

September 8, 2015

Steve Parke, Director of Utilities Fort Smith, City of 3900 Kelley Highway Fort Smith, AR 72901

RE: Fort Smith Massard WWTP Inspection (Sebastian Co)

AFIN: 66-01652 NPDES Permit No.: AR0021750

ARR000449

Dear Mr. Parke:

On August 18, 2015, I performed a Compliance Inspection, a No-Exposure Evaluation Inspection, and a Collection System Inspection of the above-referenced facility in accordance with the provisions of the Federal Clean Water Act, the Arkansas Water and Air Pollution Control Act, and the regulations promulgated thereunder. Copies of the inspection reports are enclosed for your records.

Please refer to the "Summary of Findings" section of each of the attached inspection reports and provide a written response for each violation that was noted. This response should be mailed to the attention of the Water Division Inspection Branch at the address at the bottom of this letter or e-mailed to Water-Inspection-Report@adeq.state.ar.us. This response should contain documentation describing the course of action taken to correct each item noted. This corrective action should be completed as soon as possible, and the written response with all necessary documentation (i.e. photos) is due by September 22, 2015.

If I can be of any assistance, please contact me at grayd@adeq.state.ar.us or (479) 424-0333.

Sincerely,

Dannielle Gray

District 4 Field Inspector

Water Division

	V DEO		WATER	R C	DIVISION II	NSP	ECTION	N RE	PORT
	ADLY	AF	IN: 66-01652	PE	RMIT #: AR0021	750		DATE: 8	3/18/2015
ARKANSAS			OUNTY: 66 Seb	ast	tian	PDS 7	#: 086328		MEDIA: WN
Dep	partment of Environmental Quality	GF	'S LAT: 35.340 4	459	LONG: -94.305	533 L	OCATION: E	ntrance)
	FACILITY INFORMAT	ION			IN:	SPEC	TION INFOR	MATION	ı
Fo LOCA	rt Smith Massard WWTP				FACILITY TYPE: 1 - Municipal		30 S - State		
	09 North 9 th St				3 - Satisfactory		Com	on type: pliance	Evaluation
Ва	rling, AR					TRY TIME: 9:30	EXIT TIME: 14:30		FECTIVE DATE:
	RESPONSIBLE OFFIC	CIAL			0/10/2015	J.30	14.50	2/1/20 PERMIT EX	PIRATION DATE:
	:/TITLE							1/31/2	020
Ste	eve Parke / Director of Utilities			-	FAYETTEVILLE	SHAI	E RELATED	· N	
	rt Smith, City of			F		<u> </u>			
MAILI	NG ADDRESS:				FAYETTEVILLE	SHAL	E VIOLATIO	NS: N	
	00 Kelley Highway						TION PARTIC	CIPANT	S
. ,	STATE, ZIP: rt Smith AR 72901				David Shelly, Cl		nerator 479	-452-27	35
_	IL SIIIIIII AR 72901 IE & EXT: / FAX:				dshelly@fsark.c		perator, 470	702 Z7	
	9-784-2342				Gerald Plank, S		isor. 479-784	4-2333	
EMAI					Kerri McCabe, A				pervisor
	arke@FortSmithAR.gov				,		Trate: mope		po. 1.00.
CC	INTACTED DURING INSPECTION:	Yes	8						
	(S=S:	atisfac			UATIONS factory, N=Not Applicable/	Evaluated)		
S	PERMIT	S	FLOW MEASU	URI	EMENT	**	STORMWA	TER	
S	RECORDS/REPORTS	S	LABORATOR'	Υ		М	FACILITY S	SITE RE	VIEW
S	OPERATION & MAINTENANCE	S	EFFLUENT/RI	EC	EIVING WATER	S	SELF-MON	IITORIN	G PROGRAM
S	SAMPLING	S	SLUDGE HAN	NDL	ING/DISPOSAL	**	PRETREAT	TMENT	
**	OTHER:								

SUMMARY OF FINDINGS

The following violations were noted during inspection:

- 1. The recirculation box in between the trickling filters was observed leaking during inspection (see Photo 10). This is a violation of Part III, Section B.1.A of the permit.
- 2. Best Management Practices (BMPs) are not being implemented near the trash bin at the raw water lift station onsite. Specifically, the trash bin that collects solids from incoming wastewater is not covered, bermed, or otherwise protected from stormwater runoff; and therefore, poses a pollution risk (see Photo 17). This is a violation of Part II, Condition 6 of the permit.

GENERAL COMMENTS

I conducted this inspection on August 18, 2015 with the above-referenced inspection participants. Inspection included a facility assessment, a records audit, a collection system evaluation, and a No-Exposure Certification review.

During facility assessment, I observed an open trash bin (see Photo 17) located outside the raw water lift station. This trash bin collects solids that are filtered out at the lift station before wastewater is sent to WWTP. The trash bin is not covered and has a drain hole on the base of the bin. The ground around the bin showed signs of discharge to the ground. This trash bin poses a stormwater pollution risk and threatens the facility's No-Exposure Certification. Failure to eliminate the risk may result in loss of coverage under the No-Exposure Certification.

While onsite, we calculated flow using the primary flow measurement device and compared this to the meter reading (Page 7 of this report). Percent error calculated was 22.41%, which exceeds the maximum deviation allowed by the permit (less than +/-10%). The permittee is encouraged to verify to ensure the accuracy of the digital flowmeter to avoid potential permit violations.

Records were found to be orderly and complete. See Collection System Inspection report for additional information regarding the collection system evaluation. See permit number ARR000449 Inspection report for information regarding No-Exposure Certification verification.

gggggggg	
INSPECTOR'S SIGNATURE: Dannielle Gray	DATE: 8/28/2015
SUPERVISOR'S SIGNATURE: Kerri McCabe	DATE: 9/2/2015

SECTION A: PERMIT VERIFICATION	
PERMIT SATISFACTORILY ADDRESSES OBSERVATIONS	☑S □M □U □NA □NE
DETAILS:	
1. CORRECT NAME AND MAILING ADDRESS OF PERMITTEE:	☑y □n □na □ne
2. NOTIFICATION GIVEN TO EPA/STATE OF NEW DIFFERENT OR INCREASED DISCHARGES:	□Y □N ☑NA □NE
3. NUMBER AND LOCATION OF DISCHARGE POINTS AS DESCRIBED IN PERMIT:	Øy □n □na □ne
4. ALL DISCHARGES ARE PERMITTED:	⊠y □n □na □ne
SECTION B: RECORDKEEPING AND REPORTING EVALUATION	
RECORDS AND REPORTS MAINTAINED AS REQUIRED BY PERMIT	☑S □M □U □NA □NE
DETAILS:	
1. ANALYTICAL RESULTS CONSISTENT WITH DATA REPORTED ON DMRS:	☑y □n □na □ne
2. SAMPLING AND ANALYSES DATA ADEQUATE AND INCLUDE:	⊠s □m □u □na □ne
a. DATES AND TIME(S) OF SAMPLING:	☑y □n □na □ne
b. EXACT LOCATION(S) OF SAMPLING:	☑Y □N □NA □NE
c. NAME OF INDIVIDUAL PERFORMING SAMPLING:	☑Y □N □NA □NE
d. ANALYTICAL METHODS AND TECHNIQUES:	☑y □n □na □ne
e. RESULTS OF CALIBRATIONS:	☑y □n □na □ne
f. RESULTS OF ANALYSES:	☑y □n □na □ne
g. DATES AND TIMES OF ANALYSES:	☑Y □N □NA □NE
h. NAME OF PERSON(S) PERFORMING ANALYSES:	☑Y □N □NA □NE
3. LABORATORY EQUIPMENT CALIBRATION AND MAINTENANCE RECORDS ADEQUATE:	⊠s □m □u □na □ne
4. PLANT RECORDS INCLUDE SCHEDULES, DATES OF EQUIPMENT MAINTENANCE AND REPAIR:	⊠s □m □u □na □ne
5. EFFLUENT LOADINGS CALCULATED USING DAILY EFFLUENT FLOW AND DAILY ANALYTICAL DATA:	☑y □n □na □ne
SECTION C: OPERATIONS AND MAINTENANCE	1
TREATMENT FACILITY PROPERLY OPERATED AND MAINTAINED	☑S □M □U □NA □NE
DETAILS:	
1. TREATMENT UNITS PROPERLY OPERATED:	Øs □m □u □na □ne
2. TREATMENT UNITS PROPERLY MAINTAINED:	☑S ☐M ☐U ☐NA ☐NE
3. STANDBY POWER OR OTHER EQUIVALENT PROVIDED:	Øs □m □u □na □ne
4. ADEQUATE ALARM SYSTEM FOR POWER OR EQUIPMENT FAILURES AVAILABLE:	Øs □m □u □na □ne
5. ALL NEEDED TREATMENT UNITS IN SERVICE:	☑S □M □U □NA □NE
6. ADEQUATE NUMBER OF QUALIFIED OPERATORS PROVIDED:	Øs □m □u □na □ne
7. SPARE PARTS AND SUPPLIES INVENTORY MAINTAINED: Kept at P-Street WWTP maintenance shop.	☑S □M □U □NA □NE
8. OPERATION AND MAINTENANCE MANUAL AVAILABLE:	Øy □n □na □ne
9. STANDARD OPERATING PROCEDURES AND SCHEDULES ESTABLISHED:	☑Y □N □NA □NE
10. PROCEDURES FOR EMERGENCY TREATMENT CONTROL ESTABLISHED:	☑Y □N □NA □NE
11. HAVE BYPASSES/OVERFLOWS OCCURRED AT THE PLANT OR IN THE COLLECTION SYSTEM IN THE LAST YEAR:	□y Øn □na □ne
12. IF SO, HAS THE REGULATORY AGENCY BEEN NOTIFIED:	□Y □N ☑NA □NE
13. HAS CORRECTIVE ACTION BEEN TAKEN TO PREVENT ADDITIONAL BYPASSES/OVERFLOWS:	□Y □N ☑NA □NE
14. HAVE ANY HYDRAULIC OVERLOADS OCCURRED AT THE TREATMENT PLANT:	□y Øn □na □ne
15. IF SO, DID PERMIT VIOLATIONS OCCUR AS A RESULT:	□y □n ☑na □ne

SE	ECTION D: SAMPLING	
ΡI	ERMITTEE SAMPLING MEETS PERMIT REQUIREMENTS	☑S □M □U □NA □NE
DE	ETAILS:	
1.	SAMPLES TAKEN AT SITE(S) SPECIFIED IN PERMIT:	☑Y □N □NA □NE
2.	LOCATIONS ADEQUATE FOR REPRESENTATIVE SAMPLES:	☑Y □N □NA □NE
3.	FLOW PROPORTIONED SAMPLES OBTAINED WHEN REQUIRED BY PERMIT:	□y □n ☑na □ne
4.	SAMPLING AND ANALYSES COMPLETED ON PARAMETERS SPECIFIED IN PERMIT:	☑Y □N □NA □NE
5.	SAMPLING AND ANALYSES PERFORMED AT FREQUENCY SPECIFIED IN PERMIT:	☑Y □N □NA □NE
6.	SAMPLE COLLECTION PROCEDURES ADEQUATE:	☑Y □N □NA □NE
á	a. SAMPLES REFRIGERATED DURING COMPOSITING:	☑Y □N □NA □NE
Ł	D. PROPER PRESERVATION TECHNIQUES USED:	☑Y □N □NA □NE
(CONTAINERS AND SAMPLE HOLDING TIMES CONFORM TO 40 CFR 136:	☑Y □N □NA □NE
7.	IF MONITORING IS PERFORMED MORE OFTEN THAN REQUIRED ARE RESULTS REPORTED ON THE DMR:	□Y □N □NA □NE
SE	ECTION E: FLOW MEASUREMENT	
ΡI	ERMITTEE FLOW MEASUREMENT MEETS PERMIT REQUIREMENTS	☑S □M □U □NA □NE
DI	ETAILS:	
1.	PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED: TYPE OF DEVICE: 24" Parshall fl	ume ØY ON ONA ONE
2.	FLOW MEASURED AT EACH OUTFALL AS REQUIRED:	⊠y □n □na □ne
3.	SECONDARY INSTRUMENTS (TOTALIZERS, RECORDERS, ETC.) PROPERLY OPERATED AND MAINTAINED:	☑Y □N □NA □NE
4.	CALIBRATION FREQUENCY ADEQUATE: Last calibration 12/2014.	☑Y □N □NA □NE
5.	RECORDS MAINTAINED OF CALIBRATION PROCEDURES:	☑Y □N □NA □NE
6.	CALIBRATION CHECKS DONE TO ASSURE CONTINUED COMPLIANCE:	☑Y □N □NA □NE
7.	FLOW ENTERING DEVICE WELL DISTRIBUTED ACROSS THE CHANNEL AND FREE OF TURBULENCE:	⊠y □n □na □ne
8.	FLOW MEASUREMENT EQUIPMENT ADEQUATE TO HANDLE EXPECTED RANGE OF FLOW RATES:	☑Y □N □NA □NE
9.	HEAD MEASURED AT PROPER LOCATION:	☑Y □N □NA □NE
SE	ECTION F: LABORATORY	
PI	ERMITTEE LABORATORY PROCEDURES MEET PERMIT REQUIREMENTS	☑S □M □U □NA □NE
DI	ETAILS:	
1.	EPA APPROVED ANALYTICAL PROCEDURES USED (40 CFR 136.3 FOR LIQUIDS, 503.8(B) FOR SLUDGES) :	☑Y □N □NA □NE
2.	IF ALTERNATIVE ANALYTICAL PROCEDURES ARE USED, PROPER APPROVAL HAS BEEN OBTAINED:	□y □n ☑na □ne
3.	SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT:	☑Y □N □NA □NE
4.	QUALITY CONTROL PROCEDURES ADEQUATE:	☑y □n □na □ne
5.	DUPLICATE SAMPLES ARE ANALYZED ≥10% OF THE TIME:	☑Y □N □NA □NE
6.	SPIKED SAMPLES ARE ANALYZED ≥10% OF THE TIME:	☑Y □N □NA □NE
7.	COMMERCIAL LABORATORY USED:	☑Y □N □NA □NE
á	a. LAB NAME: City of Fort Smith certified lab.	
Ł	D. LAB ADDRESS:	
(c. PARAMETERS PERFORMED:	
8.	BIOMONITORING PROCEDURES ADEQUATE:	☑Y □N □NA □NE
a	a. PROPER ORGANISMS USED:	☑Y □N □NA □NE
k	D. PROPER DILUTION SERIES FOLLOWED:	☑Y □N □NA □NE
(:. PROPER TEST METHODS AND DURATION:	☑Y □N □NA □NE
	d. RETESTS AND/OR TRE PERFORMED AS REQUIRED:	☑Y □N □NA □NE

	<u>.</u>				-01032, Permit #.	AK0021730	
	6: EFFLUENT/R			ATIONS			
BASED ON	N VISUAL OBS	ERVATIONS (DNLY			⊠S □M □	IU □NA □NE
DETAILS:							
OUTFALL #:	OIL SHEEN	GREASE	TURBIDITY	VISIBLE FOAM	FLOATING SOLIDS	COLOR	OTHER
001	None	None	None	None	None	Clear	
SECTION H	I: SLUDGE DIS	POSAL					
SLUDGE D	DISPOSAL MEI	ETS PERMIT F	REQUIREMEN [®]	TS		⊠s □m □	IU □NA □NE
DETAILS:							
1. SLUDGE M	IANAGEMENT ADEQU	ATE TO MAINTAIN EF	FLUENT QUALITY:			⊠s □m	□U □NA □NE
2. SLUDGE R	ECORDS MAINTAINE	O AS REQUIRED BY 4	0 CFR 503:			⊠s □m	□U □NA □NE
3. FOR LAND	APPLIED SLUDGE, T	YPE OF LAND APPLIE	D TO: (E.G., FOREST,	, AGRICULTURAL, PUI	BLIC CONTACT SITE):		
SECTION I:	SAMPLING IN	SPECTION PRO	CEDURES				
	RESULTS WITH	HIN PERMIT R	EQUIREMENT	S			IU ⊠NA □NE
DETAILS:							
1. SAMPLES	OBTAINED THIS INSP	ECTION:				□Y	□N ☑NA □NE
2. TYPE OF S	SAMPLE: GRAB:	COMPOSITE:_ N	METHOD: FREQUE	ENCY:			
3. SAMPLES	PRESERVED:						□N ☑NA □NE
4. FLOW PRO	PORTIONED SAMPLE	S OBTAINED:					□N ☑NA □NE
5. SAMPLE O	BTAINED FROM FACI	LITY'S SAMPLING DE\	/ICE:				□N ☑NA □NE
6. SAMPLE R	EPRESENTATIVE OF	VOLUME AND NATUR	E OF DISCHARGE:				□N ☑NA □NE
7. SAMPLE S	PLIT WITH PERMITTE	E:					□N ☑NA □NE
8. CHAIN-OF-	CUSTODY PROCEDU	RES EMPLOYED:					□N ☑NA □NE
9. SAMPLES	COLLECTED IN ACCO	RDANCE WITH PERM	IT:			□Υ	□N ☑NA □NE
	: STORM WATI						
	ATER MANAG	EMENT MEET	S PERMIT RE	QUIREMENTS	5		IU ⊠NA □NE
DETAILS:							
	PDATED AS NEEDED:_	_					□N ØNA □NE
	INCLUDING ALL DISCH		CE WATERS:				□N ☑NA □NE
	N PREVENTION TEAM						□N ☑NA □NE
	N PREVENTION TEAM): 				□N ☑NA □NE
	OTENTIAL POLLUTAN						□N ☑NA □NE
	OTENTIAL SOURCES						□N ☑NA □NE
	STORM WATER DISCH	IARGES ARE AUTHOR	RIZED:				□N ☑NA □NE
	TRUCTURAL BMPS:	20					ON MA ONE
	ON-STRUCTURAL BMF						ON MA ONE
	PERLY OPERATED AL						ON MA ONE
11. INSPECTIO	ONS CONDUCTED AS	KEQUIKED:				ЦΥ	□n ☑na □ne

		FLOW CALCUL	ATION SHE	ET	
Date: 8/1	8/2015 T	ime: 1011			
Head in Inc	hes: 12.1	Feet: 1.1			
Type & Size	e of Primary Flow I	Measurement D	evice: 24" P	arshall flur	ne
Name & Mo	odel of Secondary	Flow Measurem	ent Device:	Milltronic	s OCM III
Date of last	Calibration of Sec	ondary Flow De	evice: 12/2	2014	
Recorded F	Flow at Date & Tim	e Listed Above:	4.65		(Facility Flow Meter)
	Flow at Date & Tin				
(Flow is calculated	ted using flow charts in: IS	SCO Open Channel F	low Measuremen	t Handbook-5 [™] E	<u>Edition</u>)
% Error =	Recorded Value Calcu	- Calculated lated Value	Yalue X	100	
0/ [4.65	- 5.99	3	400	
% Error =		5.993	X	100	
% Error =	-1.343	X 100			
	5.993				
% Error =	-0.2241	X 100			
% Error =	-22.41	%			
Comments	Exceeds +/-10°	<u>/o</u>			

Inspection Report: Fort Smith Massard WWTP, AFIN: 66-01652, Permit #: AR0021750 DMR Calculation Check

Reporting Period:	From	2015	06	01	_ To	2015	06	30
		Year	Month	Day		Year	Month	Day
Parameter Checked:		TSS	_					
		Loading Mass				Concer		
	3.5 -			3.5 - 4		Mon	-	/1
	IVIO.	Avg Ibs/	aay	Mo. A	vg i	ng/i	7-day Avç	g mg/i
Reported Value:		682			7		9	
Calculated Value:		682.3			6.9		9.3	3
Permit Value:		2505			30		45	j

If calculated value does not equal reported value, explain: Rounding differences

Inspection Report: Fort Smith Massard WWTP, AFIN: 66-01652, Permit #: AR0021750 DMR Calculation Check

Reporting Period:	From	2014	11	01	_ 10 _	2014	11	30
		Year	Month	Day		Year	Month	Day
Parameter Checked:		BOD	-					
		Loading				Concen		
		Mass				Mon	thly	
	Mo.	Avg Ibs/c	lay	Mo. A	vg r	ng/l	7-day Avg	J mg/l

9

9.1

Permit Value: 2502 30 45

453

453.3

Reported Value:

Calculated Value:

If calculated value does not equal reported value, explain: Rounding differences

13

12.6

Water Division Photographic Evidence Sheet Location: Fort Smith Massard WWTP Photographer: Kerri McCabe Date: 8/18/2015 Time: 0943 Witness: Gerald Plank Photo #: 1 Description: Influent.



Photographer:Kerri McCabeDate:8/18/2015Time:0943Witness:Gerald PlankPhoto #:2

Description: Cyclone filter and waste bin at raw water intake.



Water Division Photographic Evidence Sheet Location: Fort Smith Massard WWTP Photographer: Kerri McCabe Date: 8/18/2015 Time: 0945 Witness: Gerald Plank Photo #: 3 Description: Plant overview taken from influent and facing diversion box and trickling filters.



Photographer: Kerri McCabe Date: 8/18/2015 Time: 0945
Witness: Gerald Plank Photo #: 4

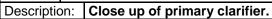




		Water Division Pho	otographic Evi	dence Sheet		
Location:	For	Smith Massard WWTP				
Photograp	her:	Kerri McCabe	Date:	8/18/2015	Time:	0945
Witness:	Gera	d Plank			Photo #:	5
Witness:	Gera				Photo #:	5



Photograp	oher: Kerri McCabe	Date:	8/18/2015	Time:	0950
Witness:	Gerald Plank			Photo #:	6





Water Division Photographic Evidence Sheet Location: Fort Smith Massard WWTP Photographer: Kerri McCabe Date: 8/18/2015 Time: 0954 Witness: Gerald Plank Photo #: 7 Description: Trickling filter.



Photographer:Kerri McCabeDate:8/18/2015Time:0954Witness:Gerald PlankPhoto #:8





Water Division Photographic Evidence Sheet Location: Fort Smith Massard WWTP Photographer: Kerri McCabe Date: 8/18/2015 Time: 0955 Witness: Gerald Plank Photo #: 9 Description: Trickling filter media.



Photographer:Kerri McCabeDate:08/18/2015Time:0955Witness:Gerald PlankPhoto #:10

Description: Leak noted in recirculation box.



Water Division Photographic Evidence Sheet Location: Fort Smith Massard WWTP Photographer: Kerri McCabe Date: 8/18/2015 Time: 0958 Witness: Gerald Plank Photo #: 11

Description: Return Activated Sludge (RAS) chamber.

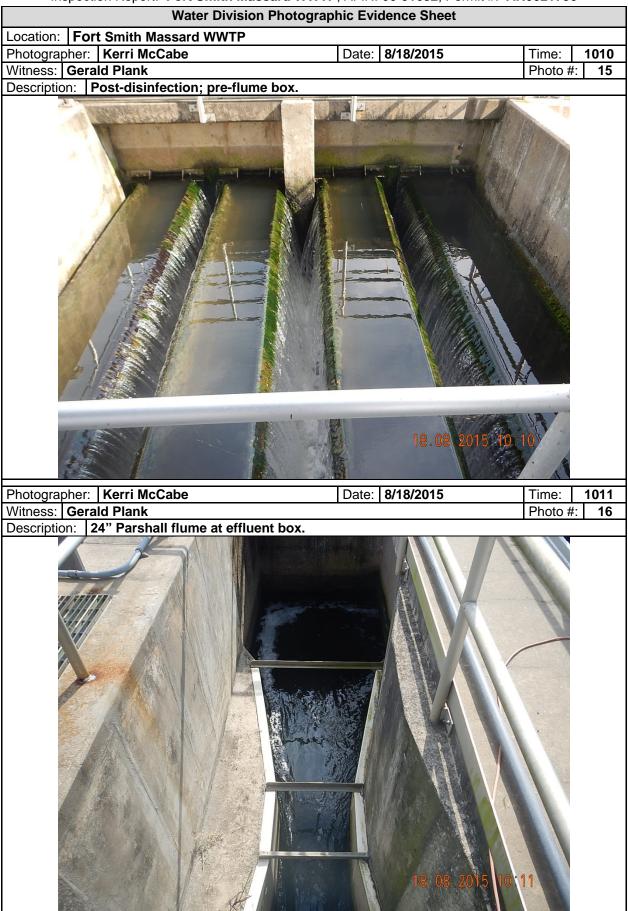


Photographer: Kerri McCabe Date: 8/18/2015 Time: 0958
Witness: Gerald Plank Photo #: 12

Description: Waste Activated Sludge (WAS) chamber.







Inspection Report: Fort Smith Massard WWTP, AFIN: 66-01652, Permit #: AR0021750

Water Division Photographic Evidence Sheet Location: Fort Smith Massard WWTP Photographer: Kerri McCabe Date: 8/18/2015 Time: 1240 Witness: Gerald Plank Photo #: Unprotected trash bin at raw water lift station on facility grounds; note waste trail in Description: front of bin indicates bin and contents are susceptible to stormwater runoff. 08.18.2015 12:40

Google earth

Figure 1: Google Earth image dated Oct 5, 2013 showing Massard WWTP overview.

From: <u>Gray, Dannielle</u>
To: <u>McConnell, Melissa</u>

Subject: FW: P Street/Massard WET Results

Date: Monday, September 14, 2015 2:14:06 PM

Attachments: Massard Plant Bio 2nd Ort 2015.pdf

Please attach to WID 18043 (email and attachment).

Dannielle Gray ADEQ Water Inspector, District 4 (479) 424-0333

From: Floyd, Steve [mailto:floyd@FortSmithAR.gov]

Sent: Wednesday, August 19, 2015 3:53 PM

To: Gray, Dannielle

Subject: P Street/Massard WET Results

FYI

Steve Floyd
Superintendent
Water/Wastewater Operations
3900 Kelley Hwy
Fort Smith, AR 72904
479-784-2331
sfloyd@FortSmithAR.gov





May 05, 2015

RECEIVED

MAY 11 2015

WATER/WASTEWATER

Lance McAvoy City of Fort Smith 3900 Kelley Hwy. Fort Smith, AR 72904

RE: Project: MASSARD BIOMONITORING

Pace Project No.: 60192343

Dear Lance McAvoy:

Enclosed are the analytical results for sample(s) received by the laboratory on April 21, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Alice Flanagan

Alice Flanagan

alice.flanagan@pacelabs.com

Project Manager

Enclosures

cc: Dan Clover, City of Fort Smith, AR







CERTIFICATIONS

Project:

MASSARD BIOMONITORING

Pace Project No.:

60192343

Southeast Kansas Certification IDs 808 West McKay, Frontenac, KS 66763 Arkansas Certification #: 13-012-0 lowa Certification #: 118 Kansas/NELAP Certification #: E-10116 Louisiana Certification #: 03055

Oklahoma Certification #: 2012-051 Texas Certification #: T104704407-13-4 Utah Certification #: KS000212013-3 Minnesota Certification #: 495004

REPORT OF LABORATORY ANALYSIS





SAMPLE SUMMARY

Project:

MASSARD BIOMONITORING

Pace Project No.:

60192343

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60192343001	MASSARD EFFLUENT	Water	04/20/15 08:00	04/21/15 14:00
60192343002	ARKANSAS RIVER	Water	04/20/15 09:00	04/21/15 14:00

REPORT OF LABORATORY ANALYSIS





SAMPLE ANALYTE COUNT

Project:

MASSARD BIOMONITORING

Pace Project No.: 60192343

Lab ID	Sample ID	Method	Analysts	Analytes Reported
60192343001	MASSARD EFFLUENT	EPA 821/R-02/013	TDH	1



ANALYTICAL RESULTS

Project:

MASSARD BIOMONITORING

Pace Project No.

Date: 05/05/2015 10:19 AM

60192343

Pace Project No.: 60192343 Sample: MASSARD EFFLUENT	Lab ID: 60	192343001	Collected: 04/20/1	15 08:00	Received: 0	94/21/15 14:00	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Chronic Toxicity	Analytical Me	thod: EPA 82	21/R-02/013					
Toxicity, Chronic	Complete		1.0	1		04/21/15 14:3	80	
Sample: ARKANSAS RIVER	Lab ID: 60	192343002	Collected: 04/20/	15 09:00	Received: 0	4/21/15 14:00	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
	Analytical Me	thod: EPA 82	21/R-02/013					
Toxicity, Chronic	Complete		1.0	1		04/21/15 14:3	30	





QUALIFIERS

Project:

MASSARD BIOMONITORING

Pace Project No.:

60192343

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

Date: 05/05/2015 10:19 AM





QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project:

MASSARD BIOMONITORING

Pace Project No.:

Date: 05/05/2015 10:19 AM

60192343

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60192343001	MASSARD EFFLUENT	EPA 821/R-02/013	BIO/1804		



Sample Condition Upon Receipt

WO#:60192343

Client Name: Ft Smith	Mussard		0-41	
Courier: Fed Ex UPS USPS Client	D CommerciaN⊋/	, Pace □ Other □	Optional Description	
Tracking #:	Pace Shipping La		Proj Due Date: Proj Name:	
Custody Seal on Cooler/Box Present: Yes X		ct: Yes ⊠ No □	[FIO] Name:	
Packing Material: Bubble Wrap □ Bubble		oam 🗆 None 🕽	Other □	
Thermometer Used: 7-11	Type of Ice: Wet	,	les received on ice, cooling proces	ss has booun
Cooler Temperature: 2.8		(circle one)	Date and initials of person exam	
Temperature should be above freezing to 6°C			contents: NB 4/2/	45149
Chain of Custody present:	Yes DNo D]N/A 1.	·1 · 1	
Chain of Custody filled out:	Yes □No □	ln/A 2.		
Chain of Custody relinquished:	`□Yes XNo □	IN/A 3.		
Sampler name & signature on COC:	Yes □No □	IN/A 4.		
Samples arrived within holding time:	Qres ONO O	IN/A 5.		
Short Hold Time analyses (<72hr):	Stres No	IN/A 6.		
Rush Turn Around Time requested:	☐Yes QNo □	IN/A 7.		
Sufficient volume:	>ØYes □No □	N/A 8.		
Correct containers used:	Skres DNo D	N/A		
Pace containers used:	4	N/A 9.		
Containers intact:		N/A 10.		
Unpreserved 5035A soils frozen w/in 48hrs?	- 1	N/A 11.		
Filtered volume received for dissolved tests?		N/A 12.		
Sample labels match COC:	Yes ONO Q	12.		
Includes date/time/ID/analyses Matrix:	LATT			1
All containers needing preservation have been checked.	□Yes □No □	13,		
All containers needing preservation are found to be in	~	N/A		
compliance with EPA recommendation. Exceptions: VOA, coliform, TOC, O&G, WI-DRO (water),	□Yes □No ဩ	14.		
Phenolics Trip Blank present:	□Yes □W6	Initial when completed	Lot # of added preservative	
	□Yes □No 0	N/A	Hardin and a second a second and a second an	
Pace Trip Blank lot # (if purchased): Headspace in VOA vials (>6mm):	(15.		
von viais (>omm):	□Yes □No IQ	9/A		
	**************************************	16.		
Project sampled in USDA Regulated Area:	□Yes □No □	17. List State:		
Client Notification/ Resolution: Copy C	COC to Client?	/ N Field Data R	equired? Y / N	
Person Contacted:	ate/Time:			
Comments/ Resolution:				
Project Manager Review: AAF				Page 8 of 70
AAF		Date: <u>04/22/15</u>		



CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT, All relevant fields must be completed accurately.

Section A Required Client Information:	Section B Required Project Information:	ation:			Invoice Information:	ıtion:			1		V	7	COL	L
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Kollen	Copy To:	2			Company Name:	-	5 49 8	Smith	REGU	REGULATORY AGENCY	AGENCY		T SHEAT	
五五					Address: Helpu	中	-	AR 7.290M	L	NPDES [GROUND WATER		T DRINKIN	DRINKING WATER
	Purchase Order No.:				Pace Quote (L	UST L	RCRA		OTHER	
Phone: 474-2337 Fax: Requested Due Date/TAT:	Project Name: MASOSC Project Number:		Biomenito . ng		Pace Project Manager: Pace Profile #:				Site L	Site Location STATE:	R			
								Reques	Requested Analysis Filtered (Y/N)	is Filtered	(Y/N)			
Section D Matrix Codes Required Client Information MATRIX 1 GODE	Ses (i)el o	COLLECTED	CTED		<u> </u>	Preservatives		/V /V						
	Ee valid codes to	COMPOSITE	COMPOSITE	COLLECTION	S			ປະຊຸນທີ່ ປະຊຸນທີ່ ປະຊຸນທີ່						
SAMPLE ID OII Wipe (A-Z, 0-9/;-) Air Sample IDs MUST BE UNIQUE Tissue Other	MATRIX CODE (8	TATE	H 47 A 7	ZAMPLE TEMP AT C	# OF CONTAINER H _Z SO ₄	Ngo 2001 HCI HNO3	Na ₂ S ₂ O ₃ Methanol Other Lo					Residual Chlorine	(40 1913 43	5 Cab I.D.
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5								78						
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Acromos River FC12= 0 Mms/	1. K.		-5-											
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7C			SIGNATIBE OF SAMPLER	CAMPIED.	2	N.O.O.	,	DATE Signed		11.10			_	an



Pace Analytical Services, Inc. 9608 Loiret Blvd. Lenexa, KS 66219

> Phone: 913.599.5665 Fax: 913.599.1759

April 30, 2015

Lance McAvoy City of Fort Smith (Massard) 3900 Kelley HWY Fort Smith, AR 72904

Re-

Lab Project Number: 60192343

Client Project ID:

Wet Test

Dear:

Enclosed are the analytical results for sample(s) received by the laboratory. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any question concerning this report, please feel free to contact me.

Sincerely,

Tim Harrell

Tim.Harrell@pacelabs.com

Technical Director



Pace Analytical Services, Inc. 9608 Loiret Blvd. Lenexa, KS 66219

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CHRONIC TOXICITY TEST FOR CITY OF FORT SMITH (Massard)

PERMIT # AR 0021750 AFIN # 66-01652

PERFORMED ON:

Pimephales promelas

and

Ceriodaphnia dubia

PREPARED FOR:

. 30 ... Visit

Lance McAvoy City of Fort Smith (Massard) 3900 Kelley HWY Fort Smith, AR 72904

PREPARED BY:
Pace Analytical Services, Inc.
808 West McKay
Frontenac, KS 66763
1-620-235-0003

April 30, 2015

REPORT OF LABORATORY ANALYSIS





Pace Analytical Services, Inc. 9608 Loiret Blvd. Lenexa, KS 66219

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SUMMARY

A Chronic Whole Effluent Toxicity Test using the 7-day chronic fathead minnows (<u>Pimephales promelas</u>), static renewal larval survival and growth test, and three brood 7-day chronic Cladoceran (<u>Ceriodaphnia dubia</u>), static renewal survival and reproduction test, was conducted on effluent discharge water collected at the CITY OF FORT SMITH (Massard) effluent discharge from April 20, 2015 to April 24, 2015. All the test methods followed are as listed in <u>EPA 821-R-02-013</u>, "Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms."

Statistically significant (p<0.05) mortality is determined by Dunnet's procedure using average percent survival of each test concentration versus the average survival of the controls. If significant mortality occurs, median lethal concentrations (LC50) are calculated using effluent concentrations and their corresponding percent mortality data. The LC50's and the 95% confidence intervals are calculated where appropriate by the Spearman-Karber method. Statistical analysis is accomplished by following steps in EPA 821-R-02-013, November 2002 and by use of Toxstat version 3.4.

In minnow section of testing, it was observed that the effluent had no significant effect on the survival of the larvae at the 9% concentration. No significant mortality was observed in the other effluent concentrations after the 7-day exposure period. The No Observed Effect Concentration (NOEC) was determined to be 9% for survival. The LC50 was estimated to be >9% effluent. No significant reduction in growth was observed in the 9% effluent concentration. The Toxic Units is <1. The IC25 is >9. The NOEC for growth in effluent was determined to be 9%. The PMSD is 11.3.

In Cladoceran section of testing, it was observed that the effluent had no significant effect on the survival of the organisms in the 9% effluent concentration. No significant mortality was observed in the other effluent concentrations after the 7-day exposure period. The No Observed Effect Concentration (NOEC) was determined to be 9% for survival. The LC50 was estimated to be >9% effluent. No significant reduction in reproduction was observed in the 9% effluent concentrations. The Toxic Units is <1. The IC25 is >9. The NOEC for reproduction in effluent was determined to be 9%. The PMSD is 15.7.

The chronic toxicity exhibited by the fathead minnows and the <u>Ceriodaphnia</u> treated by the effluent sampled from April 20 to April 24 from the CITY OF FORT SMITH (Massard) effluent discharge, is acceptable as described in <u>EPA 821-R-02-013</u>.

REPORT OF LABORATORY ANALYSIS





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INTRODUCTION

Pace Analytical was contracted to perform this chronic toxicity test on effluent from the CITY OF FORT SMITH (Massard) effluent discharge. Chronic toxicity was measured using the <u>Pimephales promelas</u> at larval for survival and growth test and the <u>Ceriodaphnia dubia</u> survival and reproduction test described in <u>EPA 821-R-02-013</u>, "Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms." The raw data of the study is stored at Pace Analytical Services, INC. 808 West McKay, Frontenac, KS 66763.

TEST MATERIAL

City of Fort Smith (Massard) personnel collected sampling of the effluent. A sample of the effluent was delivered to Pace by commercial carrier on 4-21-15. Subsequent samples followed by delivery on 4-23-15 and on 4-25-15. All samples were stored at \leq 6° Celsius. Upstream Water was used as a control and also to make the required dilutions in the test as described in <u>EPA 821-R-02-013</u>.

TEST METHODS

Pace used EPA test method 1000.0 for conducting the Fathead Minnow, Pimephales promelas, Larval Survival and Growth Test. EPA test method 1002.0 was used for conducting the Cladoceran, Ceriodaphnia dubia, Survival and Reproduction Test. The tests were conducted to estimate the LC50, NOEC, and LOEC for survival, growth, and reproduction of these test species.

The <u>Pimephales</u> and <u>Ceriodaphnia</u> tests were initiated on 4-21-15 and carried out until 4-28-15. The Pimephales tests were conducted in 500 ml plastic jars with 250 ml of test solution. Eight larvae were placed in each of at least 5 replicates to make a total of 40 larvae per sample concentration. The <u>Ceriodaphnia</u> tests were carried out in 35ml vials containing 25 ml of test solution. One Neonate was placed in each of 10 replicates to make a total of 10 neonates per sample concentration.

TEST ORGANISMS

Organisms used in these tests were cultured at Pace under controlled temperature and photo period conditions and/or were purchased from an external supplier. Pace maintains records of culture techniques for all organisms, whether produced in house or purchased.

REPORT OF LABORATORY ANALYSIS





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RESULTS

REPORT OF LABORATORY ANALYSIS





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TABLE 1

Permittee: CITY OF FORT SMITH (Massard) Effluent discharge.

Date Sampled

No. 1: 4-20-15

8:00

No. 2: 4-22-15

2-15 8:00

No. 3: 4-24-15

8:00

Test Initiated: 14:30

Date: 4-21-15

Dilution Water used: Upstream

FATHEAD MINNOW LARVAE GROWTH AND SURVIVAL (Pimephales promelas)

DATA TABLE FOR GROWTH OF FATHEAD MINNOWS

Effluent Concentration (%)	Averag A		eight in Mi te Chamb C	lligrams in ers D	E	Mean Dry Weight (mg)	CV% *
Upstream 0%	0.400	0.408	0.403	0.378	0.339	0.386	7.38
Dilution 1 3%	0.364	0.384	0.393	0.414	0.400	0.391	4.77
Dilution 2 4%	0.346	0.380	0.379	0.315	0.408	0.366	9.79
Dilution 3 5%	0.399	0.344	0.376	0.363	0.401	0.377	6.43
Dilution 4 7%	0.421	0.440	0.346	0.365	0.385	0.391	9.93
Dilution 5 9%	0.404	0.408	0.382	0.353	0.365	0.382	6.26

^{*} Coefficient of Variation = Standard Deviation X 100 / Mean





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Permittee: CITY OF FORT SMITH (Massard) Effluent discharge.

FATHEAD MINNOW SURVIVAL

Conc. %	Percent Survival in Replicate Chambers				Mean	Percent S	Survival	CV %	
	Α	В	С	D	E	24hr	48hr	7 day	
Upstream 0%	100	100	100	100	87.5	100	100	97.5	4.79
Dilution 1 3%	100	100	100	100	100	100	100	100	0.00
Dilution 2 4%	100	100	100	87.5	100	100	100	97.5	4.79
Dilution 3 5%	100	87.5	100	87.5	100	100	100	95	5.99
Dilution 4 7%	100	100	100	100	100	100	100	100	0.00
Dilution 5 9%	100	100	100	100	100	100	100	100	0.00

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Pace Analytical®
Permitteew @种种OPFFORT SMITH (Massard) Effluent discharge.

CERIODAPHNIA SURVIVAL AND REPRODUCTION

DATA TABLE FOR CERIODAPHNIA YOUNG PRODUCTION

Replicate	Upstream	Dilution 1	Dilution 2	Dilution 3	Dilution 3	Dilution 4
	0%	3%	4%	5%	7%	9%
1	20	22	24	20	22	20
2	22	18	25	26	17	17
3	20	23	18	16	19	23
4	23	20	17	21	22	25
5	20	18	22	20	24	17
6	16	22	15	24	19	23
7	18	20	21	22	14	15
8	24	24	22	18	25	22
9	19	24	24	18	20	23
10	24	16	23	24	23	24
Mean	20.6	20.7	21.1	20.9	20.5	20.9
SD	2.633	2.751	3.348	3.143	3.375	3.446
CV %	12.78	13.29	15.87	15.04	16.46	16.49

6 1 7 7

REPORT OF LABORATORY ANALYSIS





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Permittee: CITY OF FORT SMITH (Massard) Effluent discharge.

CERIODAPHNIA MEAN PERCENT SURVIVAL

Percent Effluent (%)								
Time	Upstream	Upstream Dilution 1 Dilution 2 Dilution 3 Dilution 4 Dilution						
Elapsed	0%	3%	4%	5%	7%	9%		
24 hrs	100	100	100	100	100	100		
48 hrs	100	100	100	100	100	100		
7-day	100	100	100	100	100	100		
SD	0.0	0.0	0.0	0.0	0.0	0.0		
CV %	0.0	0.0	0.0	0.0	0.0	0.0		



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TABLE 2 SUMMARY OF TEST CONDITIONS FOR THE FATHEAD MINNOW (Pimephales promelas) LARVAL SURVIVAL AND GROWTH TEST

1. Test type	Static renewal
2. Temperature	25 degrees Celsius
3. Light quality	Ambient laboratory light
4. Light intensity	Ambient laboratory levels
5. Photoperiod	16 hr light, 8 hr dark
6. Test chamber size	500 ml
7. Test solution volume	250 ml
8. Renewal of test concentrations	Daily
9. Age of test organism	< 24 hours
10. No. larvae/chamber	8
9. No. replicates/concentration	5
12. No. larvae/concentration	40
13. Feeding regime	Feed 0.1 ml newly hatched brine shrimp nauplii three times daily. Larvae are not fed 12 hours prior to fermination of test.
15. Cleaning	Siphon daily, immediately before test solution renewal
15. Aeration	None

REPORT OF LABORATORY ANALYSIS





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TABLE 2 (CONT.)

	322 2 (00:11:)
16. Dilution Water	Upstream
17. Effluent concentrations	0%, 3%, 4%, 5%, 7%, 9%
18. Test duration	7 days
19. Endpoints	Survival and growth
20. Test acceptability	80% or greater survival in the controls, Average dry weight in controls >0.25 mg, Coefficient of variation in the control must not exceed 40%.

TABLE 2 (CONT.) SUMMARY OF TEST CONDITIONS FOR THE CLADOCERAN (Ceriodaphnia dubia) SURVIVAL AND REPRODUCTION TEST

1. Test type	Static renewal
2. Temperature	25 degrees Celsius
3. Light quality	Ambient laboratory light
4. Light intensity	Ambient laboratory levels
5. Photoperiod	16 hr light, 8 hr dark
6. Test chamber size	30 ml
7. Test solution volume	25 ml

TABLE 2 (CONT.)

REPORT OF LABORATORY ANALYSIS





Pace Analytical Services, Inc. 9608 Loiret Blvd. Lenexa, KS 66219

	NCE #60192343	9608 Loiret Blv
ace Analytical®		Lenexa, KS 662 өле: 913.599.56
8. Renewalite ใช้รูเรียงกระการสารา	Daily	Fix: 913.599.17
9. Age of test organism	< 24 hours	
10. No. larvae/chamber	1	
9. No. replicates/concentration	10	
12. No. larvae/concentration	10	
13. Feeding regime	Feed 0.1 ml YCT three times daily. Larvae are not fed 12 hours prior to termination of test.	
15. Cleaning	Siphon daily, immediately before test solution renewal	
15. Aeration	None	
16. Dilution Water	Upstream	
17. Effluent concentrations	0%, 3%, 4%, 5%, 7%, 9%	
18. Test duration	Until 60% or more surviving control females have three broods or a maximum of 8 days.	
19. Endpoints	Survival and Reproduction	
20. Test acceptability	80% or greater survival in the controls, Average reproduction rate of 15 young / adult. Coefficient of variation in the control must not exceed 40%.	

REPORT OF LABORATORY ANALYSIS





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TABLE 2 (SECTION 2)

BIOMONITORING CHRONIC TOXICITY REPORT FATHEAD MINNOW (Pimephales promelas) CHEMICAL PARAMETERS CHART

Permittee: CITY OF FORT SMITH (Massard). Effluent discharge.

ANALYSTS: Pace Analytical Services, Inc.

Timothy Harrell Mike Bollin

SAMPLE NO. 1 COLLECTED: DATE: 4-20-15

SAMPLE NO. 2 COLLECTED: DATE: 4-22-15

SAMPLE NO. 3 COLLECTED: DATE: 4-24-15

TABLE 2 (SECTION 2) INITIAL WATER QUALITY EFFLUENT CONCENTRATION

	Upstream	100%
PH	7.45	7.13
D.O.	8.30	7.70
Temp	25.0	25.0
Alk	74	80
Hard	108	96
Cond	295	361
Chlorine	<0.1	<0.1

* D.O. is reported as mg/L
Alkalinity is reported as mg/L CaCO3
Hardness is reported as mg/L CaCO3
Conductance is reported as umhos
Chlorine is reported as mg/L

REPORT OF LABORATORY ANALYSIS





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TEST WATER QUALITY

24-Hour Water Quality Measurements

Ellion Hotel dans	,		
Effluent	PH	D.O.	Temperature
Concentration (%)		(mg/l)	(C)
0% Upstream	7.84	7.30	25.0
3% Effluent	7.84	7.30	25.0
4% Effluent	7.84	7.30	25.0
5% Effluent	7.84	7.30	25.0
7% Effluent	7.83	7.30	25.0
9% Effluent	7.83	7.30	25.0

48-Hour Water Quality Measurements

TOTIONI VVAICI QUA	nty Mcasarchionto		
Effluent	PH	D.O.	Temperature
Concentration (%)		(mg/l)	(C)
0% Upstream	7.95	7.20	25.2
3% Effluent	7.96	7.20	25.2
4% Effluent	7.97	7.20	25.2
5% Effluent	7.97	7.20	25.2
7% Effluent	7.98	7.20	25.2
9% Effluent	8.00	7.20	25.2

REPORT OF LABORATORY ANALYSIS





Pace Analytical Services, Inc. 9608 Loiret Blvd.

Lenexa, KS 66219 Phone: 913.599.5665 Fax: 913.599.1759

FINAL WATER QUALITY

EFFLUENT CONCENTRATION

	Upstream	9%
рН	7.95	7.98
D.O.	6.80	6.90
Temp	25.1	25.1
Alk	84	90
Hard	140	150
Cond	449	486

* D.O. is reported as mg/L
Alkalinity is reported as mg/L CaCO3
Hardness is reported as mg/L CaCO3
Conductance is reported as umhos

REPORT OF LABORATORY ANALYSIS





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TEST VALIDITY

The <u>Pimephales promelas</u> control survival rate was 97.5%. The mean dry weight (growth) of the <u>Pimephales promelas</u> was determined at 0.386 mg/organism in the controls. The percent coefficient of variation (%CV) values for the fathead minnow control for survival and growth were 4.79 and 7.38. The <u>Ceriodaphnia dubia</u> survival rates were 100 in the control. The <u>Ceriodaphnia in the control produced an average of 20.6 young over the seven-day exposure period. Percent CV values for <u>Ceriodaphnia dubia</u> control survival and reproduction was 0.00 and 12.78. Control data met or exceeded all criteria set out by EPA 821-R-02-013 for test acceptance.</u>

CONCLUSIONS

The No Observed Effect Concentration (NOEC) for <u>Pimephales promelas</u> was 9% for survival and 9% for growth. The No Observed Effect Concentration (NOEC) for <u>Ceriodaphnia dubia</u> was 9% for Survival and 9% for Reproduction. The tests were ran using a synthetic control against effluent concentrations of 3%, 4%, 5%, 7%, and 9%. The effluent sampled on 4-20-15, 4-22-15, and 4-24-15 exhibited acceptable chronic toxicity in <u>Pimephales promelas</u> and in <u>Ceriodaphnia dubia</u> during the exposure period as described in <u>EPA 821-R-02-013</u>.





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APPENDIX A STATISTICAL ANNALYSIS

REPORT OF LABORATORY ANALYSIS



60192343 FT SMITH FATHEAD SURVIVAL

File: 6192343A Transform: ARC SINE(SQUARE ROOT(Y))

Chi-square test for normality: actual and expected frequencies

INTERVAL	<-1.5	-1.5 to <-0.5	-0.5 to 0.5	>0.5 to 1.5	>1.5
EXPECTED OBSERVED	2.010	7.260	11.460 23	7,260	2.010

Calculated Chi-Square goodness of fit test statistic = 19.9412 Table Chi-Square value (alpha = 0.01) = 13.277

Data FAIL normality test. Try another transformation.

Warning - The first three homogeneity tests are sensitive to non-normal data and should not be performed.

60192343 FT SMITH FATHEAD SURVIVAL

File: 6192343A Transform: ARC SINE(SQUARE ROOT(Y))

Shapiro - Wilk's test for normality

SHapiro - Witk's test for Hormaticy

D = 0.038

W = 0.760

Critical W (P = 0.05) (n = 30) = 0.927 Critical W (P = 0.01) (n = 30) = 0.900

Critical W (P = 0.01) (n = 30) = 0.900

7.8 E

Data FAIL normality test. Try another transformation.

Warning The first three homogeneity tests are sensitive to non-normal data and should not be performed.

60192343 FT SMITH FATHEAD SURVIVAL File: 6192343A Transform: ARC SINE(SQUARE ROOT(Y))

Hartley's test for homogeneity of variance Bartlett's test for homogeneity of variance

baltiett's test for homogeneity of variance

These two tests can not be performed because at least one group has zero variance.

Data FAIL to meet homogeneity of variance assumption. Additional transformations are useless.

60192343 FT SMITH FATHEAD SURVIVAL

File: 6192343A Transform: ARC SINE(SQUARE ROOT(Y))

	STEEL'S MANY-ONE R	RANK TEST		Ho:Control<	Treatme	nt
GROUP	IDENTIFICATION	TRANSFORMED MEAN	RANK SUM	CRIT. VALUE	df	SIG
1	UPSTREAM	1.084				
2	3%	1.107	30.00	16.00	5.00	
3	4%	1.084	27.50	16.00	5.00	
4	5%	1.061	25.00	16.00	5.00	
5	7%	1.107	30.00	16.00	5.00	
6	98	1.107	30.00	16.00	5.00	
		ہ کے بید بحورک کورکارک کے بعد بھر بعد کے انکار	*======	****		

Critical values use k = 5, are 1 tailed, and alpha = 0.05

Transform: NO TRANSFORMATION File: 6192343B

Shapiro - Wilk's test for normality

D = 0.020

W = 0.962

Critical W (P = 0.05) (n = 30) = 0.927Critical W (P = 0.01) (n = 30) = 0.900

Data PASS normality test at P=0.01 level. Continue analysis.

Transform: NO TRANSFORMATION File: 6192343B

Bartlett's test for homogeneity of variance Calculated B1 statistic = 2.67

Table Chi-square value = 15.09 (alpha = 0.01, df = 5) Table Chi-square value = 11.07 (alpha = 0.05, df = 5)

Data PASS B1 homogeneity test at 0.01 level. Continue analysis.

File: 6192343B Transform: NO TRANSFORMATION

SUMMARY STATISTICS ON TRANSFORMED DATA TABLE 1 of 2

1 UPSTREAM 5 0.339 0.408 0.386 2 3% 5 0.364 0.414 0.391 3 4% 5 0.315 0.408 0.366 4 5% 5 0.344 0.401 0.377 5 7% 5 0.346 0.440 0.391 6 9% 5 0.353 0.408 0.382	GRP	IDENTIFICATION	N	MIN	MAX	MEAN
3 4% 5 0.315 0.408 0.366 4 5% 5 0.344 0.401 0.377 5 7% 5 0.346 0.440 0.391	1	UPSTREAM	5	0.339	0.408	0.386
5% 5 0.344 0.401 0.377 5 7% 5 0.346 0.440 0.391	2	3%	5	0.364	0.414	0.391
5 7% 5 0.346 0.440 0.391	3	4%	5	0.315	0.408	0.366
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	4	5%	5	0.344	0.401	0.377
6 9% 5 0.353 0.408 0.382	5	7%	5	0.346	0.440	0.391
	6	9%	5	0.353	0.408	0.382

60192343 FT SMITH FATHEAD GROWTH

File: 6192343B Transform: NO TRANSFORMATION

SUMMARY STATISTICS ON TRANSFORMED DATA TABLE 2 of 2

GRP	IDENTIFICATION	VARIANCE	SD	SEM	C.V. %
1	UPSTREAM	0.001	0.028	0.013	7.38
2	3%	0.000	0.019	0.008	4.77
3	4%	0.001	0.036	0.016	9.79
4	5%	0.001	0.024	0.011	6.43
5	7%	0.002	0.039	0.017	9.93
6	9%	0.001	0.024	0.011	6.26

File: 6192343B Transform: NO TRANSFORMATION

ANOVA TABLE

SOURCE	DF	SS	MS	F	
Between	5	0.002	0.000	0.564	
Within (Error)	24	0.020	0.001		
Total	29	0.023			

Critical F value = 2.62 (0.05,5,24) Since F < Critical F FAIL TO REJECT Ho: All equal

File: 6192343B Transform: NO TRANSFORMATION

	DUNNETT'S TEST -	TABLE 1 OF 2	Ho:Control <t< th=""><th>reatment</th><th></th></t<>	reatment	
GROUP	IDENTIFICATION	TRANSFORMED MEAN	MEAN CALCULATED IN ORIGINAL UNITS	T STAT	SIG
1	UPSTREAM	0.386	0.386		
2	3%	0.391	0.391	-0.293	
3	4%	0.366	0.366	1.084	
4	5%	0.377	0.377	0.488	
5	7%	0.391	0.391	-0.314	
6	9%	0.382	0.382	0.173	
Dunne	tt table value = 2.36	(1 Tailed V	alue, $P=0.05$, $df=24$,	5)	

60192343 FT SMITH FATHEAD GROWTH

File: 6192343B Transform: NO TRANSFORMATION

	DUNNETT'S TEST -	TABLE 2 C	F 2 Ho	:Control<	Treatment
GROUP	IDENTIFICATION	NUM OF REPS	Minimum Sig Diff (IN ORIG. UNITS)	% of CONTROL	DIFFERENCE FROM CONTROL
1	UPSTREAM	5			
2	3%	5	0.044	11.3	-0.005
3	4%	5	0.044	11.3	0.020
4	5%	5	0.044	11.3	0.009
5	7%	5	0.044	11.3	-0.006
6	9%	5	0.044	11.3	0.003

FISHER'S EXACT TEST

-			
	=======================================	======== NUMBE	======================================
IDENTIFICATION	ALIVE	DEAD	TOTAL ANIMALS
CONTROL	10	0	10

10

TOTAL 20 0 20

CRITICAL FISHER'S VALUE (10,10,10) (p=0.05) IS 6. b VALUE IS 10. Since b is greater than 6 there is no significant difference between CONTROL and TREATMENT at the 0.05 level.

3%

FISHER'S EXACT TEST

NUMBER OF

ALIVE	DEAD	TOTAL ANIMALS
10	0	10
10	0	10
20	0	20
	ALIVE 10 10	10 0 10 0

CRITICAL FISHER'S VALUE (10,10,10) (p=0.05) IS 6. b VALUE IS 10. Since b is greater than 6 there is no significant difference between CONTROL and TREATMENT at the 0.05 level.

FISHER'S EXACT TEST

	NUMBER OF		
IDENTIFICATION	ALIVE	DEAD	TOTAL ANIMALS
CONTROL	10	0	10
5%	10	0	10

20 20 TOTAL 0

CRITICAL FISHER'S VALUE (10,10,10) (p=0.05) IS 6. b VALUE IS 10. Since b is greater than 6 there is no significant difference between CONTROL and TREATMENT at the 0.05 level.

FISHER'S EXACT TEST

	NOMBER OF		
IDENTIFICATION	ALIVE	DEAD	TOTAL ANIMALS
CONTROL	10	0	10
7%	10	0	10
TOTAL	20	0	20

CRITICAL FISHER'S VALUE (10,10,10) (p=0.05) IS 6. b VALUE IS 10. Since b is greater than 6 there is no significant difference between CONTROL and TREATMENT at the 0.05 level.

FISHER'S EXACT TEST

=======================================	NUMBER OF		
IDENTIFICATION	ALIVE	DEAD	TOTAL ANIMALS
CONTROL	10	0	10
9%	10	0	10
TOTAL	20	0	20

CRITICAL FISHER'S VALUE (10,10,10) (p=0.05) IS 6. b VALUE IS 10. Since b is greater than 6 there is no significant difference between CONTROL and TREATMENT at the 0.05 level.

SUMMARY OF FISHER'S EXACT TESTS

NUMBER NUMBER SIG

MITME DE OF

GROUP	IDENTIFICATION	EXPOSED	DEAD	(P=.05)
	CONTROL	10	0	
1	3%	10	0	
2	4%	10	0	
3	5%	10	0	
4	7%	10	0	
5	9%	10	0	

File: 6192343E Transform: NO TRANSFORMATION

Chi-square test for normality: actual and expected frequencies

					ا تا تاجو به بنا بن بنا بنا تو .
INTERVAL	<-1.5	-1.5 to <-0.5	-0.5 to 0.5	>0.5 to 1.5	>1.5
EXPECTED OBSERVED	4.020	14.520 11	22.920 21	14.520 21	4.020 1

Calculated Chi-Square goodness of fit test statistic = 7.1501 Table Chi-Square value (alpha = 0.01) = 13.277

Data PASS normality test. Continue analysis.

File: 6192343E Transform: NO TRANSFORMATION

Bartlett's test for homogeneity of variance Calculated B1 statistic = 1.08

Table Chi-square value = 15.09 (alpha = 0.01, df = 5) Table Chi-square value = 11.07 (alpha = 0.05, df = 5)

Data PASS B1 homogeneity test at 0.01 level. Continue analysis.

File: 6192343E Transform: NO TRANSFORMATION

SUMMARY STATISTICS ON TRANSFORMED DATA TABLE 1 of 2

GRP	IDENTIFICATION	N	MIN	MAX	MEAN
(*)-(*)				04.000	20 600
1	UPSTREAM	10	16.000	24.000	20.600
2	3%	10	16.000	24.000	20.700
3	4%	10	15.000	25.000	21.100
4	5%	10	16.000	26.000	20.900
5	7%	10	14.000	25.000	20.500
6	98	10	15.000	25.000	20,900

60192343 FT SMITH CERIODAPHNIA DUBIA REPRODU

File: 6192343E Transform: NO TRANSFORMATION

SUMMARY STATISTICS ON TRANSFORMED DATA TABLE 2 of 2

GRP	IDENTIFICATION	VARIANCE	SD	SEM	C.V. %
1	UPSTREAM	6.933	2.633	0.833	12.78
2	3%	7.567	2.751	0.870	13.29
3	48	11.211	3.348	1.059	15.87
4	5%	9.878	3.143	0.994	15.04
5	7%	11.389	3.375	1.067	16.46
6	9%	11.878	3.446	1.090	16.49

File: 6192343E Transform: NO TRANSFORMATION

ANOVA TABLE

******			**************************************	
SOURCE	DF	SS	MS	F
Between	5	2.483	0.497	0.051
Within (Error)	54	529.700	9.809	
Total	59	532.183		

Critical F value = 2.45 (0.05,5,40) Since F < Critical F FAIL TO REJECT Ho: All equal

File: C:\TOXSTAT\6192343E. Transform: NO TRANSFORMATION

	DUNNETT'S TEST -	TABLE 1 OF 2	Ho:Control <t< th=""><th>reatment</th></t<>	reatment
GROUP	IDENTIFICATION	TRANSFORMED MEAN	MEAN CALCULATED IN ORIGINAL UNITS	T STAT SIG
1 2 3 4 5	UPSTREAM 3% 4% 5% 7% 9%	20.600 20.700 21.100 20.900 20.500 20.900	20.600 20.700 21.100 20.900 20.500 20.900	-0.071 -0.357 -0.214 0.071 -0.214
Dunne	tt table value = 2.3	l (1 Tailed	Value, P=0.05, df=40,	5)

60192343 FT SMITH CERIODAPHNIA DUBIA REPRODU

File: C:\TOXSTAT\6192343E. Transform: NO TRANSFORMATION

DUNNETT'S TEST -	TABLE 2 O	F 2 Ho	:Control<	Treatment
GROUP IDENTIFICATION	NUM OF REPS	Minimum Sig Diff (IN ORIG. UNITS)	% of CONTROL	DIFFERENCE FROM CONTROL
1 UPSTREA	4 10	12		
2 3	t 10 , 8 ,	3.236	15.7	-0.100
3 4	t 10	3.236	15.7	-0.500
4 5	t 10	3.236	15.7	-0.300
5 7	} 10	3.236	1 5.7	0.100
6 9	1 0	3,236	15.7	-0.300

Conc. ID		1	2	3	4	5	6
Conc. Tes	ted	0	3	4	5	7	9
Response Response Response Response Response	1 2 3 4 5	.400 .408 .403 .378 .339	.364 .384 .393 .414	.346 .380 .379 .315 .408	.399 .344 .376 .363	.421 .440 .346 .365	.404 .408 .382 .353 .365

*** Inhibition Concentration Percentage Estimate ***

Toxicant/Effluent: Ft Smith Test Start Date: 4/21/15 T Test Ending Date: 4/28/15

Test Species: Fathead

7 Day Test Duration:

DATA FILE:

Conc.	Number Replicates	Concentration	Response Means	Std. Dev.	Pooled Response Means
1	5	0.000	0.386	0.028	0.388
2	5	3.000	0.391	0.019	0.388
3	5	4.000	0.366	0.036	0.379
4	5	5.000	0.377	0.024	0.379
5	5	7.000	0.391	0.039	0.379
6	5	9.000	0.382	0.024	0.379

*** No Linear Interpolation Estimate can be calculated from the input data since none of the (possibly pooled) group response means were less than 75% of the control response mean.

Conc. ID	1	2	3	4	5	6
Conc. Tested	0	3	4	5	7	9
Response 1	20	22	24	20	22	20
Response 2	22	18	25	26	17	17
Response 3	20	23	18	16	19	23
Response 4	23	20	17	21	22	25
Response 5	20	18	22	20	24	17
Response 6	16	22	15	24	19	23
Response 7	18	20	21	22	14	15
Response 8	24	24	22	18	25	22
Response 9	19	24	24	18	20	23
Response 10	24	16	23	24	23	24

*** Inhibition Concentration Percentage Estimate ***

Toxicant/Effluent: Ft Smith

Test Start Date: 4/21/15 Test Ending Date: 4/28/15

Test Species: Dubia

Test Duration: 7 Day

DATA FILE:

Conc.	Number Replicates	Concentration	Response Means	Std. Dev.	Pooled Response Means
1	10	0.000	20.600	2.633	20.825
2	10	3.000	20.700	2.751	20.825
3	10	4.000	21.100	3.348	20.825
4	10	5.000	20.900	3.143	20.825
5	10	7.000	20.500	3.375	20.700
6	10	9.000	20.900	3.446	20.700

^{***} No Linear Interpolation Estimate can be calculated from the input data since none of the (possibly pooled) group response means were less than 75% of the control response mean.



Pace Analytical Services, Inc. 9608 Loiret Blvd. Lenexa, KS 66219

> Phone: 913.599.5665 Fax: 913.599.1759

APPENDIX B CHAIN OF CUSTODY FORMS

REPORT OF LABORATORY ANALYSIS



race Analytical

www.pacelabs.com	Section B	Section C	Page:	of j
Required Client Information:	.0	Invoice Information:		1007
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33		Strengeleu my A. Smith, A. R. J. SPOT	T NPDES F' GROUND WATER F	DRINKING WATER
	Furchase Order No.:		F UST F RCRA	. отнек
Phone: Pax:	Project Name: Maccord Ringson, the 106	Pace Project	Site Location , ,	
Requested Due Date/TAT:		Nonepage:	STATE: TAK	200
		100	Requested Analysis Filtered (Y/N)	0 00 0 0 00 00
Section D Required Client Information MATRIX / CODE	(Ael o	Preservatives	23	
Drinking Water Water Water Product	VY COMPOSITE COMPOSITE ENDIGRAB	l I	(N/A)	
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age 57 of 70

F-ALL-Q-020rev.07, 15-May-2007

Pace Analytical www.poclabs.com

CHAIN-OF-CUSTODY / Analytical Request Document The Chain-of-Custody is a LEGAL DOCUMENT, All relevant fields must be completed accurately.

5	1858217	REGULATORY AGENCY	NPDES F GROUND WATER F DRINKING WATER	UST RCRA OTHER	Site Location D. D.	STATE:	Requested Analysis Filtered (Y/N)	STATES SALES	(N/X) 8	Residual Chlorine Pace Project No./ Lab I.D.	100- 877	- 600 - con								, DATE TIME SAMPLE CONDITIONS	1 1 1 9.0 Ophi Steel		on ()	10 F
Section C	Attention: Jones McRow	of First Smith	A Smith			Pace Profile #:	Requested A	Preservatives Z N N		Unpreserved H ₂ SO ₄ HUO ₃ Na ₂ S ₂ O ₃ Methanol Other IC Other IC	N		(3)						V	TIME ACCEPTED BY LAFFILIATION	0950 CASH Price 4			
Section B Section B Dominated Protect Information	Mr Avou		PPA	Purchase Order No.:	Researd Biomanitering			(F91)	CONPOSITE CONPOSITE ENDIGRAB C=CO		10500 413315 C	C C020 21/02/10 6) 74								RELINQUISHED BY / AFFICIATION DATE	Pachel L. Sharp 18th Shafth 4/22/15 00		SAMPLER NAME AND SIGNATURE	ORIGINAL
Section A	A Conith	toller Han	1		Programmer 2737 Fax: Proj			Section D Matrix Codes Required Client Information MATRIX 1 CODE	Drinking Water Water Waste Water Product Soll/Solid	SAMPLE ID Wine (A-Z, 0-9 /) Air Sample IDs MUST BE UNIQUE Tissue Other	1 Massard Effluent	2 Arvansas Pingr	4	5	9	7	6	10	1 6	ADDITIONAL COMMENTS	FC1, = 1	Kiver F Cla : 0:05 mg/L		



Sample Condition Upon Receipt

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son Contacted:	Pate/Time:	
ent Notification/ Resolution; Copy Co	COC to Client? Y / N Sidd Date:	
oject sampled in USDA Regulated Area:		
	16.	
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ice Trip Blank lot # (if purchased): radspace in VOA vials (>6mm):	15.	
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penolics ip Blank present:	Completed Lot # of added	
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Correct containers used:	Syes Ono On/A	
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Rush Turn Around Time requested:	□Yes QNo □N/A 7	
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Samples arrived within holding time:	Øyes □No □N/A 5.	-
Sampler name & signature on COC:	Xyes □No □N/A 4.	_
Chain of Custody relinquished:	AQYes ONO ONIA 3.	
Chain of Custody filled out:	Yes □No □N/A 2	
Chain of Custody present:	Syes DNo DN/A 1.	1
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Custody Seal on Cooler/Box Present: Yes	Pace Shipping Label Used? Yes No No Proj Name:	
Courier: Fed Ex □ UPS □ USPS □ Client Tracking #:	Proi Due Date:	
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CHAIN-OF-CUSTODY / Analytical Request Document The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

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ADDITIONAL COMMENTS F C12 = 0.03 mg/L Surp Strap									
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ADDITIONAL COMMENTS F C12 = 0.02 mg/L Surp Strap									
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Sample Condition Upon Receipt

Client Name: #4 cm	7	,	4 - 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	
Courier: Fod 5	th			7
Tracking #:	t Commercial	Pace O Other F	Optional	
			Proi Due Date);
Custody Seal on Cooler/Box Present: Yes (1) Packing Material: Bubble Wrap Bubble		: Yes No 🗆	No R Proj Name:	
Thermometer Used: T-2.1/5	· Door C	am Nope		
Cooler Temperature:	Type of Ice: Wet	Blue None Clear	Other	
Temperature should be above freezing to 6°C	(0	ircle one)	Other ples received on ice, cooling proce	ss has begu
Chain of Custody present:			Date and initials of person exar contents:	mining
Chain of Custody filled out:	Alyes DNo DNA	A 1.	77001	5080
Chain of Custody relinquished:	Yes \(\text{No} \(\text{DN} \)	2.		
	Yes No NIA	3.		
Sampler name & signature on COC:	Yes □No □N/A	4.		
Samples arrived within holding time:	(Dyles DNO DN/A	5		
Short Hold Time analyses (<72hr):	AYES DNO DN/A	0,		81
Rush Turn Around Time requested:	□.Yes DNo □N/A	- U.		
sufficient volume:	MYes DNo DN/A			
orrect containers used:	Yes Ono On/A	8.		
ace containers used:	1 #3317904	L		
ontainers intact:		9.		
npreserved 5035A soils frozen w/in 48hrs?	Yes ONO ON/A	10.		
itered volume received for dissolved tests?	OYes ONO DOMA	11.		
	□Yes □No DN/A	12.	*	
ample labels match COC;	Yes ONO ON/A			
ncludes date/time/ID/analyses Matrix:	Cot	13.		
containers needing preservation have been checked.	□Yes □No □N/A			
containers needing preservation are found to be in mpliance with EPA recommendation.	□Yes □No □M/A	14.		
cceptions: VOA, coliform, TOC, O&G, WI-DRO (water), nenolics	□Yes No	Initial when	Lot # of added	
ip Blank present:	□Yes □No V⊅N/A	completed	preservative	
ace Trip Blank lot # (if purchased):	LIES LINO VIN/A	15.		
eadspace in VOA vials (>6mm):	□Yes □No □N/A			
	1	16		
oject sampled in USDA Regulated Area:	□Yes □No ÆNA	16. 17. List State:		
iont Marifia C. I.D. I. I.	/		quired? Y / N	
roon Control I	ate/Time:	. FIELD DATA RE	quiisut j / N	
	ne/Time:			



REFERENCE #60192343

Pace Analytical Services, Inc. 9608 Loiret Blvd. Lenexa, KS 66219

Phone: 913.599.5665 Fax: 913.599.1759

APPENDIX C

REFERENCE TOXICANTS SUMMARY

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc.





REFERENCE #60192343

Pace Analytical Services, Inc. 9608 Loiret Blvd. Lenexa, KS 66219

> Phone: 913.599.5665 Fax: 913.599.1759

The absence of significant control mortality during this test indicated the health of the organisms and indicated that any significant mortality in the test concentrations was not due to contaminants or variations in testing conditions.

Reference toxicity testing is routinely performed by staff members in our biomonitoring - bioassay laboratory.

Start: 4/9/15 10:45

End: 4/16/15 11:00

Reference Toxic	cant (NaCl)	Pimephales	<u>promelas</u>	
10 g/l	40	6	0	0
8 g/l	40	31	24	4
6 g/l	40	38	33	24
4 g/l	40	40	40	39
2 g/l	40	40	40	40

IC25 (5.19 g/l Sodium Chloride)

Survival NOEC: 4.0 g/l

Reference Toxicant (NaCl) Ceriodanhnia Dubia

Treference Toxica	ant (Naci)	Ceriodapiiii	ia Dubia	
Concentration of Toxicant		Avg. # of Live Org	anisms/replicate	
0, , 0,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	0 hrs	24 hrs	48 hrs	7 days
2.5 g/l	10	5	0	0
2.0 g/l	10	10	9	2
1.5 g/l	10	10	10	10
1.0 g/l	10	10	10	10
0.5 g/l	10	10	10	10

IC25 (1.16 g/l Sodium Chloride)

Survival NOEC: 1.5 g/l

Timothy Harrell, Technical Director

REPORT OF LABORATORY ANALYSIS

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REFERENCE #60192343

Pace Analytical Services, Inc. 9608 Loiret Blvd. Lenexa, KS 66219

Phone: 913.599.5665 Fax: 913.599.1759

APPENDIX D STATE AGENCY FORMS

REPORT OF LABORATORY ANALYSIS

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Biomonitoring Form Chronic Toxicity Summary Form Pimephales promelas Chemical Parameters Chart

8:00 8:00 8:00 14:30 4/20/2015 Time: 4/22/2015 Time: 4/24/2015 Time: 4/21/2015 Time: 4/28/2015 Time: Sample No. 1 Collected: Date: Sample No. 2 Collected: Date: Sample No. 3 Collected: Date: Test Begin: Date: Test End: Date: Comments

ч

V)

Dilution: Day:

Comments

ø

S

4

14

Dilution:

Day:

Permittee: City of Fort Smith NPDES No.: AR 0021750 Contact: Lance McAvoy Analyst: Tim Harrell Mike Bollin

6.9

7.85 7.96

7.74 7.94

749

797 7.57

7.84

7.98 69

7.89

7.83

7.48 2.96

7.95

7 84

Temp (C)
DO Initial
DO Final
pH Initial

361

pH Final

7.1 7.93

DO Initial DO Final oH Initial pA Final

Temp (C)

8.4

25.1

7.97

7.94 7.9

Solution Solution			200	7447	200.00	215.00		200		DIT A LINE	2.0	1000		100	1-77	1.74	1.71	
Maintenant Mai	Alkalinity	80								Alkalinity								
Canadectivity 567 September Septem	Hardness	96								Hardness								
Integer	Conductivity									Conductivity								
1 2 3 4 5 6 7 Cottiments 1 2 3 4 CC 25 25 25 25 25 25 25	Chlorine	15						-1		Chlorine								
1 2 3 4 5 6 7 Cottiments Dilution: 7																		
1 2 3 4 5 6 7 Continents 1 2 3 4 4	Dilution:	£.								Dilution:	7							
C 1 2 3 4 5 6 7 Cotiments 1 2 3 4 4 5 6 7 Cotiments 1 2 2 2 3 4 4 5 6 7 Cotiments 2 2 2 2 2 2 2 2 2	Day:									Day:								
CC 25 252 251 252		-	7	w)	4	S	9	7	Confinents		11	7	ю	4	S	9	7	Comments
Doubtial 7.5 7.2 7.1 7.4 8.4 8.4 8.2 Doubtial 7.5 7.2 7.1 7.4 7.5	Temp(C)	25	25.2	25.1	25.2	25.2	24.9	25.1		Temp(C)	25	25.2	25.1	25.2	252	24.9	25.1	
Initial 7.5 7.2 7.1 7.2 7.2 7.9 6.9 DO Final 7.5 7.2 7.1 7.9 Itial 7.84 7.85 7.95 7.95 7.98 DO Final 7.83 7.94 7.94 Itial 7.84 7.96 7.95 7.95 7.98 DO Initial 7.83 7.94 7.94 Initial 7.8 7.9 7.9 7.9 DO Final 7.8 7.9 Itial 7.8 7.9 7.9 7.9 7.9 DO Final 7.8 7.9 Itial 7.84 7.97 7.95 7.9 7.9 DO Initial 7.8 7.9 Itial 7.84 7.97 7.95 7.9 7.9 Itial 7.84 7.97 7.9 7.9 7.9 Itial 7.84 7.97 7.9 7.9 7.9 Itial 7.84 7.97 7.9 7.9 7.9 Itial 7.84 7.9 7.9 7.9 7.9 Italianity 7.9 7.9 7.9 7.9 7.9	DO Initial		8.1	83	8 4	8.4	8.4	8.2		DO Initial		8.2	8	8,3	8.4	8.4	8.1	
134 128 177 1748 1787 178	DO Final	7.3	7.2	7.1	7	7,3	7	69		DO Final	7.3	7.2	7.1	7	7.3	7	8.9	
Table 784 796 793 795 7.95 7.95 7.98 PH Final 7.83 7.98 7.94 7.94 7.94 7.94 7.94 7.94 7.94 7.94 7.95 7.95 7.95 7.95 7.95 7.95 7.95 7.94 7.97 7.95	pH Initial		7.58	7.77	7.48	7.83	7.89	6.2		pff Initial		7.56	7.72	7.5	7.85	79	7 92	
Alkalinity Alk	pH Final	7.84	2.96	7.93	7.96	7.95	7.95	7.98		nH Final	7.83	7.98	7.94	7 94	7.97	7,93	7,95	
Hardness Hardness	Alkalinity									Alkalinity								
outtivity 1 Conductivity Conductivity 8 4 6 7 Comments 1 2 3 4 8 3 4 8 3 4 8 3 4 8 3 4 8 3 4 8 4 8 3 4 8 3 4 8 3 4 8 3 4 8 3 4 8 3 4 8 3 4 8 3 4 8 3 3 4 8 3 3 4 9	Hardness									Hardness								
10 1 2 3 4 5 6 7 Comments 1 2 3 4 1 2 3 4 1 2 3 4 4	Conductivity									Conductivity								
1 2 3 4 5 6 7 Comments 9 1 2 3 4 5 6 7 Comments 9 1 2 3 4 5 6 7 Comments 1 2 3 4 4 5 6 7 Comments 1 2 3 4 4 4 4 4 4 8 4 8 2 3 1 2 2 2 2 2 2 2 2 2	Chlorine									Chlorine								
1 2 3 4 5 6 7 Comments 1 2 3 4 5 1 2 3 4 5 6 7 Comments 1 2 3 4 1 2 3 4 5 6 7 Comments 1 2 3 4 1 2 3 4 3 4 3 4 1 2 3 4 3 4 1 2 3 4 3 4 1 2 3 4 3 1 3 25.2 25.2 24.9 25.1 1 3 8 8 8 8 8 8 1 3 7 7 7 7 7 1 3 7 7 7 7 7 1 3 7 7 7 7 1 3 7 7 7 7 1 4 7 7 7 7 1 5 7 7 7 1 7 7 7 7 1 8 7 7 7 1 9 7 7 7 1 1 2 3 4 1 2 3 4 1 2 3 4 1 3 4 8 1 4 8 7 1 5 7 7 1 7 7 7 1 7 7 7 1 7 7 1 7 7 1 7 7 1 7 7 1 7 7 1 7 7 1 7 7 1 7 1 7 7 1 7 7 1 7 1 7 7 1 7 7 1										000000000000000000000000000000000000000								
1 2 3 4 5 6 7 Comments 1 2 3 4 4 5 6 7 Comments 1 2 3 4 4 4 4 4 4 5 6 7 Comments 1 2 2 2 2 2 2 2 2 2	Dilution:	4								Dilution:	6							
1 2 3 4 5 6 7 Comments 1 2 3 4 4 4 5 1 25 25.2 24.9 25.1 Temp(C) 25 25.2 25.1 25.2 1 2.5 2.5 2.4.9 2.5 2.4.9 DOInital 8.2 8.2 8.3 1 7.3 7.2 7.1 7 7 7 7 6.9 DOInital 7.3 7.2 7.1 7.5 1 7.84 7.75 7.49 7.85 7.89 7.91 DOINITAL 7.83 8 7.94 7.95 2 7.84 7.97 7.95 7.95 7.94 7.97 Alkaliaity Alkaliaity 7.83 8 7.94 7.93 3 4 4 4 4 4 4 4 4 4	Day:									Day:								
1 25 25.2 25.1 25.2 24.9 25.1 Temp(C) 25 25.2 25.1 25.2 25.2			7	E)	4	S	9	7	Comments		-	14	E.	4	'n	9	7	Comments
	Temp (C)	25	25.2	25.1	25.2	25.2	24.9	25.1		Temp(C)	25	25.2	25.1	25.2	25.2	24.9	25.1	Init 100%
73 72 71 7 73 77 69 DOFinal 73 72 71 77 77 77 77 77 77	DO Initial		8.1	8	8.4	8.4	8.4	8.2		DO Initial		8,2	s	8.3	8.4	8,4	20,1	
1	DO Final	7.3	7.2	7.1	7	7.3	7	6.9		DO Final	7.3	7.2	7.1	7	7.3	7	8.9	
7.84 7.97 7.95 7.96 7.95 7.94 7.97 pH Final 7.83 8 7.94 7.95 7.95 7.94 7.95 7.95 7.95 7.95 7.95 7.95 7.95 7.95	pH Initial		7.58	7,75	7.49	7.83	7.89	7.91		oH Initial		7.55	7.71	7.52	7.85	7.91	7.93	
vity	off Final	7.84	7.97	7.93	7.96	7.95	7.94	797		pH Final	7.83	∞	7.94	7.93	7.97	7.92	7.95	
vitv	Alkalinity									Alkalinity								74
virv	Hardness									Hardness								108
	Conductivity									Conductivity								295
	Chlorine									Chlorine							V	<1

Summary Reporting Forms Chronic Biomonitoring Fathcad Minnow Larvae Growth and Survival (Pimephales promelas)

Permittee:

City of Fort Smith

NPDES No.:

AR 0021750

Comparison	Time:	Date:		Time:	Date:
Composite 1 Collected From	8:00	4/19/2015	To	8:00	4/20/2015
Composite 2 Collected From	8:00	4/21/2015	To	8:00	4/22/2015
Composite 3 Collected From	8:00	4/23/2015	To	8:00	4/24/2015

Test initiated:

am/pm

14:30

and the

4/21/2015

Test terminated: am/pm

14:00

date

4/28/2015

Dilution water used:

Receiving X

Reconstituted

Data Table for Survival

Effluent Conc.%	Per	cent Surviv	al in Repli	cate Chaml	here	N/Co.	D		
	\mathbf{A}	В	C	12	DC13		Percent Su	rvival	CV%
0%	100		100		E	24h	48h	7 days	
		100	100	100	87.5	100	100	97.5	4.50
3%	100	100	100	100	100	100			4.79
4%	100	100	100	87.5			100	100	0
5%	100	87.5			100	100	100	97,5	4.79
7%			100	87.5	100	100	100	95	5.99
	100	100	100	100	100	100	100		3.33
9%	100	100	100	100	100			100	0
				100	100	100	100	100	0

Data Table for Survival

Effluent Conc.%	Averag	e Dry Weig	ght in millig Chambers	grams in R	eplicate	Mean Dry Weight mg	
	A	В	С	D	E	weight mg	CV%*
0%	0.4	0.408	0.403	0.378	0.339	0.206	
3%	0.364	0.384	0.393	0.414		0.386	7.38
4%	0.346	0.38	0.379	0.315	0.4	0.391	4.77
5%	0.399	0.344	0.376		0.408	0.366	9.79
7%	0.421	0.44		0.363	0.401	0.377	6.43
9%	0.404	0.408	0.346	0.365	0.385	0.391	9.93
oefficient of varia		dard david	0.382	0.353	0.365	0.382	6.26

Fathead Minnow Larvae Growth and Survival (cont) (Pimephales promelas)

1. Dunnett's Procedure or Steels Many-One Rank Test as appropriate:

Is the mean survival at 7 days significantly different (p=.05) than the control survival for the % effluent corresponding to:

a) Low Flow or Critical Dilution	(7 %):	Yes:	No: X
b) 1/2 Low Flow Dilution	(%):	Yes:	No:

2. Dunnett's Procedure (or appropriate test):

Is the mean dry weight (growth) of the effluent at 7 days significantly different (p=0.05) than the control's dry weight for the % effluent corresponding to (significant non-lethal effects):

a) Low Flow or Critical Dilution	3.	(7 %):	Yes:	No: X
b) 1/2 Low Flow Dilution	i	(%) ;	Yes:	No:

- 3. If you answered NO to 1. a) and 2. a) enter (0) otherwise enter (1):
- 4. If you answered NO to 1. b) and 2. b) enter (0) otherwise enter (1):
- 5. Enter response to item 3 on DMR Form, parameter #TEP6C.
- 6. Enter response to item 4 on DMR Form, parameter #TFP6C.
- 7. Enter percent effluent corresponding to each NOEC below and circle lowest number:

a) NOEC survival:

9 % effluent

b) NOEC reproduction:

9 % effluent

04	ΙO	89	Page
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Ceriodaphnia dubia Chemical Parameters Chart Biomonitoring Form

Chronic Toxicity Summary Form

4/20/2015 Time: 4/22/2015 Time: 4/24/2015 Time: 4/21/2015 Time: 4/28/2015 Time: Sample No. 1 Collected: Date: Sample No. 2 Collected: Date: Sample No. 3 Collected: Date: Test Begin: Date: Test End: Date:

Permittee: City of Fort Smith NPDES No.: AR 0021750 Contact: Lance McAvoy Analyst: Tim Harrell Mike Bollin

8:00 8:00 8:00 14:00

Dilution: Day:	0								Dilution: Day:	ĸ							
	1	7	3	4	5	9	7	Соттепся		1	7	3	4	S	9	7	Соттептя
Temp (C)	25	25.2	25.1	25.2	25.2	24.9	25.1		Temp (C)	25	25.2	25.1	25.2	25.2	24.9	25.1	
DO Initial	7.7	8.1	8	8.4	8.4	8.4	8.2		DO Initial		8.1	80	8.4	8.4	8.4	90.1	
DO Final	7.3	7.2	7.1	7	7.3	7	6.9		DO Final	7.3	7.2	7.1	7	7.3	7	6'9	
pH Initial	7.84	7.58	7.79	7.48	7.83	7.89	7.9		pH Initial		7.57	7.74	7.49	7.85	7.9	7.91	
pH Final	7.62	7.95	7.93	7.96	7.95	7.95	7.98		pH Final	7.84	7.97	7.94	7.95	2.96	7.94	7.97	
Alkalinity	80								Alkalinity								
Hardness	96								Hardness								
Conductivity	361								Conductivity								
Chlorine	<.1						<.1		Chlorine								

Day: 1 1 1 1 1 1 1 1 1 1	7 Comments 25.1 8.2 6.9 7.9 7.98 7.98 7 25.1	(C) iitial itial itial inity ness netivit ine	2 25.2 8.2 7.2 7.36 7.36	3 25.1 8 7.1 7.72 7.94	25.2 8.3 7 7 7.5 7.5 7.94	5 25.2 8.4 7.3 7.85 7.97	6 24.9 8.4 7 7 7.9 7.93	25.1 8.1 6.8 7.92 7.95	Comments
1	7 Comments 25.1 8.2 6.9 7.9 7.98 7.98 7 25.1	(C) initial inial itial inial inial inial inial inial inial inial inity iness		3 25.1 8 7.1 7.7 7.72 7.94	25.2 8.3 7 7.5 7.5	5 25.2 8.4 7.3 7.85 7.97	6 24.9 8.4 7 7 7.9 7.9		Comments
	25.1 8.2 6.9 7.9 7.98 7.98 7 Comments	itial itial itial in al		25.1 8 7.1 7.72 7.94	25.2 8.3 7 7.5 7.94	25.2 8.4 7.3 7.85 7.97	24.9 8.4 7 7.79 7.93	25.1 8.1 6.8 7.92 7.95	
Noticial S.1 S. S.4 S.4 S.2 DO Initial DO	8.2 6.9 7.9 7.98 7 Comments	iitial itial itial inal inal inity ness netivit ine		7.1 7.72 7.94	8.3 7 7.5 7.94	8.4 7.3 7.85 7.97	8.4 7 7.9 7.93	8.1 6.8 7.92 7.95	
inal 7.3 7.2 7.1 7.3 7.6 6.9 DO Final 7.3 itital 7.58 7.77 7.48 7.83 7.89 7.9 DP Initial 7.3 inal 7.84 7.95 7.95 7.95 7.95 7.9 DP Initial 7.83 inity 7.84 7.96 7.95 7.95 7.95 7.98 DP Initial 7.83 inity 8.1 8.4 8.4 8.4 8.4 8.2 DO Initial 7.3 inital 7.58 7.75 7.3 7.8 7.8 7.9 DO Initial 7.3	6.9 7.9 7.98 7 Comments	itial itial inal inity ness uctivit ine		7.1 7.72 7.94	7.5.7.94	7.85	7 7.9 7.93	6.8 7.92 7.95	
titial 7.58 7.77 7.48 7.83 7.89 7.9 pH Initial 7.83 inal 7.84 7.96 7.95 7.95 7.95 7.98 7.98 pH Initial 7.83 inity necivit recivit recivi	7.98 7.98 7 Comments	itial nal nity ness uctivit ine		7.72	7.94	7.97	7.93	7.92	
1.84 7.84 7.96 7.95 7.95 7.95 7.98 pH Final 7.83 1.81 1.81 1.82 1.8	7.98 7 Comments	nat nity ness uctivit ine		7,94	7.94	76.7	7.93	7.95	
Alkalinity Alkalinita Alkalinity Alk	7 Comments	ness uctivit ine ion:							
Hardness	7 Comments	ness uctivit ine ion:							
netivit A Conductivit Conductivit ine 1 2 3 4 5 6 7 Comments 9 inital 7.3 7.2 7.3 7	7 Comments 25.1	ine ine ion:							
ine 4 5 6 7 Comments Dilution: 9 i(C) 25 25.1 25.2 25.2 25.2 25.2 25.3 </td <th>7 Comments 25.1</th> <td>ine ion:</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	7 Comments 25.1	ine ion:							
initial 7.58 7.75 7.49 7.83 7.89 7.91 Dilution: 9 Dilu	7 Comments	ion:							
ion: 4 5 6 7 Comments Day: I, C, S,	7 Comments	ion:	4						
1 2 3 4 5 6 7 Comments 1 1 1 1 2 3 4 5 6 7 Comments 1 1 1 1 1 1 1 1 1	7 Comments		6						
1 2 3 4 5 6 7 Comments 1 1 1 2 25.2 25.2 24.9 25.1 Temp (C) 25 25 25 25.2 24.9 25.1 Temp (C) 25 25 25 25 25 25 25 2	7 Comments 25.]						0		
1 25 25.2 25.2 25.2 24.9 25.1 25.2 25.2 25.2 25.2 25.3 Temp (C) 25 1 8.1 8 8.4 8.4 8.4 8.2 BO Initial 7.3 7 7.2 7.1 7 7.3 7 6.9 BO Final 7.3 7.58 7.75 7.49 7.83 7.91 BH Initial 9.9	25.1		7	2	4	ις.	9	7	Comments
I 8.1 8 8.4 8.4 8.2 DO Initial 7.3 7.2 7.1 7 7.3 7 6.9 DO Final 7.3 7.3 7.8 7.8 7.91 DH Initial 7.3			25.2	25.1	25.2	25.2	24.9	25.1	Init. 100%
7.3 7.2 7.1 7 7.3 7.89 7.91 DO Final 7.3 7.89 7.91 DH Initial	8.2	nitial	8.2	8	8.3	8.4	8.4	8.1	
7.58 7.75 7.49 7.83 7.89 7.91 DH Initial			7.2	7.1	7	7.3	7	6.8	
	7.91	nitial	7.55	7.71	7.52	7.85	7.91	7.93	
pH Final 7.84 7.97 7.93 7.96 7.95 7.94 7.97 pH Final 7.83	7.97		8	7.94	7.93	7.97	7.92	7.95	
Alkalinity Alkalinity Alkalinity	Alka	inity							7.4
Hardness Hardness	Har	ness							108
Conductivit Conductivit	Con	uctivit							295
Chlorine Chlorine	Chlo	ine						- 1 >	<1

Summary Reporting Forms Chronic Biomonitoring

Ceriodaphnia dubia Survival and Reproduction

Permittee:

City of Fort Smith

NPDES No.:

AR 0021750

		Time:	Date:		Time:	Date:
Composite 1 Collected	From	8:00	4/19/2015	To	8:00	4/20/2015
		,				
Composite 2 Collected	From	8:00	4/21/2015	To	8:00	4/22/2015
Composite 3 Collected	From	8:00	4/23/2015	To	8:00	4/24/2015

Test initiated:

am/pm

14:30

date

4/21/2015

Test terminated: am/pm

14:00

date

4/28/2015

Dilution water used:

Receiving X

Reconstituted

Percent Survival

Time of Reading			Percent	Effluent		
	Up 0	3	4	5	7	9
24h	100	100	100	100	100	100
48h	100	100	100	100	100	100
End of test	100	100	100	100	100	100

Number of Young Produced per Female @ End of Test

Rep	UP 0	3	4	5	7	9
A	20	22	24	20	22	20
В	22	18	25	26	17	17
C	20	23	18	16	19	23
D	23	20	17	21	22	25
E	20	18	22	20	24	17
F	16	22	15	24	19	23
G	18	20	21	22	14	15
Н	24	24	22	18	25	22
I	19	24	24	18	20	23
J	24	16	23	24	23	24
Mean	20.6	20.7	21.1	20.9	20.5	20.9
CV%*	12.78	13.29	15.87	15.04	16.46	16.49

^{*}coefficient of variation = standard deviation x 100/mean.

<u>Ceriodaphnia dubia</u> Survival and Reproduction (cont)

1	Rich	er's	Exact	Test
	T. 1911	U 3	LAGUL	1 031

Is the mean survival at the end of the test significantly different (p=.05) than the control survival for the % effluent corresponding to (lethality):

a) Low Flow or Critical Dilution (7%): Yes: No: X b) ½ Low Flow Dilution (%): Yes: No:

2. Dunnett's Procedure or Steel's Many-One Rank Test as appropriate:

Is the mean number of young produced per female significantly different (p=.05) than the control's number of young per female for the % effluent corresponding to (significant non-lethal effects):

a) Low Flow or Critical Dilution (7 %): Yes: No: X
b) ½ Low Flow Dilution (9%): Yes: No:

- 3. If you answered NO to 1. a) and 2. a) enter (0) otherwise enter (1):
- 4. If you answered NO to 1. b) and 2. b) enter (0) otherwise enter (1):
- 5. Enter response to item 3 on DMR Form, parameter #TEP3B.
- 6. Enter response to item 4 on DMR Form, parameter #TFP3B.
- 7. Enter percent effluent corresponding to each NOEC below and circle lowest number:

a) NOEC survival:

9 % effluent

b) NOEC reproduction:

9 % effluent

From: Gray, Dannielle To: McConnell, Melissa

Subject: FW: P Street/Massard DMR"s/Lab Data Date: Monday, September 14, 2015 2:14:36 PM

Attachments: 20150819145602.pdf

Please attach to WID 18043 (email and attachment).

Dannielle Gray ADEQ Water Inspector, District 4 (479) 424-0333

From: Floyd, Steve [mailto:floyd@FortSmithAR.gov]

Sent: Wednesday, August 19, 2015 3:18 PM

To: Gray, Dannielle

Subject: P Street/Massard DMR's/Lab Data

Dannielle,

Attached is the information requested. I will have Lance forward the WET results when he returns to the office.

Steve Floyd Superintendent Water/Wastewater Operations 3900 Kelley Hwy Fort Smith, AR 72904 479-784-2331

sfloyd@FortSmithAR.gov

DISCHARGE MONITORING REPORT (DMR)

OMB No. 2040-0004 Form Approved

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

FORT SMITH, CITY OF - "P" STREET WWTP ADDRESS: NAME:

FORT SMITH, AR 72904 3900 KELLEY HWY

FORT SMITH, CITY OF - "P" STREET WWTP FACILITY:

FORT SMITH, AR 72901 13 NORTH "P" STREET LOCATION:

ATTN: STEVE PARKE, DIRECTOR

PARAMETER

Oxygen, dissolved [DO]

00300 1 0 Effluent Gross

DISCHARGE NUMBER MM/DD/YYYY 05/31/2014 MONITORING PERIOD PERMIT NUMBER MM/DD/YYYY 05/01/2014 AR0033278

DMR Mailing ZIP CODE:

72904

MAJOR

001-MONTHLY-TRTD MUNICIPAL WASTEWATER

Comp2 Comp2 Comp2 SAMPLE TYPE COMPOS COMPOS Grab Grab COMPOS GRAB GRAB No Discharge FREQUENCY OF ANALYSIS mo. Three Per Monthly Week Daily Daily Daily 1/7 5/7 1/1 1/1 ŠΜ 0 0 0 0 * External Outfall UNITS mg/L mg/L mg/L mg/L SC 7.5 7.DA.AVG Req. Mon. 7 DA AVG MAXIMUM 7 DA AVG VALUE QUALITY OR CONCENTRATION : 45 7.4 2.6 5.6 9 MO AVG Req. Mon. MO AVG MO AVG VALUE ***** 5.6 li 30 Ŋ 2 INST MIN MINIMUM VALUE 6.3 6.5 **** i **** i ***** 9 UNITS : ***** 在水水水水 **** þ/q p/q p/q QUANTITY OR LOADING VALUE i **** : ***** ***** ***** i ***** **** Req. Mon. MO AVG MO AVG VALUE MO AVG ***** ***** 3002 . 500 420 149 224 PERMIT REQUIREMENT SAMPLE MEASUREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT REQUIREMENT SAMPLE MEASUREMENT PERMIT SAMPLE

-		_	7-9	MM/
Daily		TELEPHONE	479-784-2231 06-2	NUMBER
		TELEF	9-784	AREA Code
****				Ľ
*****		1	EXECUTIVE OFFICER	D'AGENT
****	,	1	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR	AUTHORIZED AGENT
表面积			SIGN	
MGD		red under my direction or nnel properly gather and is who manage the	nformation submitted Is, e that there are ne and imprisonment for	
Req. Mon. 7 DA AVG		and all attachments were prepar ed to assure that qualified perso y inquiry of the person or persor	r gathering the information, the incurate, and complete. I am aware tion, including the possibility of fi	
Req. Mon. MO AVG		carify under pensity of law that this document and all attachments were prepared under my direction or supervision in accordance with a system deligated to assure that qualified personnel property gather and eventuals the information submitted. Based on my Inquiry of the person or persons who manage the	pystem, or those presents already the responsible for gathering the information in the information submitted in, to the steer of ray knowledge and belief, true, accurate, and compiler I am aware that there are all against persents for submitting false information, including the possibility of fine and impresoment for algorithms for all the present of the present o	ons
PERMIT REQUIREMENT		Loerbfy under p supervision in a evaluate the ini	system, or those to the to the to the best of m	Knowing violations
REQUI		<u>ا ټ</u>	P	1
50050 1 0 Effluent Gross		NAME/TITLE PRINCIPAL EXECUTIVE OFFICER Steve Parke, Director		TYPED OR PRINTED

-23-20

DATE

M/DD/YYYY

Comp2

1 mo.

×

0.45

0.45

COMPOS

Monthly

mg/L

Req. Mon. 7 DA AVG

Req. Mon. MO AVG

p/q

Req. Mon. MO AVG

PERMIT REQUIREMENT SAMPLE MEASUREMENT

Flow, in conduit or thru treatment plant

Effluent Gross

00665 1 0

∞

MEASUREMENT

Phosphorus, total [as P]

00630 1 0 Effluent Gross

Vitrogen, ammonia total [as N]

Effluent Gross

0053010

Solids, total suspended

00400 1 0 Effluent Gross

Effluent Gross Nitrite + Nitrate total [as N]

0061010

22.9

9.6

Recor

Cont.

TOTALZ

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

REPORT FLOW AS MONTHLY AVERAGE & DAILY MAXIMUM IN MILLION GALLONS PER DAY, SAMPLE AT THE END OF POST-AERATION BASIN. SEE PART II, #'s 6, (TRC), 8, (WET) & 9, DMR MUST BE SUBMITTED EVEN WHEN NO DISCHARGE OCCURS. SUBMIT A TABULAR OVERFLOW REPORT WITH THIS DMR EACH MONTH, SEE PART II, #5 (SSO), 66-01653

Page

DISCHARGE MONITORING REPORT (DMR)

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different) FORT SMITH, CITY OF -"P" STREET WWTP 3900 KELLEY HWY ADDRESS: NAME:

FORT SMITH, AR 72904

FORT SMITH, CITY OF - "P" STREET WMTP FACILITY:

FORT SMITH, AR 72901 13 NORTH "P" STREET

LOCATION:

ATTN: STEVE PARKE, DIRECTOR

		C COLLEGE CHARLES
AR0033278	001-A	
PERMIT NUMBER	DISCHARGE NUMBER	
MONITC	MONITORING PERIOD	001-MONIHLY-
MM/DD/YYYY	MM/DD/YYYY	External Outfall
05/01/2014	05/31/2014	

DMR Mailing ZIP CODE:

72904

OMB No. 2040-0004 Form Approved

-TRTD MUNICIPAL WASTEWATER

No Discharge

		QUANTI	NTITY OR LOADING			QUALITY OR CONCENTRATION	SENTRATION		ŏ.	FREQUENCY	SAMPLE
PARAMETER		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS	EX	OF ANALYSIS	TYPE
Chlorine, total residual	SAMPLE	专业专业	· · · · · · · · · · · · · · · · · · ·	\$1 \$4 \$4 \$4 \$4 \$4 \$4 \$4 \$4 \$4 \$4 \$4 \$4 \$4	*******	在在在在我的人	0.07		0	1/7	Grab
50060 A 0 Disinfection, Process Complete	PERMIT REQUIREMENT	*****	电电化电力	· · · · · · · · · · · · · · · · · · ·	****	****	.1 INST MAX	mg/L		Daily	GRAB
Coliform, fecal general	SAMPLE					10	13		0	7/7	Grab
74055 1 0 Effuent Gross	PERMIT REQUIREMENT	******	***	****	*****	200 MOAV GEO	400 7DAV GEO	#/100mL		Daily	GRAB
BOD, carbonaceous, 05 day, 20 C	SAMPLE	276				4	4		0	7/7	Comp24
80082 1 0 Effluent Gross	PERMIT REQUIREMENT	2502 MO AVG	*****	p/ql	****	25 MO AVG	37.5 7 DA AVG	mg/L		Three Per Week	COMPOS

system, or those persons directly re to the best of my knowledge and be	Steve Parke, Director
evaluate the information submitted	
supervision in accordance with a sy	
cerbfy under panelty of law that the	NAME/TITLE DRINGIPAL EXECUTIVE OFFICER

TYPED OR PRINTED

system designed to season that qualified gestroomel property gather and and Based on my regular (the persons or preactors who manage the responsible for gathering the information, the information admitted is, benefit to us, examine that there are the there are benefit to us, examine the president of the president of the gistee information, including the possibility of the and impresoment for

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

06-23-2014 MM/DD/YYYY 799-784-2231 NUMBER AREA Code

TELEPHONE

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

REPORT FLOW AS MONTHLY AVERAGE & DAILY MAXIMUM IN MILLION GALLONS PER DAY, SAMPLE AT THE END OF POST-AERATION BASIN. SEE PART II, #'s 6. (TRC), 8. (WET) & 9. DMR MUST BE SUBMITTED EVEN WHEN NO DISCHARGE OCCURS, SUBMIT A TABULAR OVERFLOW REPORT WITH THIS DMR EACH MONTH, SEE PART II, #5 (SSO). 66-01653

12/10/2013

"P" Street Plant Data May 2014

DAY		FLOW			BOI)		- 0	CBOD		AMN	ION	A NITRO	GEN	D.O.	pH	TURB			SUSPE	NDED S				CHLC		FECAL		
	INF.		EFF.	IN	IFLUI	NT		EF	FLUENT			EF	FLUENT		EFF,	EFF.	EFF.		INFL	JENT		EF	FLUENT		EFFL	UENT	-	FLUE	
	MGD		MGD	ma/L		ppd	mg/L		7D Avg.	ppd	ma/L		7D Ava	ppd	mg/L	S.U.	NTU		mg/L	ppd	mg/L		7D Avg.	ppd	mg/L		#/100ml		7D Avg.
- 1	7.526		5,845	110,53		6937,6	3,31			161.4	2.15			104.8	7.84	7.04	1.30		210.00	13181.0	5,00	<		243,7	0.01		9	<	
2	7.167	A	5,511	115,66		6913,3	3.01			138.3	2.70			124.1	8.01	7.05	2,00		88,75	5304.8	5,00	<		229,8	0.00		9	<	1 /
3	6,541	A	5,035	127,58		6959,7	2,66		3.0	111,7	2.63		2.5	110,4	7.89	NDP	1,60		105.00	5728,0	5,00	<	5.0	210,0	0,00		9		11
4	6.332	Α.	4,760	146,00		7710,1	3,88			154.0	2.03			80_6	7_92	NDP	1,90		108.75	5743.0	5.00	<		198.5	0.01		9	<	1 1
5	6,858		4,813	120,00		6863,5	3.01			120.8	3.00			120_4	7.85	7.07	2.00		72.50	4146_7	5,00	<		200.7	0.01		9	<	
6	7,182		4,970	155,20	$\overline{}$	9296.2	4,96	b		205.6	3,42			141,8	7.73	7.14	2.20		90.00	5390_8	5.00	<		207.2	0.00	1	9	<	
7	5,546		4,633	292,96	a,b	13550.5	4,96	b		191.7	3.02			116.7	7,77	7,44	2,00		248_89	11512.1	8,00			309.1	0.07		9	<	
8	12.186		11.976	200.00		20326.2	15.60			1558.1	3.75		l.	374.5	7.76	7.01	4.00		180.00	18293.6	7.00			699 2	0.02		9	<	
9	11,517	*	11,212	94.56		9082,7	5,13	а		479.7	1,03			96.3	6,98	7.27	2,80		97.14	9330.5	5,00	<		467.5	0.02	1	18		
10	9,609	A	8,109	87.94		7047.4	5.10		6.1	344.9	2.18		2.6	147.4	7.13	NDP	2.00		106.25	8514.8	5.00	~	5.7	338.1	0.01		9	<	10
11	8,041	٨	6,466	117,20	IT	7859.7	2.04	\Box		110.0	1,67			90.1	7.04	NDP	1.50		83.75	5616.4	5.00	<		269.6	0.02		9	<	
12	12.546		11,506	156,00	l	16322.8	3.00			287.9	3.06	ı	l	293.6	7.47	6.98	2,80		116,00	12137.5	5.00			479_8	0.03	1	9	<	
13	22,036		22,870	47.14		8663.4	2,92	_		556,9	1,53	ı	ŀ	291.8	7.32	6.79	4.50		63,00	11578.2	5.00	l		953.7	0.02		18	ш	
14	21,685		22,181	49.94	b	9031.8	2.26	b		418.1	1.75	l	l.	323.7	6.67	6.91	2.90		42.00	7595.8	5.00			924.9	0,04		9	<	
15	17.869		17.631	68.62		10226.2	2.00	<,a		294_1	1.28			188.2	8.48	6.86	1:70		72,00	10729.9	5.00	<		735.2	0.02	_	9	<	
16	15.281	*	14.606	36,00	-	4588.0	2,00	<,8		243,6	1,38			168,1	8.34	6.81	1.20		44.00	5607.5	5.00	<		609.1	0.03		9	_	
17	19,509	· A	19,244	53,56	а	8714.5	2,52	8	2,4	404.4	1.71	l	1.8	274.4	6.28	NDP	2,30		60.00	9762.3	5.00	<	5.0	802.5	0.01	ı	9	<	10
18	13.446	10	13,980	46.80	b	5248 1	2,00	<		233.2	1.07	l		124.8	8.17	NDP	1.70		62,00	6952.7	5.00	<	l	583.0	0.04	1	9	<	
19	12,403		10,878	76.24		7886.3	2,29			207.8	1,38	ı		125.2	7.56	7.03	1,40		69,00	7137.4	5.00	<		453.6	0.01	1	9		
20	10.871		9.387	121,25		10993.0	2.09			163.6	1.66	_		130.0	7.29	6.46	1.70		116.25	10539.7	5.00	×		391.4	0.00	_	9	<	
21	9.026	A	7.568	121.00	Ď	9108.5	2.52			159.5	1.82	I		115.2	7.30	7.05	1.80		105.71	7957.5	5,00			316.4	0,06		9		
22	8,955		7,066	119,08		8893.5	2,00	<	1	117,9	1.48	ı		87.2	7.41	6.82	3.90		128.00	9559,6	5,00	<		294.7	0.03		9	<	
23	8.417	A	7.066	119,50	1	8388,6	2.00	<		117.9	1.43	ı		84.3	7.57	6.87	2,30		122.86	8624.5	5,00	<		294.7	0.01		8	*	529
24	7.355		6.548	73.14	ı	4486.5	2.00	<	2.1	109.2	1.34	ı	1.5	73.2	7.59	NDP	1.20		61.11	3748,5	5.00	<	5.0	273.1	0.02	1	9	<	9
25	4.253		5.961	91.34		3239.5	2.50			124.3	1.17			58.2	7.37	NDP	1.70		65.00	2305.3	5.00	<		248.6	0.00		- 9		
26	10.934		9.238	105.54	П	9624.1	2.00	<		154.1	0.88	П		67.8	7.53	NDP	1.60		66.00	6018,5	5.00	<		385,2	0.02		27		1
27	9,497	Α.	7,966	122,34		9689.9	4.22			280_4	2,25	ı		149.5	7,27	6.86	2.70		88.33	6996.2	5.00	<		332.2	0,01	ı	45		1
28	9.031		7 164	114 40	1	8616.4	4.96			296.3	3,02	I	l	180.4	7.33	6.91	3.20		82,00	6176,1	5,00	<		298,7	0.01	1	9	<	
29	10.934		9 238	121.66		11094_1	3.46	а		266.6	1.60	l	1	123,3	7.46	6.96	1,80		125.00	11398,7	5.00	<		385.2	0.02	I	9	*	
30	9.449		7.546	135.42	a	10671.7	3.73	а		234.7	2,33	l	l	146.6	7,14	6.92	2,20		138.75	10934.1	5,00	<		314.7	0.00	1	9	4	
31	9.173	- 6	7.667	114.00		8721.3	4.85		3.7	310,1	1.77		1,9	113.2	7.29	NOP	2.00	_	114.44	8755.0	9,00		5.6	575,5	0,01		9		13
SUM	331.174		298,661	3460.6		276755.3	109.0		17.3	8556.8	61.5		10,2	4625.8	232.8	146.3	67,90		3132.5	257276.8	164.0		26.3	13025.6	0.56		351		53
AVG	10,683		9.634	111.6		8927.6	3,5		3.5	276.0	2.0		2.0	149.2	7.5	7.0	2.19		101.0	8299.3	5.3		5,3	420.2	0.02		10		11
MAX	22,036		22.870	293.0		20326.2	15.6		6.1	1558_1	3.8		2.6	374.5	8.5	7.4	4.50		248.9	18293.6	9.0		5.7	953.7	0.07		45		13
MIN	4.253		4.633	36.0		3239.5	2.0		2.1	109.2	0.9		1.5	58.2	6.3	6.5	1.20		42.0	2305.3	5.0		5.0	198.5	0.00		9		9

BOD % Removal: TSS % Removal:

97 95

Notes: a: b: ^:

Data questionable due to spike recovery failure
 Deta questionable due to excessive blank depletion
 Data not originally on the chain of custody, supplied later by Mike Keith.
 Ditain originally on the chain of custody, supplied later by Mike Keith.
 Ditain originally quantify, actual value less than value reported.

NDP: No Data Provided...

"P" Street WWTP Monthly Nitrogen Total Phosphorous Data

Sample	Inf. Flow,	Eff. Flow,	Nit	rate+Nitrite as EFFLUENT	N	Total	Phosphorous a EFFLUENT	as P	CBOD Removal
Date	MGD	MGD	mg/L	7D Avg.	ppd	mg/L	7D Avg.	ppd	%
1/1/2014	7.175	6.091	3.93	3.93	199.6	1.00	1.00	50.8	
2/11/2014	8.63	7.422	5.77	5.77	357.2	1.20	1.20	74.3	
3/11/2014	8.126	6.333	3.48	3.48	183.8	1.25	1.25	66.0	
4/21/2014	8.286	6.518	4.95	4.95	269.1	0.95	0.95	51.6	
5/5/2014	6.858	4.813	5.58	5.58	224.0	0.45	0.45	18.1	97.1%

DISCHARGE MONITORING REPORT (DMR)

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

FORT SMITH, CITY OF - "P" STREET WWTP **ADDRESS**: NAME:

FORT SMITH, AR 72904 3900 KELLEY HWY

FORT SMITH, CITY OF - "P" STREET WMTP 13 NORTH "P" STREET LOCATION: FACILITY:

FORT SMITH, AR 72901

ATTN: STEVE PARKE, DIRECTOR

DISCHARGE NUMBER MM/DD/YYYY 11/30/2014 001-A MONITORING PERIOD PERMIT NUMBER MM/DD/YYYY 11/01/2014 AR0033278

DMR Mailing ZIP CODE:

72904

OMB No. 2040-0004 Form Approved

MAJOR

001-MONTHLY-TRTD MUNICIPAL WASTEWATER External Outfall

No Discharge

Comp24 Record Comp24 Comp24 Comp24 SAMPLE COMPOS COMPOS COMPOS COMPOS TOTALZ GRAB GRAB TYPE Grab Grab FREQUENCY OF ANALYSIS Three Per Week Three Per Week 1 шо. 1 Mo. Cont. Monthly Monthly Daily Daily Daily 5/7 1/1 1/7 Š X 0 0 0 0 * ĸ * UNITS i : mg/L mg/L mg/L mg/L mg/L SC 45 7 DA AVG Req. Mon. 7 DA AVG Req. Mon. 7 DA AVG MAXIMUM 7 DA AVG VALUE ***** QUALITY OR CONCENTRATION **** : 45 თ 7.0 7.6 1.6 10 8 Req. Mon. MO AVG Req. Mon. MO AVG 30 MO AVG 30 MO AVG VALUE **** ***** ***** ***** ***** 1.6 9.7 _ 9 INST MIN MINIMUM VALUE ***** **** ***** ! ***** ! ***** 6.7 6.7 世世世世世世 i 9 UNITS : **** MGD ***** ***** p/q p/q p/qi P/q QUANTITY OR LOADING Req. Mon. 7 DA AVG VALUE ! ***** ***** : ***** ***** **** ***** *** ***** i Req. Mon. MO AVG Req. Mon. MO AVG Req. Mon. MO AVG MO AVG 3002 MO AVG VALUE : **** 3002 ***** 6.1 367 330 327 29 PERMIT REQUIREMENT PERMIT REQUIREMENT PERMIT REQUIREMENT PERMIT REQUIREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT SAMPLE MEASUREMENT REQUIREMENT REQUIREMENT SAMPLE MEASUREMENT MEASUREMENT MEASUREMENT MEASUREMENT MEASUREMENT SAMPLE PERMIT SAMPLE SAMPLE SAMPLE PERMIT low, in conduit or thru treatment plant PARAMETER Nitrite + Nitrate total [as N] Phosphorus, total [as P] Oxygen, dissolved [DO] 3OD, 5-day, 20 deg. C Solids, total suspended Effluent Gross 00300 1 0 0031010 00400 1 0 00530 1 0 00630 1 0 0066510 50050 1 0

TELEPHONE TELEPHONE	dls,	SIGNATURE OF	AUTHORIZED AGENT
Township under penalty of law that this document and all attachments were prepared under my direction or approvision in section with a system deligned be assure that quiting prepared properly gather and approvision in a	eystration and international productions of the production of the information and the second of the information and the second of the information and the second of the se	to the best of my knowledge and belief, true, accurate, and complete, am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for	-kirowing violations
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER Gently under penalty in accord approximation in accord and a second according to the information of the i		Steve Parke, Director	TYPED OR PRINTED

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

REPORT FLOW AS MONTHLY AVERAGE & DAILY MAXIMUM IN MILLION GALLONS PER DAY. SAMPLE AT THE END OF POST-AERATION BASIN. SEE PART II, #'S 6. (TRC), 8. (WET) & 9. DMR MUST BE SUBMITTED EVEN WHEN NO DISCHARGE OCCURS. SUBMIT A TABULAR OVERFLOW REPORT WITH THIS DMR EACH MONTH, SEE PART II, #5 (SSO). 66-01653

Page 1

2-16-20

DATE

MM/DD/YYYY

DISCHARGE MONITORING REPORT (DMR)

OMB No. 2040-0004 Form Approved

> PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different) FORT SMITH, CITY OF

3900 KELLEY HWY FORT SMITH, AR 729 ADDRESS:

FORT SMITH, CITY OI LOCATION: FACILITY:

13 NORTH "P" STREE FORT SMITH, AR 729

ATTN: STEVE PARKE, DIRECTOR

DMR Mailing ZIP CODE:

72904

IL WASTEWATER

OF - "P" STREET WWTP	AR0033278	001-A	MAJOR
	PERMIT NUMBER	DISCHARGE NUMBER	
2904	MONITO	MONITORING PERIOD	001-MONTHLY-TRTD MUNICIPAL WASTEWATI
OF - "P" STREET WWTP	MM/DD/YYYY	MM/DD/YYYY	External Outfall
EET	11/01/2014	11/30/2014	No Discharge
2901			

		QUANTI	NTITY OR LOADING	(3)		QUALITY OR CONCENTRATION	ENTRATION		ō.	FREQUENCY	SAMPLE
PARAMETER		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS		OF ANALYSIS	TYPE
Chlorine, total residual	SAMPLE	:	****	1	***	***	80.0		0	7/7	Grab
50060 A 0 Disinfection, Process Complete	PERMIT	***	***	*****	教会会会会会会会会会会会会会会会会会会会会会会会会会会会会会会会会会会会会会会	1	INST MAX	mg/L		Daily	GRAB
Coliform, fecal general	SAMPLE	******	•	*		10	12		0	7/7	Grab
74055 1 1 Effluent Gross	PERMIT REQUIREMENT	* * * * *	*****	***	食物食者食食	1000 MOAV GEO	2000 7DAV GEO	#/100mL		Daily	GRAB

		100		
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	l carity under panelly 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 premanent properly gather and supervision in accordance with a system designed to assure that qualified premanent properly gather and		TELEPHONE	DATE
Steve Parke, Director	equilibries the information securities contributed to the present present of the securities of the securities are sequenced that the present of the present	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	479-784-2231 12-16-2014	-16-2014

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

REPORT FLOW AS MONTHLY AVERAGE & DAILY MAXIMUM IN MILLION GALLONS PER DAY: SAMPLE AT THE END OF POST-AERATION BASIN, SEE PART II, #'s 6. (TRC), 8. (WET) & 9. DMR MUST BE SUBMITTED EVEN WHEN NO DISCHARGE OCCURS. SUBMIT A TABULAR OVERFLOW REPORT WITH THIS DMR EACH MONTH, SEE PART II, #5 (SSO). 66-01653

12/10/2013

OMB No. 2040-0004 Form Approved

72904

DISCHARGE MONITORING REPORT (DMR)

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different) CITY OF FORT SMITH NAME:

FORT SMITH, AR 72904 3900 KELLEY HWY. ADDRESS:

FORT SMITH, CITY OF-MASSARD FACILITY:

1609 9TH STREET LOCATION:

BARLING, AR 72923

ATTN: STEVE PARKE, DIRECTOR

AR0021750	001-A	W
PERMIT NUMBER	DISCHARGE NUMBER	
MONITC	MONITORING PERIOD	TR.
MM/DD/YYYY	MM/DD/YYYY	Ë
11/01/2014	11/30/2014	

REATED MUNICIPAL WASTEWATER MR Mailing ZIP CODE: xternal Outfall AJOR

No Discharge

SAMPLE TYPE Comp24 Comp24 Record Comp24 COMP24 COMP24 COMP24 TOTALZ GRAB GRAB GRAB Grab Grab Grab FREQUENCY OF ANALYSIS Once Every Weekday Once Every Weekday Once Every Weekday Once Every Weekday Once Every Once Every Cont. Weekday Weekday Daily 1/7 1/7 5/7 1/7 1/7 2/1 NO. 0 0 0 0 0 * 0 #/100mL UNITS ***** : mg/L mg/L mg/L S % 45 7 DA AVG 7DAV GEO MAXIMUM 7 DA AVG VALUE **** **** 2000 QUALITY OR CONCENTRATION **** ***** ***** 45 7.4 13 9 MOAV GEO 30 MO AVG MO AVG VALUE **** ***** ***** 教育教育教育 **** 30 10 6 2 2 INST MIN MO AV MN MINIMUM VALUE ***** **** ***** ***** **** : 82 4,4 6.7 96 UNITS MGD **** **** ***** **** * ***** **** **** p/q p/q QUANTITY OR LOADING Req. Mon. DAILY MX VALUE ***** ***** ***** **** **** ***** 有食食食食食 :::: ***** 8.6 Req. Mon. MO AVG 2502 MO AVG 2502 MO AVG VALUE ***** ***** **** ****** ***** **** 0.9 278 453 PERMIT
REQUIREMENT
SAMPLE
MEASUREMENT PERMIT REQUIREMENT PERMIT REQUIREMENT PERMIT REQUIREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT SAMPLE MEASUREMENT SAMPLE MEASUREMENT SAMPLE MEASUREMENT low, in conduit or thru treatment plant **PARAMETER** BOD, percent removal [total] Oxygen, dissolved [DO] BOD, 5-day, 20 deg. C Solids, total suspended Effluent Gross Coliform, fecal general 00310 1 0 Effluent Gross Effluent Gross Effluent Gross Effluent Gross Effluent Gross Effluent Gross 00400 1 0 00530 1 0 50050 1 0 50076 1 0 74055 1 1 00300 1 0

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR 479		>		
totan or her and ne itted is,	AREA Code	AOI HORIZED AGEN	moore	S. Since
fiction of the and the and the	-101-61	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR	of my knowledge and belief, true, accurate, and complete, I am aware that there are transities for submitting false information, including the possibility of fine and imprisonment for consistence.	lathe best o
Lity of law this this document and all attractions when the profession broad many and a support the profession broad many and a support the profession of the profession of the profession of the profession and the professio	70%	/////	those persons directly responsible for gathering the Information, the information submitted is,	system, or th
	TELEPHONE		der penalty of Law that this document and all attachments were prepared under my direction or a secondamous with a system designed to assuure that qualified personnel property galber and a stellarmatics activated.	aupervision in ac

-16-2014

DATE

MM/DD/YYYY

JMBER

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

ONCE/WEEKDAY: MONDAY - FRIDAY, 66-01652

DISCHARGE MONITORING REPORT (DMR)

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

3900 KELLEY HWY. FORT SMITH, AR 72904 CITY OF FORT SMITH ADDRESS: NAME:

FORT SMITH, CITY OF-MASSARD FACILITY:

BARLING, AR 72923 1609 9TH STREET LOCATION:

ATTN: STEVE PARKE, DIRECTOR

001-A	DISCHARGE NUMBER	FRIOD	MM/DD/YYYY	11/30/2014
AR0021750	PERMIT NUMBER	MONITORING PERIOD	MM/DD/YYYY	11/01/2014

DMR Mailing ZIP CODE:

72904

OMB No. 2040-0004

Form Approved

MAJOR

TREATED MUNICIPAL WASTEWATER External Outfall

No Discharge

		QUANTI	NTITY OR LOADING			QUALITY OR CONCENTRATION	ENTRATION		Š.	NO. FREQUENCY	SAMPLE
PARAMETER		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS	X	OF ANALYSIS	TYPE
Solids, suspended percent removal	SAMPLE MEASUREMENT	*	e e		86				0	1/7	Comp24
81011 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	***	85 MO AV MN	在在市本本本	相似在我们在	%		Once Every Weekday	COMP24

		-			
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I certify under penalty of law that this document and all altachmants were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel property gather and	1 000/	TELEPHONE	NE.	DATE
	skaluate the information submitted Based on my inquiry of the person or persons who manage the				
Stoye Darks Director	System, or those persons directly responsible for gathering the information, the information submitted is, in the heat of my knowledge and helief this account and complete, for a some that there are	/ ///	100		
	significant penalties for submitting false information, Including the possibility of fine and imprisonment for	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR 4779-784-2231 12-16-2014	77-18/-64	31 12	16-2014
	- knowing violations	THE PROPERTY OF THE PROPERTY O			
TYPED OR PRINTED		AUTHORIZED AGEN	AREA Code	NUMBER	MM/DD/YYYY
COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)	(Reference all attachments here)	>			

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

ONCE/WEEKDAY: MONDAY - FRIDAY. 66-01652

Page 2

_	_	_	_			_	_	_	_		_	_		_	_	_	_	_				_					_	_		_	_	_	_	_		_
JRM		7D Avg.	10							10							9							10							13		23	,	5	9
FECAL COLIFORM	EFFLUENT			v	sp'ep	ds,>			v	v	v		٧		v		٧	v		v	v	٧	٧	٧			v		v	٧						
FECAL	H	#/100ml	6	တ	თ	თ	6	92	6	6	ത	18	ത	თ	o,	თ	6	თ	2	o	တ	6	ത	თ	54	92	6	တ	ග	o	თ	6	351	10	54	o
		pdd	236.6	215.0	216.1	411.7	327.0	264.8	241,7	241,4	233.7	230.5	227.3	227.9	212,3	216,4	209.3	211,5	207.2	256.2	213,8	213.1	250,1	377,6	1058.2	316,4	331.3	254,2	236.0	228,3	235.3	227.9	8328.8	277.6	1058.2	207.2
	EFFLUENT	7D Avg.	5,0							5,1							2.0							5.3							6.1		56.6	5.3	6.1	5.0
SOLIDS	۳		>	٧	٧	_		٧	٧	٧	٧	+	v	٧	٧		1	v	٧		٧			٧		٧	1	٧	٧	٧	٧	٧				
SUSPENDED SOLIDS		mg/L	2,00	2.00	2.00	00.9	5.00	2.00	5.00	5.00	2.00	5.00	2.00	2.00	2.00	2.00	5.00	2 00	2,00	00'9	2,00	5.00	00.9	2.00	13.00	2.00	5.00	5.00	2,00	5.00	5,00	5.00	161.0	5.4	13.0	5.0
SPEN		pdd	32.7	20210.5	8385.9	6.1	5.3	8.3	2175,6	6838.7	6.4	12215,2	14.7	7673.6	8272,3	4435.8	5703.2	6133,6	21964.0	5621,3	5771.4	9802,0	1046.1	15752.7	4809.8	39.1	9937.9	7627.3	6215.4	4436,4	37800.1	24.7	1.96	11663.2	37800.1	2175.6
ls.	FN.	ď	10692	202	838	8006.1	5485.3	4148.3	217	683	6476.4	122	37344.7	192	827	443	570	613	2196	562	577	980	110	157	480	36489.1	993	762	621	443	378	18424.7	349896.	116	378	217
L	INFLUENT		_					_					=		_		-	_			_	-		_			4		_	-		-				
	=	mg/L	226.00	470.00	194,00	116.67	83.87	78.33	45,00	141.67	138,57	265,00	821.31	168,33	194.87	102,50	136.25	145.00	530.00	131,67	135.00	230.00	265,00	208,57	59,09	576.67	150,00	150.00	131,67	97.14	803,33	404.17	7199.7	240.0	821.3	45.0
TEMP.	EFF.	ပ	AON	PD	20.0	21.0	20.0	20.0	19.6	NP	MDP	20.7	18.6	17.0	15.0	16.0	NDP	MDP	17.0	15.0	17.0	18.0	17.0	NDP	NDP	17.0	17.0	16.0	15,0	17.0	NDP	NDP	354	9	21	15
TURB.	EFF.		L		_			L	_	_	_			_	_												_	_				_				
1	١	NTO	2.60	3,10	3.70	5.00	3.60	2,40	2,30	1.90	3,10	4.10	2,40	2,60	2,30	3,30	3,10	2,80	2.50	2.90	2,60	2.80	3.10	3,40	8.20	3.10	3,10	3.20	2,90	3.00	3.60	2.80	95.50	3.18	8.20	1,90
H a	EFF.	S.U.	MDP	NDP	6.78	6.77	6.68	6.77	6,88	NDP	NDP	7.01	7.42	7,09	7.07	7.09	NDP	NDP	6.91	7.20	7,18	7.02	7.14	NDP	NDP	7,13	7.19	7.15	7.07	7,17	NDP	NDP	140,7	7.0	7,4	6,7
°	R	S.U.	MDP	NDP	7.05	6.97	6.98	96'9	6.92	NDP	NDP	7.04	7.10	7.21	7.24	7.37	NDP	NDP	7.33	7,35	7,39	7.28	7.27	NDP	MDP	7.34	7,38	7.42	7.22	7,26	NDP	NDP	144.1	7.2	7.4	6'9
8	EFF.	mg/L	NDP	NDP	4.96	4.66	4.94	4.44	4.99	NDP	NDP	4.81	5.04	5.28	5.29	5.20	NDP	NDP	5.25	5,41	5.24	5.42	5,11	NDP	NDP	5.05	5,16	5.22	5.28	5.68	NDP	NDP	102.4	5.1	5.7	4.4
Ī		pdd	188.8	590,4	214.8	610.0	577.5	232.0	190.0	139.5	223,4	768.4	797.5	929.1	207.6	206.4	290.5	892.5	216,7	1213.3	401.9	574.1	314.3	249.2	1577.5	391.0	400,8	263.9	205.3	211.5	251.3	269.9	13599.2	453,3	1577.5	139.5
	JENT	7D Avg.	4.0							8.9							10,9							12.6							7,3	8	41.6	8,3	12.6	4.0
EMAN	EFFLUENT	,	d'q	d'q	۵	۵	۵	q	۵			d'>	d'q	d'q			a,b,p	a,b,p	۵	۵	d,q		a	۵		a,b						Ī				
BIOCHEMICAL OXYGEN DEMAND		mg/L	3,99	<u></u>		8.89	8.83	4.38	3.93	2.89	4.78	16.67				4.77			5.23	28.42	9.40	13,47	7.54	3.30	19.38	6.18	6.05	5.19	4.35	4.63	5,34	5.92	273.1	9.1	28,4	5.9
EMICAL	-	pdd	3980.9	187773	9016.6	9229.6	10211.9	5371.6	3706.8	9171,7	2,9666	17713.9	9668,2	8479.1	14937.5	75,6	6829.6	8663.1	26641.1	7775.6	10060,6	35.3	6856.9	28794.7	5881.0	17142.0	18550,8	11114.1	54.6	9156.8	21233.2	14804.2	357030.9	11901.0	28794.7	3706.8
BIOCH	JENT		_	,-	_	D	ì	53	37	91	66	ı				99	_	L	_	_			89	287	28			+	62	91	213	148	357	11	28	37
	INFLUENT		H	d'q 2	101		4 P		2 P	0	_ _	6		00 p.p	_	œ.	6 a,b,p	Н	_		13 p,b	Н		D .	2	a,b	Н	7	0	_	ý	5	0	3	ത	
		mg/L	<u> </u>	436.67	_	_		╀	_	_	_	_	212.63	186.00	_	_		L		_	_	_	┞	_		_	_	218.57	_	_	_	324,75	7270.0	242.3	642.9	72.3
FLOW	+	MGD	5.673	5,156	5,183	8.228	7.842	6.350	5.797	5.788	5.604	_	5.452	5.466	_	_	_	5.072	_	_	_	_	╁	_	_	_	7.944	6.097	_	_	_	-	180,4	0.9	_	_
DAY			-	2	ო	4	ß	ω	7	ω	6	10	=	12	13	4	15	19	17	18	19	20	21	22	23	24	25	26	27	28	29	30	SUM	AVG	MAX	MIN

BOD % Removal: TSS % Removal:

96

Data questionable due to spike recovery failure
Data questionable due to excessive blank depletion
Data questionable due to colony growth on start blank
Data questionable due to colony growth on end blank
Data questionable due to precision failure
Dilution did not quantify, actual value less than value reported.
P: No Data Provided. s sb: sb: sb: sc: NDP: Notes:

₹M		7D Avg.	6							7							0							6							12		50	10	12	6
FECAL COLIFORM	EFFLUENT	7	>	v	sp ep	qs'>		v	v		v			v	v		٧	v	v		v	v		v		v	_	v		v	v	v				
FCAL (EFF	#/100ml	6				45	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	18	6	.7	6	6	6	6	6	333	10	55	6
L	E	#/10	m'	_	_	_	4		_	_	_	_	_	_	_	_			_	_	_	_		_	_	_	7	_	_	_	_		3	_	_	-
CHLORINE	EFFLUENT	mg/L	0.01	0.02	0.03	0.01	0.03	90.0	0.02	0.03	0.02	0.00	0.00	0.00	0.01	0.00	0.01	0.01	90	0.00	0.00	0.07	90.0	0.08	0.00	0.07	0.00	0.03	0.01	0.01	0.01	0.01	29.0	0.02	0.08	0.00
	Ш	ppd m	_	_	_	_	_		_	_	_	_	_	_	_	_	_	208.7 0		_	-	272.7 0	_	1092.6 0		-	\dashv	_	_	-	_	220.8 0	_		_	205.3 0
	ENT		5.0 2(22	'n	5	4	5.	Š	6.0 2	2	3(2	ñ	5	5	5.6 20	2(5	5	2	.2	8	7.6 10	6	Ö	ň	2.	6	2	5.9 2.	2			7.6 10	
LIDS	EFFLUEN	7D Avg.	> 2		_			V		9	v			_	_	_	2							_						v	2	_	3(9	7	5
SUSPENDED SOLIDS		mg/L	5.00	00.9	8.00	7.00	00.9	5.00	2.00	5.00	5.00	7.00	5.00	00.9	00.9	2.00	2.00	5.00	00.9	7.00	7.00	7.00	10.00	11.00	10.00	2.00	00.9	5.00	2.00	2.00	2.00	5.00	185.0	6.2	11.0	5.0
USPEN		pdd	4066.4	5301.2	5239.6	9708.3	5203.9	4324.5	4753.9	6296.2	3999.1	6370.4	5213.2	4615.1	6399.3	5370.0	4574.4	4347.2	6174.9	4092.5	7040.6	5419.6	6.9795	26342.4	8928.9	3780.1	5043.4	4481.0	6263.7	5334.8	4195.1	4326.3	82882.8	6096.1	26342.4	3780.1
S	INFLUENT		— •	<u>ئ</u>	-2	6	2	4	4	-	~ —	9	25	4	<u>6</u>	<u>ئ</u> ا	4	4	9	<u>4</u>	<u>~</u>	Č.	2	7	— —	· ·	2(4		<u>ئ</u>	4	.4	18,	9	56	3.
	Z	mg/L	78.00	96.25	92.06	102.86	65.75	64.00	77.50	117.50	71.25	108.33	101.64	84.29	123.40	105.71	94.29	84.29	116.25	77.46	140.00	105.56	110.00	215.00	82.26	46.91	72.00	29.99	106.17	91.25	72.50	73.00	2845.2	94.8	215.0	46.9
₹B.																			_			Ì	È													
TURB	EFF.	NTO	3.60	4.00	4.70	4.90	4.60	3.30	3.90	4.40	4.30	4.00	4.20	4.50	3.90	4.40	4.10	3.10	3.70	3.40	3.10	3.60	2.90	3.40	4.90	3.30	3.10	3.50	3.10	3.00	2.20	2.70	Ц	3.73	4.90	2.20
됩		S.U.	_		_	6.99	_	⊢	_	_		6.87	-	6.98			NDP	AQN (6.99		6.95	6.84	_		_		6.81	_	6.72	6.88		NDP	137.9		7.0	
D:O:	EFF.	mg/L			_	-	_	9.23	_	9.18		_	9.27	10.10		11.90	11.70		11.60	_	_	11.70	-	11.30	11.40		_	-	_	11.00	10.90	10.60	3 311.2		-	\dashv
		pdd	266.1	249.4	258.9	496.0	405.5	294.8	166.3	522.9	228.3	223.5	195.5	377.7	279.1	278.1	459.8	361.5	262.1	268.2	530.1	460.9	386.1	1294.3	645.6	385,4	327.0	325.1	343.1	260.9	196.3	256.1	11004.6	366.8	1294.3	166.3
MAND	EFFLUENT	7D Avg.	6.5							6.3							8.9							10.0							5.9		35.5	7.1	10.0	5.9
SEN DE	造	,	d'q	d'q	a	۵	q	q	q			Q.	d'q	d'q			a,b,p	a,b,p	۵	۵	d,q		۵	۵		a,b										
AL OXYC		mg/L	6.48	5.81	6.48	6.09	5.76	5.40	3.29	11.54	5.07	5.08	4.61	8.69	6.50	6.68	11.06	99.8	6.18	6.61	13.49	11.83	9.98	13.03	92.9	5.70	5.75	00.9	7.21	5.58	4.34	5.80	215.5	7.2	13.5	3.3
BIOCHEMICAL OXYGEN DEMAND	L	pdd	8084.8	18313.2	8074.9	12741.8	6757.5	7838.2	9103.0	9195.1	6210.9	7879.9	9109.3	10775.2	7389.8	10566.2	6889.0	8045.6	11154.7	10804.5	20326.3	10382.2	15916.9	29895.6	9082.0	7548.0	9190.3	9597.9	9616.5	8564.9	6952.8	8356.2	314663.2	10488.8	29895.6	6510.9
BIOC	INFLUENT		d'q	d'q	۵	۵	q	Q	٩			Ω.	d'q	d'q			a,b,p	a,b,p	a	۵	_			0		a,b						_	(,)			
l	=	mg/L	155.08	332.50	146.50	135.00	85.38	116.00	148.40	171.60	116.00	134.00	177.60	196.80	142.50	208.00	142.00	156.00	210.00	204.50	404.18	202.22	308.42	244.00	83.67	93.67	131.20	142.80	163.00	146.50	120.16	141.00	5158.7	172.0	404.2	83.7
l	EFF.	MGD	4.923		4.791	9.765	8.442	6.546	6.059	5.433	5.400	5.276	5.084	5.212	5.149	4.991	4.985	5.005	5.085	4.866	4.712	4.671	4.639	11.910	11.452	8.108	6.818	6.496	5.706	5.606	5.422	5.295	82.994	6.100	11.910	4.639
FLOW		_	4	۷)	۷ ۷	۷	«	9 4	و د	۲) د	ر <u>ب</u>	()	ري د	(<u>ب</u>	4	4	4	ν 2	٧)	<	4	4	4	<	< -	۷	٧ و	۷	ر <u>ب</u> ا	4	4)	٧	18	9	-	4
E	NF.	MGD	6.251	6.604	609.9	11.317	9.490	8.102	7.355	6.425	6.730	7.051	6.150	6.565	6.218	6.091	5.817	6.184	698.9	6.335	6.030	6.156	6.188	14.691	13.015	9.662	8.399	8.059	7.074	7.010	6.938	7.106	225.991	7.533	14.691	5.817
DAY	<u> </u>	Σ	-	2 6.6	_		5 9.	H	7 7	-		10 7.0	11 6.	12 6.5	13 6.2	14 6.0	15 5.8	16 6.	-	_	_	20 6.	H	22 14.	23 13.	_	_	26 8.0	_	28 7.0		30 7.	SUM 225	AVG 7.9		MIN 5.8
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BOD % Removal: TSS % Removal:

98

a: b: eb: eb: Notes:

Data questionable due to spike recovery failure
Data questionable due to excessive blank depletion
Data questionable due to colony growth on start blank
Data questionable due to colony growth on end blank
Data questionable due to precision failure
Data not originally on the chain of custody, supplied later by Mike Keith.
Dilution did not quantify, actual value less than value reported.
No Data Provided.

"P" Street WWTP Monthly Nitrogen Total Phosphorous Data

Sample	Inf. Flow,	Eff. Flow,	Nit	rate+Nitrite as	N	Total	Phosphorous a	as P	CBOD Removal		
Date	MGD	MGD	mg/L	7D Avg.	ppd	mg/L	7D Avg.	ppd	%		
1/1/2014	7.175	6.091	3.93	3.93	199.6	1.00	1.00	50.8			
2/11/2014	8.63	7.422	5.77	5.77	357.2	1.20	1.20	74.3			
3/11/2014	8.126	6.333	3.48	3.48	183.8	1.25	1.25	66.0			
4/21/2014	8.286	6.518	4.95	4.95	269.1	0.95	0.95	51.6			
5/5/2014	6.858	4.813	5.58	5.58	224.0	0.45	0.45	18.1	97.1%		
6/16/2014	7.794	6.051	6.90	6.90	348.2	1.90	1.90	95.9	97.5%		
7/7/2014	6.831	4.528	8.26	8.26	311.9	2.40	2.40	90.6	98.2%		
8/6/2014	6.195	4.584	8.50	8.50	325.0	1.30	1.30	49.7	97.2%		
9/22/2014	8.162	6.414	6.81	6.81	364.3	0.55	0.55	29.4	97.4%		
10/13/2014	35.877	27.113	3.22	3.22	728.1	0.20	0.20	45.2	87.8%		
11/12/2014	6.565	5.212	7.58	7.58	329.5	1.55	1.55	67.4			



September 17, 2015

Water Division Inspection Branch Arkansas Department of Environmental Quality 5301 Northshore Drive North Little Rock, AR 72118-5317

Re: Fort Smith Massard WWTP Inspection, AFIN: 66-01652 NPDES Permit No. AR21750, ARR000449

Dear Ms. Gray:

The following deficiencies noted from your inspection of the Massard WWTP on August 18, 2015 have been corrected as follows.

- 1. The recirculation box in between the trickling filters that was seeping at a construction joint has been repaired. The old sealing material was removed at the area of the leak and Preco-Patch has been utilized to seal the joint. (See photos 1 and 2)
- 2. A section of the concrete pad in front of the trash bin (sanitary landfill dumpster) at the raw water pump station will be cut and removed creating a drainage channel. The cut section will be fitted with grating and a drain line from the new channel is to be installed directly into the RWPS wet well. Concrete curbing will be installed on the west side of the pad to insure that any drainage from the trash bin will travel into the new drain system and into the wet well. Construction will begin on September 21, 2015. I will advise when completed. (See photos 3 and 4).
- 3. Effluent meter calibration was measured by our technicians following the inspection. The percentage error at that time was +6.2 % which is within the required +/- 10%. However the meter was re-calibrated to a percentage error of -0.8151. (See the attached meter calibration report)

Should you require assistance or clarification, please contact me at sfloyd@fortsmithar.gov or (479) 784-2331.

Sincerely,

Steve Floyd

Superintendent – Water/Wastewater Operations

Pc: Steve Parke, Director of Utilities

David Shelly, Massard WWTP Supervisor









City of Fort Smith Utility Department Flow Meter Calibration

FL	OW	CAL	.CUL	ATI	ON

LOCATION: Massard POTW - Effluent Flow Meter Number 2

Manufacture:

Milltronics

Model:

OCM-III

Serial Number:

107PB

Flow Meter Type:

24 Inch Parshall Flume

Field Data:

Date:

9/15/2015

Time of Measurement:

10:00:00 AM

CST

Measured Head, Ft.

0.94

Displayed Flow, Mgd

4.66

FORMULA

Flow, Gpd = 8.00xH^1.55x86,400 sec/dayx7.481/ gal/cu-ft

Flow, Gpd =

4,697,984.26

Mgd =

4.698

ERROR

% Error = <u>Displayed Flow, Mgd - Calculated Flow, Mgd</u> x 100 Displayed Flow, Mgd

% Error = -0.8151

Person Making Measurement: Karl Lee

Date:

9/15/2015

ORIGIN ID:FSMA (4 STEVE FLOYD CITY OF FORT SMITH 3900 KELLEY HIGHWAY

FORT SMITH, AR 72904 UNITED STATES US

(501) 682-0638 INV: PO:

SHIP DATE: 18SEP15 ACTWGT: 0.50 LB CAD: 1731127/INET3670

BILL SENDER

WATER DIVISION INSPECTION BRANCH **ADEQ** 5301 NORTHSHORE DRIVE

REF:

DEPT:

(479) 784-2330

NORTH LITTLE ROCK AR 72118

Fedex.

539.12/CBB9/31D0

After printing this label:

AR-US

** 2DAY **

TUE - 22 SEP AA

72118 LIT

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.

Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned. Fold the printed page along the horizontal line.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number. Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, or found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss Maximum for items of extraordinary value is \$1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide. misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations

9/18/2015 11:55 AM



October 7, 2015

Steve Parke Fort Smith, City of – Massard WWTP 3900 Kelley Highway Fort Smith, AR 72901

RE: Response to Inspection (Sebastian Co)

AFIN: 66-01652 NPDES Permit No.: AR0021750

Dear Mr. Parke:

I have reviewed the response pertaining to my August 18, 2015 inspection of the City of Fort Smith's Massard wastewater treatment facility. The information provided sufficiently addresses the violations referenced in my inspection report. At this time, the Department has no further comment concerning this particular inspection. Acceptance of this response by the Department does not preclude any future enforcement action deemed necessary at this site or any other site.

If we need further information concerning this matter, we will contact you. Thank you for your attention to this matter. Should you have any questions, feel free to contact me at (479) 424-0333 or you may e-mail me at grayd@adeq.state.ar.us.

Sincerely,

Dannielle Gray

District 4 Field Inspector

Water Division

cc: Steve Floyd, City of Fort Smith, sfloyd@fsark.com