
4	3.57											87		1	93		2	2690		480				490	340							0.10	3
5	4.88	3	3	7.4	7.3					10.4		100		1	82		2	2345	6690	600	3.4	3115	2655	550	400							0.10	3
6	4.84			7.3	7.5					10.0								2420	7620	504	3	2675	2320	470	380								
7	4.78																	2516	6240	500	3.4	2550	2220	480	380		1.6	1.3					
8	3.46											117		1	104		2	2480	6440	500	3	2775	2405	450	390							0.10	1
9	3.24			7.4	7.4					10.0								1659	6520	495	3.6	2610	2250	460	380								
10	3.39																	1775		510				450	390								
11	3.84											139		1	131		2	1712		485				460	390							0.10	3
12	3.01	3	3	7.3	7.5					10.2		165		1	114		2	1717	5440	444	3.4	2910	2580	500	390							0.10	3
13	3.58			7.4	7.4					9.8								1729	5240	500	3	2885	2550	480	400								
14	3.69																	1703	5790	555	3	2880	2590	460	390		1.6	1.2					
15	4.66											75		1	176		2	1687	6600	570	3.2	2675	2470	450	360							0.10	3
16	4.84			7.5	7.5					10.6								1769	5960	300	3.6	2525	2375	450	350								
17	3.63																	1633		422				510	350								
18	2.46											129		1	115		2	1553		445				510	370							0.10	3
19	4.67	3	3	7.3	7.4					10.2		97		1	69		2	1748	5970	510	3	2925	2665	490	390							0.10	3
20	4.18			7.4	7.2					10.0								1717	7280	500	3	2625	2325	500	350								
21	4.71																	1809	6470	454	3.2	2475	2275	490	350								
22	3.54											119		1	90		2	1795	6250	500	2.8	2580	2280	480	350		1.6	1.2				0.10	1
23	2.80																	1688	5960	450	3	2505	2255	480	340								
24	3.84																	1650		450				490	350								
25	3.49											172		1	133		2	1578		470				500	340							0.10	3
26	2.62	3	3	7.5	7.3					10.4		214		5	174		2	1682	6330	480	2.8	2405	2475	590	380							0.10	3
27	3.17			7.4	7.4					10.0								1756	5730	500	3.2	2770	2380	450	440								
28	3.69											156		2	104		2	1568	5720	500	2.6	2935	2640	470	350							0.10	9
29	3.62			7.1	7.2					10.0								1703	6450	500	2.4	2740	2245	480	350		1.5	1.1					
30	2.72																	1774	6190	500	2.8	2880	2320	470	360								
31	3.45																	1257		500				470	360								
Tot.	#####	12	12															60887															
Avg.	4.00	3	3	7.4	7.4					10.1		125		1	110		2	1964	6325	491.1	3.073	2729	2404	488.1	371		1.575	1.2				0.10	3

RESIDENTIAL

COMMERCIAL

INDUSTRIAL

INDUSTRIAL WASTE POPULATION EQUIVALENT

38141	21567	19857
FLOW	CBOD	TSS

OPERATOR

CERT. NO.

TOTAL NUMBER OF SEWER CONNECTIONS 0

SEWER CONNECTIONS 0 X 4 = 0 SEWERED POPULATION

PLANT TELEPHONE

Form Approved.
OMB No. 2040-0004

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

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FACILITY LOCATION MSD CEDAR CREEK STP
LOUISVILLE KY

ATTN: DEBBIE NEWTON

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

KY0098540	001 Y
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	07	01	01	TO	07	03	31

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

NOTE: Read Instructions before completing this form.

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
HARDNESS, TOTAL (AS CACO3) 00900 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	******	******		******	255	255	(19)	0	1/90	Comp
	PERMIT REQUIREMENT	******	******	**** ****	******	REPORT MO AVG	REPORT DAILY MX	MG/L		QTRLY	COMPOS
CADMIUM, DISSOLVED (AS CD) 01025 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	******	******		******	<0.001	<0.001	(19)	0	1/90	Comp
	PERMIT REQUIREMENT	******	******	**** ****	******	REPORT MO AVG	REPORT DAILY MX	MG/L		QTRLY	COMPOS
COPPER, DISSOLVED (AS CU) 01040 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	******	******		******	0.010	0.010	(19)	0	1/90	Comp
	PERMIT REQUIREMENT	******	******	**** ****	******	REPORT MO AVG	REPORT DAILY MX	MG/L		QTRLY	COMPOS
LEAD, DISSOLVED (AS PB) 01049 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	******	******		******	<0.004	<0.004	(19)	0	1/90	Comp
	PERMIT REQUIREMENT	******	******	**** ****	******	REPORT MO AVG	REPORT DAILY MX	MG/L		QTRLY	COMPOS
ZINC, DISSOLVED (AS ZN) 01090 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	******	******		******	0.038	0.038	(19)	0	1/90	Comp
	PERMIT REQUIREMENT	******	******	**** ****	******	REPORT MO AVG	REPORT DAILY MX	MG/L		QTRLY	COMPOS
ZINC TOTAL RECOVERABLE 01094 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	******	******		******	0.041	0.041	(19)	0	1/90	Comp
	PERMIT REQUIREMENT	******	******	**** ****	******	REPORT MO AVG	REPORT DAILY MX	MG/L		QTRLY	COMPOS
CADMIUM TOTAL RECOVERABLE 01113 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	******	******		******	<0.001	<0.001	(19)	0	1/90	Comp
	PERMIT REQUIREMENT	******	******	**** ****	******	REPORT MO AVG	REPORT DAILY MX	MG/L		QTRLY	COMPOS

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE		
H.J. SCHNOBIN JR. EXECUTIVE 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.	James E. Butler Jr. SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE 502	NUMBER 540-6000	YEAR 07	MO 04	DAY 25

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

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DISCHARGE MONITORING REPORT *(DMR)*

KY0098540	001 Y
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
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MAJOR
(SUBR LV)
F - FINAL JEFFE
METALS/BIOMONITORING/QUARTERLY
EFFLUENT
*** NO DISCHARGE [ ] ***
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LEAD TOTAL RECOVERABLE 01114 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	******	******		******	<0.004	<0.004	(19)	0	1/90	Comp
	PERMIT REQUIREMENT	******	****** ****	****	******	REPORT MO AVG	REPORT DAILY MX	MG/L		STRLY	COMPOS
COPPER TOTAL RECOVERABLE 01119 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	******	******		******	0.014	0.014	(19)	0	1/90	Comp
	PERMIT REQUIREMENT	******	****** ****	****	******	REPORT MO AVG	REPORT DAILY MX	MG/L		STRLY	COMPOS
TOXICITY, FINAL CONC TOXICITY UNITS 51406 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	******	******		******	******	<1.0	(28)	0	1/90	Comp
	PERMIT REQUIREMENT	******	****** ****	****	******	******	1.0 CHRONC DAILY MX	TOXCTY		STRLY	COMPOS
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE	DATE
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COMMENTS AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

Chronic Toxicity Evaluation for the MSD - Cedar Creek Wastewater Treatment Plant

March 2007

Prepared by:

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

Submitted to:

Mr. Eric Brady
Cedar Creek Wastewater Treatment Plant
700 West Liberty St.
Louisville, KY. 40203

Released by: Amanda L. Spalding
Biomonitoring QA Officer 4-17-07

Beckmar

Date of Issue: March 16, 2007

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

RE: Analysis results for: Cedar Creek WWTP: Biomonitoring metals/hardness.

BECKMAR CERTIFICATE OF ANALYSIS # 181319

Sample Date: 3/6/2007
Sample Time: 7:30
Sampled by: Shaun Smith

Parameter	Results	Units	Type	Method	Analyzed Date / Time		Analyst
Hardness (T)	*255*	mg/l	C	EPA 130.2	3/9/2007	16:00	PJB
Cadmium (TR)	*< 0.001*	mg/l	C	EPA 200.7	3/13/2007	14:00	ALS
Cadmium (D)	*< 0.001*	mg/l	C	EPA 200.7	3/13/2007	14:00	ALS
Copper (TR)	*0.014*	mg/l	C	EPA 200.7	3/13/2007	14:00	ALS
Copper (D)	*0.010*	mg/l	C	EPA 200.7	3/13/2007	14:00	ALS
Lead (TR)	*< 0.004*	mg/l	C	EPA 200.7	3/13/2007	14:00	ALS
Lead (D)	*< 0.004*	mg/l	C	EPA 200.7	3/13/2007	14:00	ALS
Zinc (TR)	*0.041*	mg/l	C	EPA 200.7	3/13/2007	14:00	ALS
Zinc (D)	*0.038*	mg/l	C	EPA 200.7	3/13/2007	14:00	ALS

Remarks:

If you have any questions please call.

Thank you,

Joe P. Carney
Quality Control Officer

JPC:dwt

NVIRONMENTAL
ABORATORY

effersontown Business Park
251 Ruckriegel Parkway
effersontown, KY 40299
02.266.6533
AX 502.266.6446

Materials and Methods

Sampling

Composite effluent samples were collected once every other 24 hours (Table I) and delivered to Beckmar Environmental Laboratory. Upon receipt, each 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).

Toxicity Testing

Samples were allowed to warm to room temperature (25°C) and were 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 24 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% effluent samples. 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.

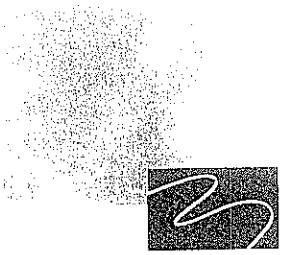
TABLE I
Sampling Summary

Outfall	Sample Type	Volume	Collection Period			Rainfall	Sample Temp
1	Composite	1 gallon	03/05/07 @ 7:30 a.m.	=	03/06/07 @ 7:30 a.m.	0.00"	1.0 degrees C
	Composite	1 gallon	03/07/07 @ 7:45 a.m.	=	03/08/07 @ 7:45 a.m.	0.00"	4.0 degrees C
	Composite	2 gallon	03/09/07 @ 5:40 a.m.	=	03/10/07 @ 5:40 a.m.	0.00"	4.0 degrees C

Dates/Times of Test Performance

Species #1: *Ceriodaphnia dubia*

Initiated: 03/07/07 @ 9:00 A.M.
Renewed daily @ 9:00 A.M.
Terminated 03/14/07 @ 9:00 A.M.



Appendix I

Ceriodaphnia dubia
Data Sheets

Grab # ___

Toxicity Test Results

Results of *Ceriodaphnia* (Genus) *dubia* (Species) 7 day chronic definitive (Type / Duration) Toxicity Test

Conducted: 03/07/07 (mm/dd/yy) -- 03/14/07 (mm/dd/yy) Using Effluent from Outfall # 1

Test Solution	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	100	100	100	100	100		265	26.5		
20% Effluent	100	100	100	100	100	100	100		257	25.7		
40% Effluent	100	90	90	90	90	90	90		245	245		
60% Effluent	100	90	90	90	90	90	90		230	25.6		
80% Effluent	100	100	100	100	100	100	100		259	28.8		
100% Effluent	100	100	100	100	100	100	100		294	29.4		

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

95% Confidence Limits

UL: NA

LL: NA

UL = Upper Limit
LL = Lower Limit

Calculated TU Estimate * < 1.0 Tuc (indicate Aute / Chromic)

Permit Limits: 1.0 TUc (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})
Ceriodaphnia dubia	02/13/07	2:30 P.M.	7 days	NaCl	IC25=0.8589g/l

Client: Cedar Creek Analyst: B. Barker

Test Start -- Date/Time: 3-7-07 9A

Test Stop -- Date/Time: 3-14-07 9A

Data form for *Ceriodaphia dubia* survival and reproduction test

Conc.	Replicate										No. Of Young	No. Of Adults	Analyst
	Day	1	2	3	4	5	6	7	8	9	10			
	1	0	0	0	0	0	0	0	0	0	0	0		RS
	2	0	0	0	0	0	0	XG	0	0	0	0		RS
	3	0	0	0	0	0	0	X	0	0	0	0		RB
60%	4	0	4	5	6	5	6	X	4	5	5	40		BB
	5 3-11	0	BB10	0	0	0	0	X	0	0	0	0		BB
	6	0	11	10	11	11	11	X	8	11	10	83		BB
	7	0	12	15	14	13	15	X	12	14	12	107		BB
	8													
	Total	♂★	27	30	31	29	32	0	24	30	27	230	★male - use 9	25.6 BB

Conc.	Replicate										No. Of Young	No. Of Adults	Analyst
	Day	1	2	3	4	5	6	7	8	9	10			
	1	0	0	0	0	0	0	0	0	0	0	0		RS
	2	0	0	0	0	0	0	0	0	0	0	0		RS
	3	0	0	0	0	0	0	0	0	0	0	0		RS
80%	4	0	5	5	5	3	6	6	4	5	6	45		BB
	5	0	0	0	0	0	0	0	0	0	0	0		BB
	6	0	8	11	14	10	12	11	10	11	9	96		BB
	7	0	14	11	14	13	15	15	12	11	13	118		BB
	8													
	Total	♂0	27	27	33	26	33	32	26	27	28	259	★male - use 9	28.8 BB

Conc.	Replicate										No. Of Young	No. Of Adults	Analyst
	Day	1	2	3	4	5	6	7	8	9	10			
	1	0	0	0	0	0	0	0	0	0	0	0		RS
	2	0	0	0	0	0	0	0	0	0	0	0		RS
	3	0	0	0	0	0	0	0	0	0	0	0		RS
100%	4	6	5	4	6	4	6	5	4	4	2	46		BB
	5	0	0	0	0	0	0	0	0	0	0	0		BB
	6	13	10	12	14	12	10	13	10	9	11	114		BB
	7	15	16	14	14	15	13	15	11	11	10	134		BB
	8													
	Total	~~34~~ 34	31	30	34	31	29	33	25	24	23	294		BB

O = daphnid Alive, no reproduction

= number of neonates released

X = Daphnid dead

X# = Daphnid dead but (#) of neonates released

ND = near death

G- gone, no carcass

Data form for the *Ceriodaphnia dubia* survival and reproduction test.
Routine chemical and physical determinations.

Client: CEDAR CREEK
Test Start: 3-7-07 9:00 A
Test Stop: 3-14-07 9:00 A

Analyst: [illegible]
Analyst: B. Barker
Analyst:

Conc. 60%		Day 1	2	3	4	5	6	7	Remarks
Temp. Degree C.	Initial	24.0	24.0	24.6	24.0	24.2	24.0	24.5	
	Final	24.0	24.1	24.2	24.2	24.0	24.1	24.2	
D. O. mg/l	Initial	8.3	8.0	8.2	8.7	8.6	8.5	8.7	
	Final	8.3	8.1	8.6	8.6	8.5	8.4	8.5	
pH S.U.	Initial	7.63	7.82	7.83	7.71	7.70	7.79	7.79	
	Final	8.57	8.36	8.47	8.45	8.33	8.44	8.38	
Analyst (init.)		BB/MB	MB	MB	MB/BB	BB	BB	MB	

Conc. 80%		Day 1	2	3	4	5	6	7	Remarks
Temp. Degree C.	Initial	24.0	24.0	24.6	24.0	24.2	24.0	24.5	
	Final	24.0	24.0	24.2	24.2	24.0	24.1	24.2	
D. O. mg/l	Initial	8.3	8.1	8.1	8.5	8.8	8.7	8.9	
	Final	8.2	8.2	8.4	8.5	8.4	8.5	8.6	
pH S.U.	Initial	7.53	7.74	7.78	7.64	7.63	7.76	7.72	
	Final	8.61	8.37	8.47	8.46	8.36	8.43	8.46	
Analyst (init.)		BB/MB	MB	MB	MB/BB	BB	BB	MB	

Conc. 100%		Day 1	2	3	4	5	6	7	Remarks
Temp. Degree C.	Initial	24.0	24.0	24.7	24.8	24.2	24.0	24.5	
	Final	24.0	24.0	24.2	24.2	24.0	24.1	24.2	
D. O. mg/l	Initial	8.3	8.7	7.7	9.2	9.1	9.0	9.1	
	Final	8.2	8.0	8.3	8.4	8.3	8.5	8.5	
pH S.U.	Initial	7.42	7.55	7.75	7.51	7.57	7.60	7.59	
	Final	8.39	8.41	8.47	8.46	8.33	8.37	8.33	
Alkalinity (mg/l)		209.6	221.6	381.6	134.4	175.2	168.8	193.6	
Hardness (mg/l)		267.5	250.2	245.7	251.7	238.2	236.7	246.5	
Conductivity (µmhos)		666	658	689	687	693	700	700	
Chlorine (mg/l)		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Analyst (init.)		BB/MB	MB	MB	MB/MB	BB/MB	BB/MB	BB/MB	
		181326	181326	181687	181687	181718	181718	181718	

Cerchron

CHAIN OF CUSTODY

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

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Beckmar

Client / Company Name: MSD Cedar Creek

Sampled by (print name): Shaun Smith

Signature: Shaun Smith

P/O#:

Beckmar ID #	Collection Date	Collection Time	Sample Type	Sample Point / Description	Number of Containers	Sample Matrix	Tests / Analysis Requested: Methyl	Preservative
	3/6/07	730	C	EFF CHANNEL	1	LOW		

Relinquished by:	Received by:	Date:	Time:
Shaun Smith	[illegible]	3-6-07	11:16
[illegible]	Beckmar	3-6-07	12:25

NF

FIELD DATA

Calibration ID:	pH _____ SU	Temperature Received _____ °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

LABORATORY DATA

Comments:

5 0 4.88

7 0 4.78

3 0 3.24

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

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

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PAGE 1 OF 1

Beckmar

Client / Company Name: MSD - Ceda Creek

Sampled by (print name):

Signature: P/O#:

Beckmar ID #	Collection Date	Collection Time	Sample Type	Sample Point / Description	Number of Containers	Sample Matrix	Tests / Analysis Requested: B10-K	Preservative
101718	3-10-07	540 am	C	Eff Channel	2	WW		

Relinquished by:	Received by:	Date:	Time:
Mike Stephenson	Paul Barker	3-10-07	902
Paul Barker	L.L	3-10-07	1005

FIELD DATA

Calibration ID:	pH _____ SU	Temperature _____ °C	Free Chlorine _____ mg/l
D.O. _____ mg/l	Total Chlorine _____ mg/l		

LABORATORY DATA

Temperature Received 4 °C			
HNO_3 PH_____ SU	H_2NO_4 PH_____ SU	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