



December 18, 2013

U.S. Department of Justice  
Environmental Enforcement Section  
Environment and Natural Resources Division  
P.O. Box 7611  
Washington, D.C. 20044-7611

Via U.S. Certified Mail  
RRR# 7013 2630 0002 0130 2097

Re: DOJ Case No. [90-5-1-1-09215]

Consent Decree

Date of Lodging: July 23, 2013

Date of Entry: October 15, 2013

CA No. 5:13-cv-00666-DAE, United States of America and State of Texas v. San Antonio Water System, in the United States District Court for the Western District of Texas, San Antonio Division

Dear Sir/Madam:

Section 12 a. of the above-referenced Consent Decree requires that within 90 days after Lodging the San Antonio Water System shall provide a copy of the monthly compliance report required by its TPDES permits to the United States Environmental Protection Agency at the same time the report is submitted to the Texas Commission on Environmental Quality. A copy of the monthly compliance report for November 2013 is attached and is provided in compliance with Consent Decree requirements.

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

Sincerely,

A handwritten signature in blue ink that reads "Jeff Haby".

Jeff Haby, P.E.

Director – Sewer System Improvements

Enc. As stated



December 18, 2013

U.S. Environmental Protection Agency, Region VI  
Chief, Water Enforcement Branch (6EN-W)  
Compliance Assurance and Enforcement Division  
1445 Ross Avenue  
Dallas, TX 75202-2733

Via U.S. Certified Mail  
RRR# 7013 2630 0002 0130 2103

U.S. Environmental Protection Agency, Region VI  
Attn: Ms. Judy Edelbrock (6EN-W)  
Environmental Protection Specialist  
Enforcement Branch  
1445 Ross Avenue  
Dallas, TX 75202-2733

Via U.S. Certified Mail  
RRR# 7013 2630 0002 0130 2103

Re: DOJ Case No. [90-5-1-1-09215]

Consent Decree

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Sincerely,

A handwritten signature in blue ink, appearing to read "Jeff Haby", is written over the word "Sincerely,".

Jeff Haby, P.E.

Director – Sewer System Improvements

Enc. As stated

# OVERFLOW REPORT

PERIOD: November 2013

WATERSHED: DOS RIOS

TCEQ PERMIT # 10137-033

EPA PERMIT # 0077801

WO #	INSPT#	SR #	DATE	ADDRESS		GALLONS	CAUSE	ACTION	HRS	COMMENTS	
	244963	308801	11/30/2013	MCCULLOUGH AVE	5307	55	Grease	CLEANED MAIN	0.25	Area Cleaned and Disinfected, Flushed Area with H2O	
	245023	310151	11/28/2013	COMFORT	122	500	Debris	CLEANED MAIN	1.12	Area Cleaned and Disinfected,	
	244740	306336	11/27/2013	DONALDSON AVE	1603	40	Debris	CLEANED MAIN	1.07	Area Cleaned and Disinfected, Flushed Area with H2O	
	244672	306218	11/26/2013	MARIPOSA W	1718	100	Debris	CLEANED MAIN	0.50	Area Cleaned and Disinfected, Flushed Area with H2O	
	244162	305431	11/20/2013	FREDERICKSBURG RD	4741	100	Debris	CLEANED MAIN	1.15	Area Cleaned and Disinfected, Flushed Area with H2O	
916058	244014	305496	11/19/2013	HAMILTON AVE N	1400	20	Structural	REPAIRED MAIN	1.75	Area Cleaned and Disinfected, Repaired Main, Flushed Area with H2O	
	243874	305198	11/18/2013	LAUREL ST W	2033	2,000	Grease	CLEANED MAIN	1.02	Area Cleaned and Disinfected, Flushed Area with H2O	
913934	243807	305096	11/16/2013	OLIVE ST N	601	25	Structural	REPAIRED MAIN	0.75	Area Cleaned and Disinfected, Repaired Main, Flushed Area with H2O	
911208	243540	304479	11/12/2013	WARWICH DR	219	400	Structural	REPAIRED MAIN	0.17	Area Cleaned and Disinfected, Repaired Main, Flushed Area with H2O	
910252	243456	304224	11/10/2013	ESSEX ST	629	150	Structural	REPAIRED MAIN	1.82	Area Cleaned and Disinfected, Repaired Main, Flushed Area with H2O	
908754	243288	303830	11/7/2013	TEXAS AVE	1931	300	Structural	REPAIRED MAIN	1.37	Area Cleaned and Disinfected, Repaired Main, Flushed Area with H2O	
	243185	303820	11/6/2013	RIMROCK DR	4601	3,000	Grease	CLEANED MAIN	0.62	Area Cleaned and Disinfected, Flushed Area with H2O	
	243163	303658	11/6/2013	RUIZ ST	839	100	Grease	CLEANED MAIN	1.43	Area Cleaned and Disinfected,	
	242936	303316	11/3/2013	INDIANA ST	506	10	Grease	CLEANED MAIN	0.52	Area Cleaned and Disinfected, Flushed Area with H2O	
	242883	303218	11/1/2013	MILITARY DR SW	201	1,400	Grease	CLEANED MAIN	1.17	Area Cleaned and Disinfected, Flushed Area with H2O	
TOTAL EVENTS		15	TOTAL GALLONS:			8,200			TOTAL DURATION:	14.71	

Thursday, December 12, 2013

# OVERFLOW REPORT

PERIOD: November 2013

WATERSHED: SALADO CREEK

TCEQ PERMIT # 10137-008

EPA PERMIT # 0052647

WO #	INSPT#	SR #	DATE	ADDRESS	GALLONS	CAUSE	ACTION	HRS	COMMENTS
	244207	305574	11/20/2013	MIDCROWN DR 7210	9,000	Debris	CLEANED MAIN	1.18	Area Cleaned and Disinfected, Flushed Area with H2O
	243814	305154	11/17/2013	TROPHY RDG 5	40	Grease	CLEANED MAIN	2.57	Area Cleaned and Disinfected, Flushed Area with H2O
	243194	303703	11/6/2013	SALADO CREEK DR 3400	165,000	Debris	Cleaned Main	2.75	Area Cleaned and Disinfected, Flushed Area with H2O
TOTAL EVENTS	3	TOTAL GALLONS: 174,040				TOTAL DURATION:		6.50	

**Thursday, December 12, 2013**

**SAN ANTONIO WATER SYSTEM  
INTEROFFICE MEMORANDUM**

**TO:** Parviz Chavol, Senior Director, Production & Treatment

**FROM:** Veronica J. Godley, Director, Environmental Laboratory Services *V. Godley*

**COPY:** Anna Polanco-Ramos, Manager Laboratory Service; Monica Shafer, Quality Assurance Coordinator, Laboratory Services; SAWS Treatment Managers

**DATE:** December 17, 2013

**SUBJECT:** Laboratory Qualifier Notification for BOD Analyses

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This memorandum documents a number of qualifier incidents occurring in the month of November with the BOD and CBOD tests performed at the San Antonio Water System (SAWS) Laboratory. The BOD and CBOD data from the samples listed in the attached table were reported with "B" and/or "Q" qualifiers. Results that are flagged with a "B" were qualified in accordance with laboratory quality system requirements because the measured oxygen depletion for the blanks did not meet the method standard limit of  $\pm 0.20$  mg/L.

Results that are flagged with a "Q" were qualified in accordance with laboratory quality system requirements because the Glucose-Glutamic Acid Standard (GGA) controls did not meet the method specified limit of 167.5-228.5 mg/L. For the month of November, all qualifiers for each day are listed in the attached table.

As a result of the excessive issues all personnel who perform these tests were retrained in mandatory training sessions, were required to re-read the standard operating procedures for BOD and COD analysis and all activities were documented as such. In addition each analyst that is assigned to the station is supervised and observed by the acting team leader whose responsibility the test falls under.

The laboratory will continue to monitor these tests in accordance with the procedures set by our accreditation. Should you have any questions regarding the data, please contact Ms. Monica Shafer, SAWS Quality Assurance Coordinator at 210-233-3205 or at [Monica.Shafer@saws.org](mailto:Monica.Shafer@saws.org).

## Laboratory Qualifier Notification

December 17, 2013

Page 2

## Attachment

Sample Date	Avg. Blank (n=2)		Qualifier added				
	BOD (mg/L)	CBOD (mg/L)	Dos Rios Effluent BOD	Dos Rios Effluent CBOD	Leon Creek Effluent BOD	Leon Creek Effluent CBOD	Medio Creek Effluent CBOD
11/1/13	-0.39	-0.30	B	B	B	B	B
11/7/13	0.30	0.44	B	B and Q	B	B and Q	B and Q
11/8/13	-0.33	-0.28	B	B	B	B	B
11/9/13	-0.38	-0.39	B	B	B	B	B
11/10/13	-0.38	-0.39	B and Q	B	B and Q	B	B
11/11/13	-0.22	-0.29	B	None	B	None	None
11/12/13	-0.22	-0.20	B	None	B	None	None
11/14/13	-0.24	-0.15	B	None	B	None	None
11/15/13	-0.14	-0.16	None	Q	None	Q	Q
11/16/13	-0.43	-0.36	B	B	B	B	B
11/17/13	-0.43	-0.36	B	B	B	B	B
11/22/13	0.26	0.32	B	B	B	B	B
11/27/13	-0.21	-0.16	B	None	B	None	None
11/29/13	-0.01	0.02	Q	Q	Q	Q	Q
11/30/13	-0.03	0.10	Q	Q	Q	Q	Q

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

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

Form Approved  
OMB No. 2040-0004

**NAME:** DOS RIOS WATER RECYLING CENTER  
**ADDRESS:** 3495 VALLEY RD  
SAN ANTONIO, TX 78221

DISCHARGE MONITORING REPORT (DMR)

TX0077801	001-A
PERMIT NUMBER	DISCHARGE NUMBER

**DMR Mailing ZIP CODE:** 78221  
**MAJOR (SUBR 13)**  
DOMESTIC FACILITY - 001  
External Outfall

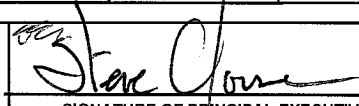
**FACILITY:** DOS RIOS WATER RECYCLING CTR.  
**LOCATION:** 3495 VALLEY RD.  
SAN ANTONIO, TX 78221

MONITORING PERIOD	
MM/DD/YYYY	MM/DD/YYYY
11/1/2013	11/30/2013

**ATTN:** STEVEN CLOUSE, SENIOR VP

No Discharge

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Oxygen, dissolved (DO)	SAMPLE MEASUREMENT	*****	*****	*****	6.6	*****	*****		0	12/Day	Grab
00300 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	6 MO MIN	*****	*****	mg/L		Daily	GRAB
pH	SAMPLE MEASUREMENT	*****	*****	*****	6.4	*****	7.4		0	12/Day	Grab
00400 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	6 MINIMUM	*****	9 MAXIMUM	SU		Daily	GRAB
Solids, total suspended	SAMPLE MEASUREMENT	845	*****		*****	1.27	2.90		0	Daily	Compos
00530 1 0 Effluent Gross	PERMIT REQUIREMENT	12510 DAILY AV	*****	lb/d	*****	12 DAILY AV	40 DAILY MX	mg/L		Daily	COMPOS
Nitrogen, ammonia total (as N)	SAMPLE MEASUREMENT	262	*****		*****	0.39	1.32		0	Daily	Compos
00610 1 0 Effluent Gross	PERMIT REQUIREMENT	2085 DAILY AV	*****	lb/d	*****	2 DAILY AV	7 DAILY MX	mg/L		Daily	COMPOS
Flow, in conduit or thru treatment plant	SAMPLE MEASUREMENT	79.98	99.40		*****	*****	*****	*****	0	Continuous	TotalZ
50050 1 0 Effluent Gross	PERMIT REQUIREMENT	Req. Mon. DAILY AV	Req. Mon. DAILY MX	MGD	*****	*****	*****	*****		Continuous	TOTALZ
Flow, in conduit or thru treatment plant	SAMPLE MEASUREMENT	*****	872.22		*****	*****	*****	*****	0	Continuous	TotalZ
50050 P 0 See Comments	PERMIT REQUIREMENT	*****	1736.11 2HR PEAK	gal/min	*****	*****	*****	*****		Continuous	TOTALZ
Flow, in conduit or thru treatment plant	SAMPLE MEASUREMENT	71.82	*****		*****	*****	*****	*****	0	Continuous	TotalZ
50050 Y 0 Effluent Gross (Supplementary)	PERMIT REQUIREMENT	125 ANNL AVG	*****	MGD	*****	*****	*****	*****		Continuous	TOTALZ

<b>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</b>  Steve Clouse Senior Vice President & COO  TYPED OR PRINTED	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	<b>TELEPHONE</b>		<b>DATE</b>
			AREA Code	NUMBER	MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)  
SEE OTHER REQUIREMENTS NO. 7 ON PAGE 26 OF THE PERMIT.

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NAME: DOS RIOS WATER RECYLING CENTER  
 ADDRESS: 3495 VALLEY RD  
 SAN ANTONIO, TX 78221

FACILITY: DOS RIOS WATER RECYCLING CTR.  
 LOCATION: 3495 VALLEY RD.  
 SAN ANTONIO, TX 78221

ATTN: STEVEN CLOUSE, SENIOR VP

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

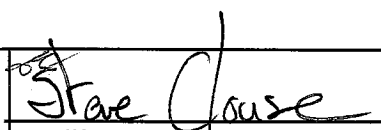
Form Approved  
 OMB No. 2040-0004

TX0077801	001-A
PERMIT NUMBER	DISCHARGE NUMBER
MONITORING PERIOD	
MM/DD/YYYY	MM/DD/YYYY
11/1/2013	11/30/2013

DMR Mailing ZIP CODE: 78221  
 MAJOR (SUBR 13)  
 DOMESTIC FACILITY - 001  
 External Outfall

No Discharge

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Chlorine, total residual 50060 A 0 Disinfection, Process Complete	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	0.090		0	12/Day	Grab
	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	.1 INST MAX	mg/L		Daily	GRAB
Chlorine, total residual 50060 B 0 Prior to Disinfection	SAMPLE MEASUREMENT	*****	*****	*****	1.0	*****	*****		0	12/Day	Grab
	PERMIT REQUIREMENT	*****	*****	*****	1 MO MIN	*****	*****	mg/L		Daily	GRAB
E. coli 51040 1 0 Effluent Gross	SAMPLE MEASUREMENT	*****	*****	*****	*****	1.87	320		0	Daily	Grab
	PERMIT REQUIREMENT	*****	*****	*****	*****	126 DAILY AV	394 DAILY MX	CFU/100m L		Five Per Week	GRAB
BOD, carbonaceous, 05 day, 20 C 80082 1 0 Effluent Gross	SAMPLE MEASUREMENT	1334	*****		*****	2.0	2.0		0	Daily	Compos
	PERMIT REQUIREMENT	5213 DAILY AV	*****	lb/d	*****	5 DAILY AV	20 DAILY MX	mg/L		Daily	COMPOS

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER  Steve Clouse Senior Vice President & COO  TYPED OR PRINTED	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.		TELEPHONE		DATE
			210-233-3774		12/13/2013
			AREA Code	NUMBER	MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)  
 SEE OTHER REQUIREMENTS NO. 7 ON PAGE 26 OF THE PERMIT.



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**ADDRESS:** 3495 VALLEY RD  
 SAN ANTONIO, TX 78221

**FACILITY:** DOS RIOS WATER RECYCLING CTR.  
**LOCATION:** 3495 VALLEY RD.  
 SAN ANTONIO, TX 78221

**ATTN:** STEVEN CLOUSE, SENIOR VP

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

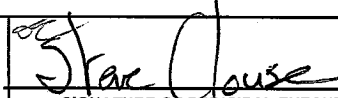
Form Approved  
 OMB No. 2040-0004

TX0077801	002-A
PERMIT NUMBER	DISCHARGE NUMBER
<b>MONITORING PERIOD</b>	
MM/DD/YYYY	MM/DD/YYYY
11/1/2013	11/30/2013

**DMR Mailing ZIP CODE:** 78221  
**MAJOR (SUBR 13)**  
 DOMESTIC FACILITY - 002  
 External Outfall

No Discharge

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Oxygen, dissolved (DO)	<b>SAMPLE MEASUREMENT</b>	*****	*****	*****	6.8	*****	*****		0	Daily	Grab
00300 1 0 Effluent Gross	<b>PERMIT REQUIREMENT</b>	*****	*****	*****	4 MO MIN	*****	*****	mg/L		Daily	GRAB
pH	<b>SAMPLE MEASUREMENT</b>	*****	*****	*****	6.8	*****	7.5		0	Daily	Grab
00400 1 0 Effluent Gross	<b>PERMIT REQUIREMENT</b>	*****	*****	*****	6 MINIMUM	*****	9 MAXIMUM	SU		Daily	GRAB
Solids, total suspended	<b>SAMPLE MEASUREMENT</b>	43.4	*****	*****	*****	1.27	2.90		0	Daily	Compos
00530 1 0 Effluent Gross	<b>PERMIT REQUIREMENT</b>	1251 DAILY AV	*****	lb/d	*****	15 DAILY AV	40 DAILY MX	mg/L		Daily	COMPOS
Nitrogen, ammonia total (as N)	<b>SAMPLE MEASUREMENT</b>	13.4	*****	*****	*****	0.39	1.32		0	Daily	Compos
00610 1 0 Effluent Gross	<b>PERMIT REQUIREMENT</b>	167 DAILY AV	*****	lb/d	*****	2 DAILY AV	7 DAILY MX	mg/L		Daily	COMPOS
Flow, in conduit or thru treatment plant	<b>SAMPLE MEASUREMENT</b>	4.09	4.35	*****	*****	*****	*****	*****	0	Continuous	TotalZ
50050 1 0 Effluent Gross	<b>PERMIT REQUIREMENT</b>	Req. Mon. DAILY AV	Req. Mon. DAILY MX	MGD	*****	*****	*****	*****		Continuous	TOTALZ
Flow, in conduit or thru treatment plant	<b>SAMPLE MEASUREMENT</b>	4.55	*****	*****	*****	*****	*****	*****	0	Continuous	TotalZ
50050 Y 0 Effluent Gross (Supplementary)	<b>PERMIT REQUIREMENT</b>	10 ANNL AVG	*****	MGD	*****	*****	*****	*****		Continuous	TOTALZ
Chlorine, total residual	<b>SAMPLE MEASUREMENT</b>	*****	*****	*****	*****	*****	0.080		0	Daily	Grab
50060 A 0 Disinfection, Process Complete	<b>PERMIT REQUIREMENT</b>	*****	*****	*****	*****	*****	.1 INST MAX	mg/L		Daily	GRAB

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			210-233-3774	12/13/2013	AREA Code

**COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)**  
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SAN ANTONIO, TX 78221

FACILITY: DOS RIOS WATER RECYCLING CTR.

LOCATION: 3495 VALLEY RD.  
SAN ANTONIO, TX 78221

ATTN: STEVEN CLOUSE, SENIOR VP

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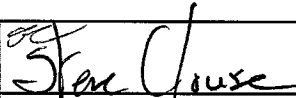
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MAJOR (SUBR 13)  
DOMESTIC FACILITY - 002  
External Outfall

No Discharge

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		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Chlorine, total residual 50060 B 0 Prior to Disinfection	SAMPLE MEASUREMENT	*****	*****	*****	1.0	*****	*****		0	Daily	Grab
	PERMIT REQUIREMENT	*****	*****	*****	1 MO MIN	*****	*****	mg/L		Daily	GRAB
E. coli 51040 1 0 Effluent Gross	SAMPLE MEASUREMENT	*****	*****	*****	*****	1.87	320		0	Daily	Grab
	PERMIT REQUIREMENT	*****	*****	*****	*****	126 DAILY AV	394 DAILY MX	CFU/100m L		Three Per Week	GRAB
BOD, carbonaceous, 05 day, 20 C 80082 1 0 Effluent Gross	SAMPLE MEASUREMENT	68.3	*****		*****	2.0	2.0		0	Daily	Compos
	PERMIT REQUIREMENT	834 DAILY AV	*****	lb/d	*****	10 DAILY AV	25 DAILY MX	mg/L		Daily	COMPOS

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER  Steve Clouse Senior Vice President & COO  TYPED OR PRINTED	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE	DATE	
			210-233-3774	12/13/2013	
			AREA Code	NUMBER	MM/DD/YYYY

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 SAN ANTONIO, TX 78221

**FACILITY:** DOS RIOS WATER RECYCLING CTR.  
**LOCATION:** 3495 VALLEY RD.  
 SAN ANTONIO, TX 78221

**ATTN:** STEVEN CLOUSE, SENIOR VP

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DISCHARGE MONITORING REPORT (DMR)

Form Approved  
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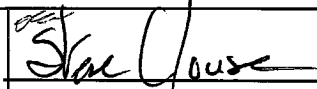
TX0077801	003-A
PERMIT NUMBER	DISCHARGE NUMBER

**DMR Mailing ZIP CODE:** 78221  
**MAJOR** (SUBR 13)  
 DOMESTIC FACILITY - 003  
 External Outfall

MONITORING PERIOD	
MM/DD/YYYY	MM/DD/YYYY
11/1/2013	11/30/2013

No Discharge

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Oxygen, dissolved (DO)	SAMPLE MEASUREMENT	*****	*****	*****		*****	*****				
00300 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	4 MO MIN	*****	*****	mg/L		Daily	GRAB
pH	SAMPLE MEASUREMENT	*****	*****	*****		*****					
00400 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	6 MINIMUM	*****	9 MAXIMUM	SU		Daily	GRAB
Solids, total suspended	SAMPLE MEASUREMENT										
00530 1 0 Effluent Gross	PERMIT REQUIREMENT	1251 DAILY AV	*****	lb/d	*****	15 DAILY AV	40 DAILY MX	mg/L		Daily	COMPOS
Nitrogen, ammonia total (as N)	SAMPLE MEASUREMENT										
00610 1 0 Effluent Gross	PERMIT REQUIREMENT	167 DAILY AV	*****	lb/d	*****	2 DAILY AV	7 DAILY MX	mg/L		Daily	COMPOS
Flow, in conduit or thru treatment plant	SAMPLE MEASUREMENT										
50050 1 0 Effluent Gross	PERMIT REQUIREMENT	Req. Mon. DAILY AV	Req. Mon. DAILY MX	MGD	*****	*****	*****	*****		Continuous	TOTALZ
Flow, in conduit or thru treatment plant	SAMPLE MEASUREMENT										
50050 Y 0 Effluent Gross (Supplementary)	PERMIT REQUIREMENT	10 ANNL AVG	*****	MGD	*****	*****	*****	*****		Continuous	TOTALZ
Chlorine, total residual	SAMPLE MEASUREMENT										
50080 A 0 Disinfection, Process Complete	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	.1 INST MAX	mg/L		Daily	GRAB

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER  Steve Clouse Senior Vice President & COO  TYPED OR PRINTED	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE	DATE
			210-233-3774 AREA Code NUMBER	12/13/2013 MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)  
 SEE OTHER REQUIREMENT NO. 7 ON PAGE 26 OF THE PERMIT.

No Discharge

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

NAME: DOS RIOS WATER RECYCLING CENTER  
 ADDRESS: 3495 VALLEY RD  
 SAN ANTONIO, TX 78221

FACILITY: DOS RIOS WATER RECYCLING CTR.  
 LOCATION: 3495 VALLEY RD.  
 SAN ANTONIO, TX 78221

ATTN: STEVEN CLOUSE, SENIOR VP

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

Form Approved  
 OMB No. 2040-0004

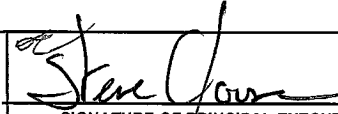
TX0077801	003-A
PERMIT NUMBER	DISCHARGE NUMBER

DMR Mailing ZIP CODE: 78221  
 MAJOR (SUBR 13)  
 DOMESTIC FACILITY - 003  
 External Outfall

MONITORING PERIOD	
MM/DD/YYYY	MM/DD/YYYY
11/1/2013	11/30/2013

No Discharge

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Chlorine, total residual	SAMPLE MEASUREMENT	*****	*****	*****		*****	*****				
50060 B 0 Prior to Disinfection	PERMIT REQUIREMENT	*****	*****	*****	1 MO MIN	*****	*****	mg/L		Daily	GRAB
E. coli	SAMPLE MEASUREMENT	*****	*****	*****	*****						
51040 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	*****	126 DAILY AV	394 DAILY MX	CFU/100m L		Three Per Week	GRAB
BOD, carbonaceous, 05 day, 20 C	SAMPLE MEASUREMENT		*****		*****						
80082 1 0 Effluent Gross	PERMIT REQUIREMENT	834 DAILY AV	*****	lb/d	*****	10 DAILY AV	25 DAILY MX	mg/L		Daily	COMPOS

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE	DATE
Steve Clouse Senior Vice President & COO			210-233-3774	12/13/2013
TYPED OR PRINTED			AREA Code	NUMBER

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

SEE OTHER REQUIREMENT NO. 7 ON PAGE 26 OF THE PERMIT.

No Discharge

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

NAME: DOS RIOS WATER RECYLING CENTER  
 ADDRESS: 3495 VALLEY RD  
 SAN ANTONIO, TX 78221

FACILITY: DOS RIOS WATER RECYCLING CTR.  
 LOCATION: 3495 VALLEY RD.  
 SAN ANTONIO, TX 78221

ATTN: STEVEN CLOUSE, SENIOR VP

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

Form Approved  
 OMB No. 2040-0004

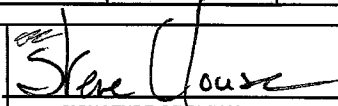
TX0077801	004-A
PERMIT NUMBER	DISCHARGE NUMBER

DMR Mailing ZIP CODE: 78221  
 MAJOR (SUBR 13)  
 DOMESTIC FACILITY - 004  
 External Outfall

MONITORING PERIOD	
MM/DD/YYYY	MM/DD/YYYY
11/1/2013	11/30/2013

No Discharge

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Oxygen, dissolved (DO)	SAMPLE MEASUREMENT	*****	*****	*****		*****	*****				
00300 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	5 MO MIN	*****	*****	mg/L		Daily	GRAB
pH	SAMPLE MEASUREMENT	*****	*****	*****		*****					
00400 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	6 MINIMUM	*****	9 MAXIMUM	SU		Daily	GRAB
Solids, total suspended	SAMPLE MEASUREMENT				*****						
00530 1 0 Effluent Gross	PERMIT REQUIREMENT	375 DAILY AV	*****	lb/d	*****	15 DAILY AV	40 DAILY MX	mg/L		Daily	COMPOS
Nitrogen, ammonia total (as N)	SAMPLE MEASUREMENT		*****		*****						
00610 1 0 Effluent Gross	PERMIT REQUIREMENT	50 DAILY AV	*****	lb/d	*****	2 DAILY AV	7 DAILY MX	mg/L		Daily	COMPOS
Flow, in conduit or thru treatment plant	SAMPLE MEASUREMENT				*****	*****	*****	*****			
50050 1 0 Effluent Gross	PERMIT REQUIREMENT	Req. Mon. DAILY AV	Req. Mon. DAILY MX	MGD	*****	*****	*****	*****		Continuous	TOTALZ
Flow, in conduit or thru treatment plant	SAMPLE MEASUREMENT		*****		*****	*****	*****	*****			
50050 Y 0 Effluent Gross (Supplementary)	PERMIT REQUIREMENT	3 ANNL AVG	*****	MGD	*****	*****	*****	*****		Continuous	TOTALZ
Chlorine, total residual	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****					
50060 A 0 Disinfection, Process Complete	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	.1 INST MAX	mg/L		Daily	GRAB

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE	DATE
Steve Clouse Senior Vice President & COO			210-233-3774	12/13/2013
TYPED OR PRINTED			AREA Code	NUMBER

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)  
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No Discharge

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

NAME: DOS RIOS WATER RECYLING CENTER

ADDRESS: 3495 VALLEY RD  
SAN ANTONIO, TX 78221

FACILITY: DOS RIOS WATER RECYCLING CTR.

LOCATION: 3495 VALLEY RD.  
SAN ANTONIO, TX 78221

ATTN: STEVEN CLOUSE, SENIOR VP

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

Form Approved  
OMB No. 2040-0004

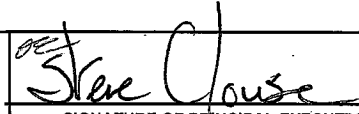
TX0077801	004-A
PERMIT NUMBER	DISCHARGE NUMBER

DMR Mailing ZIP CODE: 78221  
MAJOR (SUBR 13)  
DOMESTIC FACILITY - 004  
External Outfall

MONITORING PERIOD	
MM/DD/YYYY	MM/DD/YYYY
11/1/2013	11/30/2013

No Discharge

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Chlorine, total residual	SAMPLE MEASUREMENT	*****	*****	*****		*****	*****				
50060 B 0 Prior to Disinfection	PERMIT REQUIREMENT	*****	*****	*****	1 MO MIN	*****	*****	mg/L		Daily	GRAB
E. coli	SAMPLE MEASUREMENT	*****	*****	*****	*****						
51040 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	*****	126 DAILY AV	394 DAILY MX	CFU/100m L		Weekly	GRAB
BOD, carbonaceous, 05 day, 20 C	SAMPLE MEASUREMENT		*****		*****						
80082 1 0 Effluent Gross	PERMIT REQUIREMENT	250 DAILY AV	*****	lb/d	*****	10 DAILY AV	25 DAILY MX	mg/L		Daily	COMPOS

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.		TELEPHONE	DATE
Steve Clouse Senior Vice President & COO			210-233-3774	12/13/2013
TYPED OR PRINTED			AREA Code	NUMBER

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)  
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No Discharge

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

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

Form Approved  
OMB No. 2040-0004

**NAME:** DOS RIOS WATER RECYLING CENTER  
**ADDRESS:** 3495 VALLEY RD  
SAN ANTONIO, TX 78221

TX0077801	005-A
<b>PERMIT NUMBER</b>	<b>DISCHARGE NUMBER</b>

**DMR Mailing ZIP CODE:** 78221  
**MAJOR (SUBR 13)**  
**DOMESTIC FACILITY - 005**  
External Outfall

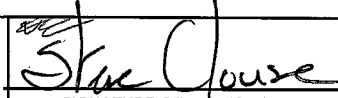
**FACILITY:** DOS RIOS WATER RECYCLING CTR.  
**LOCATION:** 3495 VALLEY RD.  
SAN ANTONIO, TX 78221

MONITORING PERIOD	
MM/DD/YYYY	MM/DD/YYYY
11/1/2013	11/30/2013

**ATTN:** STEVEN CLOUSE, SENIOR VP

No Discharge

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Oxygen, dissolved (DO)	<b>SAMPLE MEASUREMENT</b>	*****	*****	*****	5.6	*****	*****		0	Daily	Grab
00300 1 0 Effluent Gross	<b>PERMIT REQUIREMENT</b>	*****	*****	*****	4 MO MIN	*****	*****	mg/L		Daily	GRAB
pH	<b>SAMPLE MEASUREMENT</b>	*****	*****	*****	6.8	*****	7.8		0	Daily	Grab
00400 1 0 Effluent Gross	<b>PERMIT REQUIREMENT</b>	*****	*****	*****	6 MINIMUM	*****	9 MAXIMUM	SU		Daily	GRAB
Solids, total suspended	<b>SAMPLE MEASUREMENT</b>	5.0	*****	*****	*****	1.27	2.90		0	Daily	Compos
00530 1 0 Effluent Gross	<b>PERMIT REQUIREMENT</b>	325 DAILY AV	*****	lb/d	*****	15 DAILY AV	40 DAILY MX	mg/L		Daily	COMPOS
Nitrogen, ammonia total (as N)	<b>SAMPLE MEASUREMENT</b>	1.5	*****	*****	*****	0.39	1.32		0	Daily	Compos
00610 1 0 Effluent Gross	<b>PERMIT REQUIREMENT</b>	43 DAILY AV	*****	lb/d	*****	2 DAILY AV	7 DAILY MX	mg/L		Daily	COMPOS
Flow, in conduit or thru treatment plant	<b>SAMPLE MEASUREMENT</b>	0.46	0.76	*****	*****	*****	*****	*****	0	Continuous	TotalZ
50050 1 0 Effluent Gross	<b>PERMIT REQUIREMENT</b>	Req. Mon. DAILY AV	Req. Mon. DAILY MX	MGD	*****	*****	*****	*****		Continuous	TOTALZ
Flow, in conduit or thru treatment plant	<b>SAMPLE MEASUREMENT</b>	0.57	*****	*****	*****	*****	*****	*****	0	Continuous	TotalZ
50050 Y 0 Effluent Gross (Supplementary)	<b>PERMIT REQUIREMENT</b>	2.6 ANNL AVG	*****	MGD	*****	*****	*****	*****		Continuous	TOTALZ
Chlorine, total residual	<b>SAMPLE MEASUREMENT</b>	*****	*****	*****	*****	*****	0.070		0	Daily	Grab
50060 A 0 Disinfection, Process Complete	<b>PERMIT REQUIREMENT</b>	*****	*****	*****	*****	*****	.1 INST MAX	mg/L		Daily	GRAB

<b>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</b>  Steve Clouse Senior Vice President & COO  TYPED OR PRINTED	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	<b>TELEPHONE</b>		<b>DATE</b>
			210-233-3774	12/13/2013	
			AREA Code	NUMBER	MM/DD/YYYY

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

SEE OTHER REQUIREMENT NO. 7 ON PAGE 26 OF THE PERMIT.

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

NAME: DOS RIOS WATER RECYLING CENTER  
 ADDRESS: 3495 VALLEY RD  
 SAN ANTONIO, TX 78221

FACILITY: DOS RIOS WATER RECYCLING CTR.  
 LOCATION: 3495 VALLEY RD.  
 SAN ANTONIO, TX 78221

ATTN: STEVEN CLOUSE, SENIOR VP

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

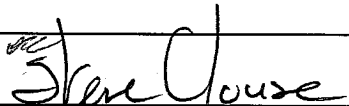
Form Approved  
 OMB No. 2040-0004

TX0077801	005-A
PERMIT NUMBER	DISCHARGE NUMBER
MONITORING PERIOD	
MM/DD/YYYY	MM/DD/YYYY
11/1/2013	11/30/2013

DMR Mailing ZIP CODE: 78221  
 MAJOR (SUBR 13)  
 DOMESTIC FACILITY - 005  
 External Outfall

No Discharge

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Chlorine, total residual 50060 B 0 Prior to Disinfection	SAMPLE MEASUREMENT	*****	*****	*****	1.0	*****	*****		0	Daily	Grab
	PERMIT REQUIREMENT	*****	*****	*****	1 MO MIN	*****	*****	mg/L		Daily	GRAB
E. coli 51040 1 0 Effluent Gross	SAMPLE MEASUREMENT	*****	*****	*****	*****	1.87	320		0	Daily	Grab
	PERMIT REQUIREMENT	*****	*****	*****	*****	126 DAILY AV	394 DAILY MX	CFU/100m L		Weekly	GRAB
BOD, carbonaceous, 05 day, 20 C 80082 1 0 Effluent Gross	SAMPLE MEASUREMENT	7.8	*****		*****	2.0	2.0		0	Daily	Compos
	PERMIT REQUIREMENT	217 DAILY AV	*****	lb/d	*****	10 DAILY AV	25 DAILY MX	mg/L		Daily	COMPOS

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER  Steve Clouse Senior Vice President & COO  TYPED OR PRINTED	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE	DATE	
			210-233-3774	12/13/2013	
			AREA Code	NUMBER	MM/DD/YYYY

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

SEE OTHER REQUIREMENT NO. 7 ON PAGE 26 OF THE PERMIT.



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

NAME: DOS RIOS WATER RECYCLING CENTER

ADDRESS: 3495 VALLEY RD  
SAN ANTONIO, TX 78221

FACILITY: DOS RIOS WATER RECYCLING CTR.

LOCATION: 3495 VALLEY RD.  
SAN ANTONIO, TX 78221

ATTN: STEVEN CLOUSE, SENIOR VP

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

Form Approved  
OMB No. 2040-0004

TX0077801	006-A
PERMIT NUMBER	DISCHARGE NUMBER

DMR Mailing ZIP CODE: 78221  
MAJOR (SUBR 13)  
DOMESTIC FACILITY - 006  
External Outfall

MONITORING PERIOD	
MM/DD/YYYY	MM/DD/YYYY
11/1/2013	11/30/2013

No Discharge

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Oxygen, dissolved (DO)	SAMPLE MEASUREMENT	*****	*****	*****		*****	*****				
00300 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	4 MO MIN	*****	*****	mg/L		Daily	GRAB
pH	SAMPLE MEASUREMENT	*****	*****	*****		*****					
00400 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	6 MINIMUM	*****	9 MAXIMUM	SU		Daily	GRAB
Solids, total suspended	SAMPLE MEASUREMENT	*****	*****	*****	*****						
00530 1 0 Effluent Gross	PERMIT REQUIREMENT	5755 DAILY AV	*****	lb/d	*****	15 DAILY AV	40 DAILY MX	mg/L		Daily	COMPOS
Nitrogen, ammonia total (as N)	SAMPLE MEASUREMENT	*****	*****	*****	*****						
00610 1 0 Effluent Gross	PERMIT REQUIREMENT	767 DAILY AV	*****	lb/d	*****	2 DAILY AV	7 DAILY MX	mg/L		Daily	COMPOS
Flow, in conduit or thru treatment plant	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	*****			
50050 1 0 Effluent Gross	PERMIT REQUIREMENT	Req. Mon. DAILY AV	Req. Mon. DAILY MX	MGD	*****	*****	*****	*****		Continuous	TOTALZ
Flow, in conduit or thru treatment plant	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	*****			
50050 Y 0 Effluent Gross (Supplementary)	PERMIT REQUIREMENT	46 ANNL AVG	*****	MGD	*****	*****	*****	*****		Continuous	TOTALZ
Chlorine, total residual	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****					
50060 A 0 Disinfection, Process Complete	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	.1 INST MAX	mg/L		Daily	GRAB

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	TELEPHONE	DATE
Steve Clouse Senior Vice President & COO		210-233-3774	12/13/2013
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA Code

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

SEE OTHER REQUIREMENT NO. 7 ON PAGE 26 OF THE PERMIT.

No Discharge

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

**NAME:** DOS RIOS WATER RECYCLING CENTER  
**ADDRESS:** 3495 VALLEY RD  
 SAN ANTONIO, TX 78221

**FACILITY:** DOS RIOS WATER RECYCLING CTR.  
**LOCATION:** 3495 VALLEY RD.  
 SAN ANTONIO, TX 78221

**ATTN:** STEVEN CLOUSE, SENIOR VP

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

Form Approved  
 OMB No. 2040-0004

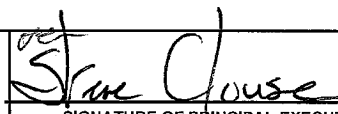
TX0077801	006-A
PERMIT NUMBER	DISCHARGE NUMBER

**DMR Mailing ZIP CODE:** 78221  
 MAJOR (SUBR 13)  
 DOMESTIC FACILITY - 006  
 External Outfall

MONITORING PERIOD	
MM/DD/YYYY	MM/DD/YYYY
11/1/2013	11/30/2013

No Discharge

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Chlorine, total residual 50060 B 0 Prior to Disinfection	SAMPLE MEASUREMENT	*****	*****	*****							
	PERMIT REQUIREMENT	*****	*****	*****	1 MO MIN	*****	*****	mg/L		Daily	GRAB
E. coli 51040 1 0 Effluent Gross	SAMPLE MEASUREMENT	*****	*****	*****	*****						
	PERMIT REQUIREMENT	*****	*****	*****	*****	126 DAILY AV	394 DAILY MX	CFU/100m L		Five Per Week	GRAB
BOD, carbonaceous, 05 day, 20 C 80082 1 0 Effluent Gross	SAMPLE MEASUREMENT		*****		*****						
	PERMIT REQUIREMENT	3836 DAILY AV	*****	lb/d	*****	10 DAILY AV	25 DAILY MX	mg/L		Daily	COMPOS

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE	DATE
Steve Clouse Senior Vice President & COO			210-233-3774	12/13/2013
TYPED OR PRINTED			AREA Code	NUMBER

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)  
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No Discharge

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

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**ADDRESS:** 3495 VALLEY RD  
 SAN ANTONIO, TX 78221

**FACILITY:** DOS RIOS WATER RECYCLING CTR.  
**LOCATION:** 3495 VALLEY RD.  
 SAN ANTONIO, TX 78221

**ATTN:** STEVEN CLOUSE, SENIOR VP

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

Form Approved  
 OMB No. 2040-0004

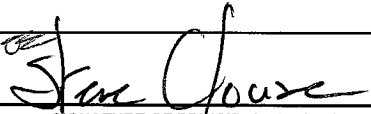
TX0077801	101-A
<b>PERMIT NUMBER</b>	<b>DISCHARGE NUMBER</b>

**DMR Mailing ZIP CODE:** 78221  
**MAJOR**  
 (SUBR 13)  
 DOMESTIC WASTEWATER - 101  
 Internal Outfall

MONITORING PERIOD	
MM/DD/YYYY	MM/DD/YYYY
11/1/2013	11/30/2013

No Discharge

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Flow, in conduit or thru treatment plant	<b>SAMPLE MEASUREMENT</b>	7.51	9.50		*****	*****	*****	*****	0	Continuous	TotalZ
50050 1 0 Effluent Gross	<b>PERMIT REQUIREMENT</b>	Req. Mon. DAILY AV	Req. Mon. DAILY MX	MGD	*****	*****	*****	*****		Continuous	TOTALZ
Flow, in conduit or thru treatment plant	<b>SAMPLE MEASUREMENT</b>	5.78	*****		*****	*****	*****	*****	0	Continuous	TotalZ
50050 Y 0 Effluent Gross (Supplementary)	<b>PERMIT REQUIREMENT</b>	Req. Mon. ANNL AVG	*****	MGD	*****	*****	*****	*****		Continuous	TOTALZ

<b>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</b>	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.		<b>TELEPHONE</b>	<b>DATE</b>
Steve Clouse Senior Vice President & COO				12/13/2013
TYPED OR PRINTED		<b>SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT</b>		<b>AREA Code</b>

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

WASTEWATER CONTRIBUTIONS FROM THE DOS RIOS WATER RECYCLING CENTER TO THE REUSE WATER SYSTEM SHALL BE MONITORED FOR FLOW AFTER CHLORINATION AT THE RECYCLED WATER PUMP AND REPORTED AS OUTFALL 101.

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

NAME: DOS RIOS WATER RECYCLING CENTER  
 ADDRESS: 3495 VALLEY RD  
 SAN ANTONIO, TX 78221

FACILITY: DOS RIOS WATER RECYCLING CTR.  
 LOCATION: 3495 VALLEY RD.  
 SAN ANTONIO, TX 78221

ATTN: STEVEN CLOUSE, SENIOR VP

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

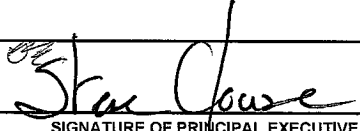
Form Approved  
 OMB No. 2040-0004

TX0077801	102-A
PERMIT NUMBER	DISCHARGE NUMBER
MONITORING PERIOD	
MM/DD/YYYY	MM/DD/YYYY
11/1/2013	11/30/2013

DMR Mailing ZIP CODE: 78221  
 MAJOR (SUBR 13)  
 TOTAL DISCHARGE - 001 & 101  
 Internal Outfall

No Discharge

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Flow, in conduit or thru treatment plant	SAMPLE MEASUREMENT	86.78	103.90		*****	*****	*****	*****	0	Continuous	TotalZ
50050 1 0 Effluent Gross	PERMIT REQUIREMENT	Req. Mon. DAILY AV	Req. Mon. DAILY MX	MGD	*****	*****	*****	*****		Continuous	TOTALZ
Flow, in conduit or thru treatment plant	SAMPLE MEASUREMENT	77.46	*****		*****	*****	*****	*****	0	Continuous	TotalZ
50050 Y 0 Effluent Gross (Supplementary)	PERMIT REQUIREMENT	125 ANNL AVG	*****	MGD	*****	*****	*****	*****		Continuous	TOTALZ

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE	DATE
Steve Clouse Senior Vice President & COO			210-233-3774	12/13/2013
TYPED OR PRINTED			AREA Code	NUMBER

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

THE TOTAL DISCHARGE FROM OUTFALL 001 & OUTFALL 101 SHALL NEVER EXCEED 125 MGD AND SHALL BE REPORTED AS OUTFALL 102.

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

**NAME:** DOS RIOS WATER RECYLING CENTER  
**ADDRESS:** 3495 VALLEY RD  
 SAN ANTONIO, TX 78221

**FACILITY:** DOS RIOS WATER RECYCLING CTR.  
**LOCATION:** 3495 VALLEY RD.  
 SAN ANTONIO, TX 78221

**ATTN:** STEVEN CLOUSE, SENIOR VP

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

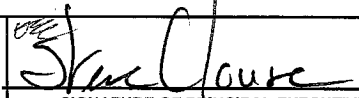
Form Approved  
 OMB No. 2040-0004

TX0077801	TX1-Q
PERMIT NUMBER	DISCHARGE NUMBER
MONITORING PERIOD	
MM/DD/YYYY	MM/DD/YYYY
10/1/2013	12/31/2013

**DMR Mailing ZIP CODE:** 78221  
 MAJOR (SUBR 13)  
 7-DAY CHRONIC FRESHWATER - 001  
 External Outfall

No Discharge

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Whole effluent toxicity - retest #1	SAMPLE MEASUREMENT	*****	*****	*****	N/A	N/A	*****				
22415 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Opt. Mon. 7 DA MIN	Opt. Mon. MO AV MN	*****	pass=0/fail=1		See Permit	COMP24
Whole effluent toxicity - retest #2	SAMPLE MEASUREMENT	*****	*****	*****	N/A	N/A	*****				
22416 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Opt. Mon. 7 DA MIN	Opt. Mon. MO AV MN	*****	pass=0/fail=1		See Permit	COMP24
Low Flow Pass/Fail Survival Test Static Renewal 7 Day Chronic Ceriodaphnia dubia TLP3B 1 0 Effluent Gross	SAMPLE MEASUREMENT	*****	*****	*****	0	0	*****		0	Quarterly	Comp24
	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	pass=0/fail=1		Quarterly	COMP24
Low Flow Pass/Fail Survival Test Static Renewal 7 Day Chronic Pimephales promelas TLP6C 1 0 Effluent Gross	SAMPLE MEASUREMENT	*****	*****	*****	0	0	*****		0	Quarterly	Comp24
	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	pass=0/fail=1		Quarterly	COMP24
NOEC Lethal Static Renewal 7 Day Chronic Ceriodaphnia dubia TOP3B 1 0 Effluent Gross	SAMPLE MEASUREMENT	*****	*****	*****	99	99	*****		0	Quarterly	Comp24
	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24
NOEC Lethal Static Renewal 7 Day Chronic Pimephales promelas TOP6C 1 0 Effluent Gross	SAMPLE MEASUREMENT	*****	*****	*****	99	99	*****		0	Quarterly	Comp24
	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24
NOEC Sub-Lethal Static Renewal 7 Day Chronic Ceriodaphnia dubia TPP3B 1 0 Effluent Gross	SAMPLE MEASUREMENT	*****	*****	*****	99	99	*****		0	Quarterly	Comp24
	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER  Steve Clouse Senior Vice President & COO  TYPED OR PRINTED	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE	DATE	
			210-233-3774	12/13/2013	
			AREA Code	NUMBER	MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)  
 (PASS = 0 FAIL = 1) REPORT PASS AS '0' OR REPORT FAIL AS '1' IN CONCENTRATION ABOVE.

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

**NAME:** DOS RIOS WATER RECYLING CENTER  
**ADDRESS:** 3495 VALLEY RD  
 SAN ANTONIO, TX 78221

**FACILITY:** DOS RIOS WATER RECYCLING CTR.  
**LOCATION:** 3495 VALLEY RD.  
 SAN ANTONIO, TX 78221

**ATTN:** STEVEN CLOUSE, SENIOR VP

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

Form Approved  
 OMB No. 2040-0004

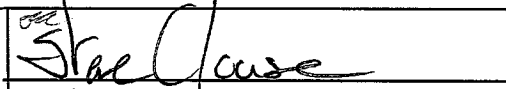
TX0077801	TX1-Q
PERMIT NUMBER	DISCHARGE NUMBER

**DMR Mailing ZIP CODE:** 78221  
**MAJOR (SUBR 13)**  
 7-DAY CHRONIC FRESHWATER - 001  
 External Outfall

MONITORING PERIOD	
MM/DD/YYYY	MM/DD/YYYY
10/1/2013	12/31/2013

No Discharge

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
NOEC Sub-Lethal Static Renewal 7 Day Chronic Pimephales promelas	SAMPLE MEASUREMENT	*****	*****	*****	99	99	*****		0	Quarterly	Comp24
TPP6C 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24
Pass/Fail Sub-Lethal Static Renewal 7 Day Chronic Ceriodaphnia dubia	SAMPLE MEASUREMENT	*****	*****	*****	0	0	*****		0	Quarterly	Comp24
TWP3B 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	pass=0/fail=1		Quarterly	COMP24
Pass/Fail Sub-Lethal Static Renewal 7 Day Chronic Pinephales promelas	SAMPLE MEASUREMENT	*****	*****	*****	0	0	*****		0	Quarterly	Comp24
TWP6C 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	pass=0/fail=1		Quarterly	COMP24
LOEC Lethal Survival Static Renewal 7 Day Chronic Ceriodaphnia dubia	SAMPLE MEASUREMENT	*****	*****	*****	Q	Q	*****		0	Quarterly	Comp24
TXP3B 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24
LOEC Lethal Survival Static Renewal 7 Day Chronic Pimephales promelas	SAMPLE MEASUREMENT	*****	*****	*****	Q	Q	*****		0	Quarterly	Comp24
TXP6C 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24
LOEC Sub-Lethal Reproduction Static Renewal 7 Day Chronic Ceriodaphnia dubia	SAMPLE MEASUREMENT	*****	*****	*****	Q	Q	*****		0	Quarterly	Comp24
TXP3B 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24
LOEC Sub-Lethal Reproduction Static Renewal 7 Day Chronic Pimephales promelas	SAMPLE MEASUREMENT	*****	*****	*****	Q	Q	*****		0	Quarterly	Comp24
TWP6C 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER  Steve Clouse Senior Vice President & COO  TYPED OR PRINTED	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE		DATE
			210-233-3774	12/13/2013	
			AREA Code	NUMBER	MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)  
 (PASS = 0 FAIL = 1) REPORT PASS AS '0' OR REPORT FAIL AS '1' IN CONCENTRATION ABOVE.

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

**NAME:** DOS RIOS WATER RECYLING CENTER  
**ADDRESS:** 3495 VALLEY RD  
 SAN ANTONIO, TX 78221

**FACILITY:** DOS RIOS WATER RECYCLING CTR.

**LOCATION:** 3495 VALLEY RD.  
 SAN ANTONIO, TX 78221

**ATTN:** STEVEN CLOUSE, SENIOR VP

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

Form Approved  
 OMB No. 2040-0004

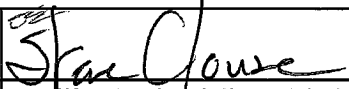
TX0077801	TX2-Q
PERMIT NUMBER	DISCHARGE NUMBER

**DMR Mailing ZIP CODE:** 78221  
**MAJOR**  
 (SUBR 13)  
 7-DAY CHRONIC FRESHWATER - 002  
 External Outfall

MONITORING PERIOD	
MM/DD/YYYY	MM/DD/YYYY
10/1/2013	12/31/2013

No Discharge

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Whole effluent toxicity - retest #1	<b>SAMPLE MEASUREMENT</b>	*****	*****	*****			*****				
22415 1 0 Effluent Gross	<b>PERMIT REQUIREMENT</b>	*****	*****	*****	Opt. Mon. 7 DA MIN	Opt. Mon. MO AV MN	*****	pass=0/fail=1		See Permit	COMP24
Whole effluent toxicity - retest #2	<b>SAMPLE MEASUREMENT</b>	*****	*****	*****			*****				
22416 1 0 Effluent Gross	<b>PERMIT REQUIREMENT</b>	*****	*****	*****	Opt. Mon. 7 DA MIN	Opt. Mon. MO AV MN	*****	pass=0/fail=1		See Permit	COMP24
Low Flow Pass/Fail Survival Test Static Renewal 7 Day Chronic Ceriodaphnia dubia	<b>SAMPLE MEASUREMENT</b>	*****	*****	*****			*****				
TLP3B 1 0 Effluent Gross	<b>PERMIT REQUIREMENT</b>	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	pass=0/fail=1		Quarterly	COMP24
Low Flow Pass/Fail Survival Test Static Renewal 7 Day Chronic Pimephales promelas	<b>SAMPLE MEASUREMENT</b>	*****	*****	*****			*****				
TLP6C 1 0 Effluent Gross	<b>PERMIT REQUIREMENT</b>	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	pass=0/fail=1		Quarterly	COMP24
NOEC Lethal Static Renewal 7 Day Chronic Ceriodaphnia dubia	<b>SAMPLE MEASUREMENT</b>	*****	*****	*****			*****				
TOP3B 1 0 Effluent Gross	<b>PERMIT REQUIREMENT</b>	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24
NOEC Lethal Static Renewal 7 Day Chronic Pimephales promelas	<b>SAMPLE MEASUREMENT</b>	*****	*****	*****			*****				
TOP6C 1 0 Effluent Gross	<b>PERMIT REQUIREMENT</b>	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24
NOEC Sub-Lethal Static Renewal 7 Day Chronic Ceriodaphnia dubia	<b>SAMPLE MEASUREMENT</b>	*****	*****	*****			*****				
TPP3B 1 0 Effluent Gross	<b>PERMIT REQUIREMENT</b>	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER  Steve Clouse Senior Vice President & COO  TYPED OR PRINTED	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE		DATE
			210-233-3774	12/13/2013	
			AREA Code	NUMBER	MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)  
 (PASS = 0 FAIL = 1) REPORT PASS AS '0' OR REPORT FAIL AS '1' IN CONCENTRATION ABOVE.

No Discharge

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

Form Approved  
OMB No. 2040-0004

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

NAME: DOS RIOS WATER RECYLING CENTER  
ADDRESS: 3495 VALLEY RD  
SAN ANTONIO, TX 78221

DISCHARGE MONITORING REPORT (DMR)

TX0077801	TX2-Q
PERMIT NUMBER	DISCHARGE NUMBER

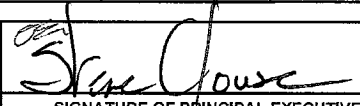
DMR Mailing ZIP CODE: 78221  
MAJOR (SUBR 13)  
7-DAY CHRONIC FRESHWATER - 002  
External Outfall

FACILITY: DOS RIOS WATER RECYCLING CTR.  
LOCATION: 3495 VALLEY RD.  
SAN ANTONIO, TX 78221  
ATTN: STEVEN CLOUSE, SENIOR VP

MONITORING PERIOD	
MM/DD/YYYY	MM/DD/YYYY
10/1/2013	12/31/2013

No Discharge

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
NOEC Sub-Lethal Static Renewal 7 Day Chronic Pimephales promelas	SAMPLE MEASUREMENT	*****	*****	*****							
TPP6C 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24
Pass/Fail Sub-Lethal Static Renewal 7 Day Chronic Ceriodaphnia dubia	SAMPLE MEASUREMENT	*****	*****	*****							
TWP3B 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	pass=0/fail=1		Quarterly	COMP24
Pass/Fail Sub-Lethal Static Renewal 7 Day Chronic Pinephales promelas	SAMPLE MEASUREMENT	*****	*****	*****							
TWP6C 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	pass=0/fail=1		Quarterly	COMP24
LOEC Lethal Survival Static Renewal 7 Day Chronic Ceriodaphnia dubia	SAMPLE MEASUREMENT	*****	*****	*****							
TXP3B 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24
LOEC Lethal Survival Static Renewal 7 Day Chronic Pimephales promelas	SAMPLE MEASUREMENT	*****	*****	*****							
TXP6C 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24
LOEC Sub-Lethal Reproduction Static Renewal 7 Day Chronic Ceriodaphnia dubia	SAMPLE MEASUREMENT	*****	*****	*****							
TYP3B 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24
LOEC Sub-Lethal Reproduction Static Renewal 7 Day Chronic Pimephales promelas	SAMPLE MEASUREMENT	*****	*****	*****							
TYP6C 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE	DATE
Steve Clouse Senior Vice President & COO			210-233-3774	12/13/2013
TYPED OR PRINTED		AREA Code	NUMBER	MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)  
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No Discharge



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

NAME: DOS RIOS WATER RECYLING CENTER  
 ADDRESS: 3495 VALLEY RD  
 SAN ANTONIO, TX 78221

FACILITY: DOS RIOS WATER RECYCLING CTR.

LOCATION: 3495 VALLEY RD.  
 SAN ANTONIO, TX 78221

ATTN: STEVEN CLOUSE, SENIOR VP

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

Form Approved  
 OMB No. 2040-0004

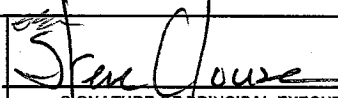
TX0077801	TX3-Q
PERMIT NUMBER	DISCHARGE NUMBER

DMR Mailing ZIP CODE: 78221  
 MAJOR (SUBR 13)  
 7-DAY CHRONIC FRESHWATER - 003  
 External Outfall

MONITORING PERIOD	
MM/DD/YYYY	MM/DD/YYYY
10/1/2013	12/31/2013

No Discharge

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Whole effluent toxicity - retest #1	SAMPLE MEASUREMENT	*****	*****	*****			*****				
22415 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Opt. Mon. 7 DA MIN	Opt. Mon. MO AV MN	*****	pass=0/fail=1		See Permit	COMP24
Whole effluent toxicity - retest #2	SAMPLE MEASUREMENT	*****	*****	*****			*****				
22416 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Opt. Mon. 7 DA MIN	Opt. Mon. MO AV MN	*****	pass=0/fail=1		See Permit	COMP24
Low Flow Pass/Fail Survival Test Static Renewal 7 Day Chronic Ceriodaphnia dubia	SAMPLE MEASUREMENT	*****	*****	*****			*****				
TOP3B 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	pass=0/fail=1		Quarterly	COMP24
Low Flow Pass/Fail Survival Test Static Renewal 7 Day Chronic Pimephales promelas	SAMPLE MEASUREMENT	*****	*****	*****			*****				
TOP6C 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	pass=0/fail=1		Quarterly	COMP24
NOEC Lethal Static Renewal 7 Day Chronic Ceriodaphnia dubia	SAMPLE MEASUREMENT	*****	*****	*****			*****				
TOP3B 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24
NOEC Lethal Static Renewal 7 Day Chronic Pimephales promelas	SAMPLE MEASUREMENT	*****	*****	*****			*****				
TOP6C 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24
NOEC Sub-Lethal Static Renewal 7 Day Chronic Ceriodaphnia dubia	SAMPLE MEASUREMENT	*****	*****	*****			*****				
TPP3B 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE	DATE
Steve Clouse Senior Vice President & COO			210-233-3774	12/13/2013
TYPED OR PRINTED			AREA Code	NUMBER

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)  
 (PASS = 0 FAIL = 1) REPORT PASS AS '0' OR REPORT FAIL AS '1' IN CONCENTRATION ABOVE.

No Discharge

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

**NAME:** DOS RIOS WATER RECYLING CENTER  
**ADDRESS:** 3495 VALLEY RD  
 SAN ANTONIO, TX 78221

**FACILITY:** DOS RIOS WATER RECYCLING CTR.  
**LOCATION:** 3495 VALLEY RD.  
 SAN ANTONIO, TX 78221

**ATTN:** STEVEN CLOUSE, SENIOR VP

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

Form Approved  
 OMB No. 2040-0004

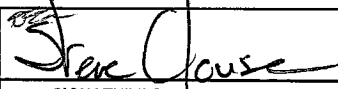
TX0077801	TX3-Q
<b>PERMIT NUMBER</b>	<b>DISCHARGE NUMBER</b>

**DMR Mailing ZIP CODE:** 78221  
**MAJOR**  
 (SUBR 13)  
 7-DAY CHRONIC FRESHWATER - 003  
 External Outfall

MONITORING PERIOD	
MM/DD/YYYY	MM/DD/YYYY
10/1/2013	12/31/2013

No Discharge

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
NOEC Sub-Lethal Static Renewal 7 Day Chronic Pimephales promelas	<b>SAMPLE MEASUREMENT</b>	*****	*****	*****				*****			
TPP6C 10 Effluent Gross	<b>PERMIT REQUIREMENT</b>	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24
Pass/Fail Sub-Lethal Static Renewal 7 Day Chronic Ceriodaphnia dubia	<b>SAMPLE MEASUREMENT</b>	*****	*****	*****				*****			
TWP3B 10 Effluent Gross	<b>PERMIT REQUIREMENT</b>	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	pass=0/fail=1		Quarterly	COMP24
Pass/Fail Sub-Lethal Static Renewal 7 Day Chronic Pinephales promelas	<b>SAMPLE MEASUREMENT</b>	*****	*****	*****				*****			
TWP6C 10 Effluent Gross	<b>PERMIT REQUIREMENT</b>	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	pass=0/fail=1		Quarterly	COMP24
LOEC Lethal Survival Static Renewal 7 Day Chronic Ceriodaphnia dubia	<b>SAMPLE MEASUREMENT</b>	*****	*****	*****				*****			
TXP3B 10 Effluent Gross	<b>PERMIT REQUIREMENT</b>	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24
LOEC Lethal Survival Static Renewal 7 Day Chronic Pimephales promelas	<b>SAMPLE MEASUREMENT</b>	*****	*****	*****				*****			
TXP6C 10 Effluent Gross	<b>PERMIT REQUIREMENT</b>	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24
LOEC Sub-Lethal Reproduction Static Renewal 7 Day Chronic Ceriodaphnia dubia	<b>SAMPLE MEASUREMENT</b>	*****	*****	*****				*****			
TYP3B 10 Effluent Gross	<b>PERMIT REQUIREMENT</b>	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24
LOEC Sub-Lethal Reproduction Static Renewal 7 Day Chronic Pimephales promelas	<b>SAMPLE MEASUREMENT</b>	*****	*****	*****				*****			
TYP6C 10 Effluent Gross	<b>PERMIT REQUIREMENT</b>	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER  Steve Clouse Senior Vice President & COO  TYPED OR PRINTED	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE	DATE	
			210-233-3774	12/13/2013	
			AREA Code	NUMBER	MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)  
 (PASS = 0 FAIL = 1) REPORT PASS AS '0' OR REPORT FAIL AS '1' IN CONCENTRATION ABOVE.

No Discharge

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

NAME: DOS RIOS WATER RECYLING CENTER  
 ADDRESS: 3495 VALLEY RD  
 SAN ANTONIO, TX 78221

FACILITY: DOS RIOS WATER RECYCLING CTR.  
 LOCATION: 3495 VALLEY RD.  
 SAN ANTONIO, TX 78221  
 ATTN: STEVEN CLOUSE, SENIOR VP

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

Form Approved  
 OMB No. 2040-0004

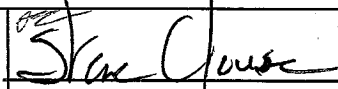
TX0077801	TX4-Q
PERMIT NUMBER	DISCHARGE NUMBER

DMR Mailing ZIP CODE: 78221  
 MAJOR (SUBR 13)  
 7-DAY CHRONIC FRESHWATER - 004  
 External Outfall

MONITORING PERIOD	
MM/DD/YYYY	MM/DD/YYYY
10/1/2013	12/31/2013

No Discharge

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Whole effluent toxicity - retest #1 22415 1 0 Effluent Gross	SAMPLE MEASUREMENT	*****	*****	*****							
	PERMIT REQUIREMENT	*****	*****	*****	Opt. Mon. 7 DA MIN	Opt. Mon. MO AV MN	*****	pass=0/fail=1		See Permit	COMP24
Whole effluent toxicity - retest #2 22416 1 0 Effluent Gross	SAMPLE MEASUREMENT	*****	*****	*****							
	PERMIT REQUIREMENT	*****	*****	*****	Opt. Mon. 7 DA MIN	Opt. Mon. MO AV MN	*****	pass=0/fail=1		See Permit	COMP24
Low Flow Pass/Fail Survival Test Static Renewal 7 Day Chronic Ceriodaphnia dubia TLP3B 1 0 Effluent Gross	SAMPLE MEASUREMENT	*****	*****	*****							
	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	pass=0/fail=1		Quarterly	COMP24
Low Flow Pass/Fail Survival Test Static Renewal 7 Day Chronic Pimephales promelas TLP6C 1 0 Effluent Gross	SAMPLE MEASUREMENT	*****	*****	*****							
	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	pass=0/fail=1		Quarterly	COMP24
NOEC Lethal Static Renewal 7 Day Chronic Ceriodaphnia dubia TOP3B 1 0 Effluent Gross	SAMPLE MEASUREMENT	*****	*****	*****							
	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24
NOEC Lethal Static Renewal 7 Day Chronic Pimephales promelas TOP6C 1 0 Effluent Gross	SAMPLE MEASUREMENT	*****	*****	*****							
	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24
NOEC Sub-Lethal Static Renewal 7 Day Chronic Ceriodaphnia dubia TPP3B 1 0 Effluent Gross	SAMPLE MEASUREMENT	*****	*****	*****							
	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE	DATE	
Steve Clouse Senior Vice President & COO TYPED OR PRINTED			210-233-3774	12/13/2013	
			AREA Code	NUMBER	MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)  
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No Discharge

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

NAME: DOS RIOS WATER RECYLING CENTER  
 ADDRESS: 3495 VALLEY RD  
 SAN ANTONIO, TX 78221

FACILITY: DOS RIOS WATER RECYCLING CTR.  
 LOCATION: 3495 VALLEY RD.  
 SAN ANTONIO, TX 78221

ATTN: STEVEN CLOUSE, SENIOR VP

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

Form Approved  
 OMB No. 2040-0004

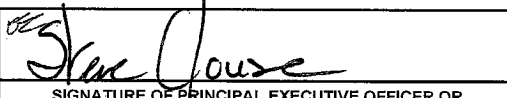
TX0077801	TX4-Q
PERMIT NUMBER	DISCHARGE NUMBER

DMR Mailing ZIP CODE: 78221  
 MAJOR (SUBR 13)  
 7-DAY CHRONIC FRESHWATER - 004  
 External Outfall

MONITORING PERIOD	
MM/DD/YYYY	MM/DD/YYYY
10/1/2013	12/31/2013

No Discharge

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
NOEC Sub-Lethal Static Renewal 7 Day Chronic Pimephales promelas	SAMPLE MEASUREMENT	*****	*****	*****				*****			
TPP6C 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24
Pass/Fail Sub-Lethal Static Renewal 7 Day Chronic Ceriodaphnia dubia	SAMPLE MEASUREMENT	*****	*****	*****				*****			
TWP3B 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	pass=0/fail=1		Quarterly	COMP24
Pass/Fail Sub-Lethal Static Renewal 7 Day Chronic Pinephales promelas	SAMPLE MEASUREMENT	*****	*****	*****				*****			
TWP6C 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	pass=0/fail=1		Quarterly	COMP24
LOEC Lethal Survival Static Renewal 7 Day Chronic Ceriodaphnia dubia	SAMPLE MEASUREMENT	*****	*****	*****				*****			
TXP3B 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24
LOEC Lethal Survival Static Renewal 7 Day Chronic Pimephales promelas	SAMPLE MEASUREMENT	*****	*****	*****				*****			
TXP6C 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24
LOEC Sub-Lethal Reproduction Static Renewal 7 Day Chronic Ceriodaphnia dubia	SAMPLE MEASUREMENT	*****	*****	*****				*****			
TYP3B 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24
LOEC Sub-Lethal Reproduction Static Renewal 7 Day Chronic Pimephales promelas	SAMPLE MEASUREMENT	*****	*****	*****				*****			
TYP6C 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24

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Steve Clouse Senior Vice President & COO			210-233-3774	12/13/2013	
TYPED OR PRINTED			AREA Code	NUMBER	MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)  
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No Discharge

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

NAME: DOS RIOS WATER RECYLING CENTER  
 ADDRESS: 3495 VALLEY RD  
 SAN ANTONIO, TX 78221

FACILITY: DOS RIOS WATER RECYCLING CTR.

LOCATION: 3495 VALLEY RD.  
 SAN ANTONIO, TX 78221

ATTN: STEVEN CLOUSE, SENIOR VP

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

Form Approved  
 OMB No. 2040-0004

TX0077801	TX5-Q
PERMIT NUMBER	DISCHARGE NUMBER

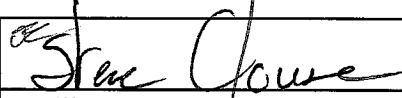
DMR Mailing ZIP CODE: 78221

MAJOR (SUBR 13)  
 7-DAY CHRONIC FRESHWATER - 005  
 External Outfall

MONITORING PERIOD	
MM/DD/YYYY	MM/DD/YYYY
10/1/2013	12/31/2013

No Discharge

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Whole effluent toxicity - retest #1	SAMPLE MEASUREMENT	*****	*****	*****							
22415 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Opt. Mon. 7 DA MIN	Opt. Mon. MO AV MN	*****	pass=0/fail=1		See Permit	COMP24
Whole effluent toxicity - retest #2	SAMPLE MEASUREMENT	*****	*****	*****							
22416 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Opt. Mon. 7 DA MIN	Opt. Mon. MO AV MN	*****	pass=0/fail=1		See Permit	COMP24
Low Flow Pass/Fail Survival Test Static Renewal 7 Day Chronic Ceriodaphnia dubia TLP3B 1 0 Effluent Gross	SAMPLE MEASUREMENT	*****	*****	*****							
	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	pass=0/fail=1		Quarterly	COMP24
Low Flow Pass/Fail Survival Test Static Renewal 7 Day Chronic Pimephales promelas TLP6C 1 0 Effluent Gross	SAMPLE MEASUREMENT	*****	*****	*****							
	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	pass=0/fail=1		Quarterly	COMP24
NOEC Lethal Static Renewal 7 Day Chronic Ceriodaphnia dubia TOP3B 1 0 Effluent Gross	SAMPLE MEASUREMENT	*****	*****	*****							
	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24
NOEC Lethal Static Renewal 7 Day Chronic Pimephales promelas TOP6C 1 0 Effluent Gross	SAMPLE MEASUREMENT	*****	*****	*****							
	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24
NOEC Sub-Lethal Static Renewal 7 Day Chronic Ceriodaphnia dubia TPP3B 1 0 Effluent Gross	SAMPLE MEASUREMENT	*****	*****	*****							
	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24

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Steve Clouse Senior Vice President & COO TYPED OR PRINTED			210-233-3774	12/13/2013
		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA Code	NUMBER
				MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)  
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PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)

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 ADDRESS: 3495 VALLEY RD  
 SAN ANTONIO, TX 78221

FACILITY: DOS RIOS WATER RECYCLING CTR.

LOCATION: 3495 VALLEY RD.  
 SAN ANTONIO, TX 78221

ATTN: STEVEN CLOUSE, SENIOR VP

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

Form Approved  
 OMB No. 2040-0004

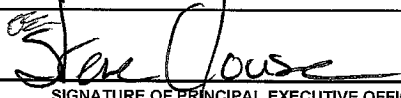
TX0077801	TX5-Q
PERMIT NUMBER	DISCHARGE NUMBER

DMR Mailing ZIP CODE: 78221  
 MAJOR (SUBR 13)  
 7-DAY CHRONIC FRESHWATER - 005  
 External Outfall

MONITORING PERIOD	
MM/DD/YYYY	MM/DD/YYYY
10/1/2013	12/31/2013

No Discharge

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
NOEC Sub-Lethal Static Renewal 7 Day Chronic Pimephales promelas	SAMPLE MEASUREMENT	*****	*****	*****							
TPP6C 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24
Pass/Fail Sub-Lethal Static Renewal 7 Day Chronic Ceriodaphnia dubia	SAMPLE MEASUREMENT	*****	*****	*****							
TWP3B 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	pass=0/fail=1		Quarterly	COMP24
Pass/Fail Sub-Lethal Static Renewal 7 Day Chronic Pinephales promelas	SAMPLE MEASUREMENT	*****	*****	*****							
TWP6C 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	pass=0/fail=1		Quarterly	COMP24
LOEC Lethal Survival Static Renewal 7 Day Chronic Ceriodaphnia dubia	SAMPLE MEASUREMENT	*****	*****	*****							
TXP3B 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24
LOEC Lethal Survival Static Renewal 7 Day Chronic Pimephales promelas	SAMPLE MEASUREMENT	*****	*****	*****							
TXP6C 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24
LOEC Sub-Lethal Reproduction Static Renewal 7 Day Chronic Ceriodaphnia dubia	SAMPLE MEASUREMENT	*****	*****	*****							
TYP3B 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24
LOEC Sub-Lethal Reproduction Static Renewal 7 Day Chronic Pimephales promelas	SAMPLE MEASUREMENT	*****	*****	*****							
TYP6C 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER  Steve Clouse Senior Vice President & COO  TYPED OR PRINTED	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE	DATE	
			210-233-3774	12/13/2013	
			AREA Code	NUMBER	MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)  
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No Discharge

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

NAME: DOS RIOS WATER RECYLING CENTER  
 ADDRESS: 3495 VALLEY RD  
 SAN ANTONIO, TX 78221

FACILITY: DOS RIOS WATER RECYCLING CTR.  
 LOCATION: 3495 VALLEY RD.  
 SAN ANTONIO, TX 78221  
 ATTN: STEVEN CLOUSE, SENIOR VP

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

Form Approved  
 OMB No. 2040-0004

TX0077801	TX6-Q
PERMIT NUMBER	DISCHARGE NUMBER
MONITORING PERIOD	
MM/DD/YYYY	MM/DD/YYYY
10/1/2013	12/31/2013

DMR Mailing ZIP CODE: 78221  
 MAJOR (SUBR 13)  
 7-DAY CHROINC FRESHWATER - 006  
 External Outfall

No Discharge

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Whole effluent toxicity - retest #1	SAMPLE MEASUREMENT	*****	*****	*****							
22415 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Opt. Mon. 7 DA MIN	Opt. Mon. MO AV MN	*****	pass=0/fail=1		See Permit	COMP24
Whole effluent toxicity - retest #2	SAMPLE MEASUREMENT	*****	*****	*****							
22416 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Opt. Mon. 7 DA MIN	Opt. Mon. MO AV MN	*****	pass=0/fail=1		See Permit	COMP24
Low Flow Pass/Fail Survival Test Static Renewal 7 Day Chronic Ceriodaphnia dubia	SAMPLE MEASUREMENT	*****	*****	*****							
TLP3B 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	pass=0/fail=1		Quarterly	COMP24
Low Flow Pass/Fail Survival Test Static Renewal 7 Day Chronic Pimephales promelas	SAMPLE MEASUREMENT	*****	*****	*****							
TLP6C 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	pass=0/fail=1		Quarterly	COMP24
NOEC Lethal Static Renewal 7 Day Chronic Ceriodaphnia dubia	SAMPLE MEASUREMENT	*****	*****	*****							
TOP3B 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24
NOEC Lethal Static Renewal 7 Day Chronic Pimephales promelas	SAMPLE MEASUREMENT	*****	*****	*****							
TOP6C 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24
NOEC Sub-Lethal Static Renewal 7 Day Chronic Ceriodaphnia dubia	SAMPLE MEASUREMENT	*****	*****	*****							
TPP3B 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	TELEPHONE	DATE
Steve Clouse Senior Vice President & COO		210-233-3774	12/13/20 3
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA Code

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)  
 (PASS = 0 FAIL = 1) REPORT PASS AS '0' OR REPORT FAIL AS '1' IN CONCENTRATION ABOVE.

No Discharge

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

NAME: DOS RIOS WATER RECYLING CENTER  
 ADDRESS: 3495 VALLEY RD  
 SAN ANTONIO, TX 78221

FACILITY: DOS RIOS WATER RECYCLING CTR.  
 LOCATION: 3495 VALLEY RD.  
 SAN ANTONIO, TX 78221

ATTN: STEVEN CLOUSE, SENIOR VP

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

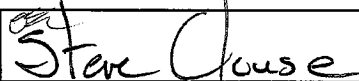
Form Approved  
 OMB No. 2040-0004

TX0077801	TX6-Q
PERMIT NUMBER	DISCHARGE NUMBER
MONITORING PERIOD	
MM/DD/YYYY	MM/DD/YYYY
10/1/2013	12/31/2013

DMR Mailing ZIP CODE: 78221  
 MAJOR (SUBR 13)  
 7-DAY CHROINC FRESHWATER - 006  
 External Outfall

No Discharge

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
NOEC Sub-Lethal Static Renewal 7 Day Chronic Pimephales promelas	SAMPLE MEASUREMENT	*****	*****	*****			*****				
TPP6C 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24
Pass/Fail Sub-Lethal Static Renewal 7 Day Chronic Ceriodaphnia dubia	SAMPLE MEASUREMENT	*****	*****	*****			*****				
TWP3B 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	pass=0/fail=1		Quarterly	COMP24
Pass/Fail Sub-Lethal Static Renewal 7 Day Chronic Pimephales promelas	SAMPLE MEASUREMENT	*****	*****	*****			*****				
TWP6C 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	pass=0/fail=1		Quarterly	COMP24
LOEC Lethal Survival Static Renewal 7 Day Chronic Ceriodaphnia dubia	SAMPLE MEASUREMENT	*****	*****	*****			*****				
TXP3B 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24
LOEC Lethal Survival Static Renewal 7 Day Chronic Pimephales promelas	SAMPLE MEASUREMENT	*****	*****	*****			*****				
TXP6C 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24
LOEC Sub-Lethal Reproduction Static Renewal 7 Day Chronic Ceriodaphnia dubia	SAMPLE MEASUREMENT	*****	*****	*****			*****				
TYP3B 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24
LOEC Sub-Lethal Reproduction Static Renewal 7 Day Chronic Pimephales promelas	SAMPLE MEASUREMENT	*****	*****	*****			*****				
TYP6C 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE	DATE
Steve Clouse Senior Vice President & COO			210-233-3774	12/13/2013
TYPED OR PRINTED			AREA Code	NUMBER

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)  
 (PASS = 0 FAIL = 1) REPORT PASS AS '0' OR REPORT FAIL AS '1' IN CONCENTRATION ABOVE.

No Discharge



# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

P.O. BOX 13087 • AUSTIN, TEXAS 78711-3087  
MONTHLY EFFLUENT REPORT



PAGE 1

SAN ANTONIO WATER SYSTEM  
3495 VALLEY RD  
SAN ANTONIO TX 78221-5238



40B	WQ0010137-033	02	13	11	12647
SYS	PERMIT NUMBER	SET	YEAR	MO.	EID

THIS REPORT TO BE USED FOR COMBINED MONITORING for 001/800/900  
**SEE BACK FOR INSTRUCTIONS AND DEFINITIONS.**  
 PLEASE RETAIN A PHOTOCOPY FOR YOUR RECORDS.

TCEQ COPY

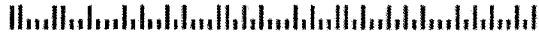
PARAMETER	EFFLUENT CONDITION		NO. EX.	FREQUENCY OF ANALYSIS		SAMPLE TYPE		
	REPORTED	PERMITTED		VALUE	UNITS			
500507124 FLOW DLY AVG	REPORTED	PERMITTED	86.78	MGD	0	02	11	
500507128 FLOW ANN AVG	REPORTED	PERMITTED	77.46	MGD	0	02	11	
NUMBER OF OPERATOR CERTIFICATE	REPORTED	PERMITTED	WW0013780	NUMBER	0	01		NA
EXPIRATION OF OPERATOR CERTIFICATE	REPORTED	PERMITTED	160715	DATE	0	01		NA
CLASS OF OPERATOR CERTIFICATE	REPORTED	PERMITTED	A	LETTER	0	01		NA
	REPORTED	PERMITTED						
	REPORTED	PERMITTED						
	REPORTED	PERMITTED						
	REPORTED	PERMITTED						
	REPORTED	PERMITTED						
	REPORTED	PERMITTED						
	REPORTED	PERMITTED						

**COMMENTS AND EXPLANATIONS** *(Reference all attachments here)*

I CERTIFY THAT I AM FAMILIAR WITH THE INFORMATION CONTAINED IN THIS REPORT AND THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF SUCH INFORMATION IS TRUE AND COMPLETE AND ACCURATE.	<b>NAME</b> Tad Eaton Manager-Prod & Treat Ops	<b>SIGNATURE</b> 	<b>DATE</b> 13.12.12
<b>TELEPHONE NUMBER</b> 210 233 3774	<b>PLANT OPERATOR</b> Steven Clouse Senior Vice President & COO	<b>PLANT OPERATOR</b> 	<b>YEAR MO. DAY</b> 13 12 13
<b>AREA CODE</b>	<b>NUMBER</b>	<b>EXECUTIVE OFFICER</b>	<b>EXECUTIVE OFFICER</b>

# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

P.O. BOX 13087 • AUSTIN, TEXAS 78711-3087  
MONTHLY EFFLUENT REPORT



PAGE 1

SAN ANTONIO WATER SYSTEM  
3495 VALLEY RD  
SAN ANTONIO TX 78221-5238



40B	WQ0010137-033	02	13	11	12551
SYS	PERMIT NUMBER	SET	YEAR	MO.	EID

THIS REPORT TO BE USED FOR RECLAIMED WATER TYPE I  
SEE BACK FOR INSTRUCTIONS AND DEFINITIONS.  
PLEASE RETAIN A PHOTOCOPY FOR YOUR RECORDS.

TCEQ COPY

PARAMETER	EFFLUENT CONDITION		NO. EX.	FREQUENCY OF ANALYSIS		SAMPLE TYPE		
	REPORTED	PERMITTED		VALUE	UNITS			
000085342 TRANSFER DAYS/MON	REPORTED		24	DAY	0	01		01
	PERMITTED					01	NA	01 NA
316164024 E-COLI	REPORTED		2.39	#/100 ML	0	08	1/Day	03
DLY AVG	PERMITTED		20.000			11	2/WEEK	03 GRABPKLOAD
316164030 E-COLI IND GRAB	REPORTED		15.0	#/100 ML	0	08	1/Day	03
	PERMITTED		75.000			11	2/WEEK	03 GRABPKLOAD
500507124 FLOW DLY AVG	REPORTED		2.98	MGD	0	02		11
	PERMITTED					02	CONT	11 CONT
500507128 FLOW ANN AVG	REPORTED		1.21	MGD	0	02		11
	PERMITTED					02	CONT	11 CONT
800821024 BOD CARB DLY AVG	REPORTED		2.0	MG/L	0	08	1/Day	10 12-PRT-COM
	PERMITTED		5.000			11	2/WEEK	03 GRABPKLOAD
820796624 TURBDITY 30DAYAVG	REPORTED		0.71	NTU	0	08	1/Day	10 12-PRT-COM
	PERMITTED		3.000			11	2/WEEK	03 GRABPKLOAD
NUMBER OF OPERATOR CERTIFICATE	REPORTED		WW0013780	NUMBER	0	01		NA
	PERMITTED					01	01	NA NA
EXPIRATION OF OPERATOR CERTIFICATE	REPORTED		160715	DATE	0	01		NA
	PERMITTED					01	01	NA NA
CLASS OF OPERATOR CERTIFICATE	REPORTED		A	LETTER	0	01		NA
	PERMITTED					01	01	NA NA
	REPORTED							
	PERMITTED							

COMMENTS AND EXPLANATIONS *(Reference all attachments here)*

E-Coli substituted for Fecal Coliform

I CERTIFY THAT I AM FAMILIAR WITH THE INFORMATION CONTAINED IN THIS REPORT AND THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF SUCH INFORMATION IS TRUE AND COMPLETE AND ACCURATE.		NAME	SIGNATURE	DATE
		Tad Eaton Manager-Prod & Treat Ops		13   12   12
TELEPHONE NUMBER		PLANT OPERATOR	PLANT OPERATOR	YEAR MO. DAY
2   1   0	2   3   3	3   7   7   4	Steven Clouse Senior Vice President & COO	
AREA CODE	NUMBER	EXECUTIVE OFFICER	EXECUTIVE OFFICER	YEAR MO. DAY
				13   12   13

# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

P.O. BOX 13087 • AUSTIN, TEXAS 78711-3087  
MONTHLY EFFLUENT REPORT



PAGE 1

SAN ANTONIO WATER SYSTEM  
3495 VALLEY RD  
SAN ANTONIO TX 78221-5238



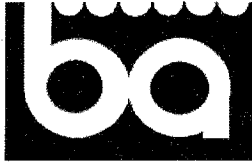
40B	WQ0010137-033	02	13	11	12552
SYS	PERMIT NUMBER	SET	YEAR	MO.	EID

THIS REPORT TO BE USED FOR RECLAIMED WATER TYPE II  
**SEE BACK FOR INSTRUCTIONS AND DEFINITIONS.**  
 PLEASE RETAIN A PHOTOCOPY FOR YOUR RECORDS. TCEQ COPY

PARAMETER	EFFLUENT CONDITION		NO. EX.	FREQUENCY OF ANALYSIS		SAMPLE TYPE		
	REPORTED	PERMITTED		VALUE	UNITS			
000085342 TRANSFER DAYS/MON	REPORTED	PERMITTED	0	DAY	01	NA	01	NA
316164024 FEC. COLI	REPORTED	PERMITTED		#/100 ML				
DLY AVG	REPORTED	PERMITTED	200.000		14	1/WEEK	03	GRABPKLOAD
316164030 FEC. COLI IND GRAB	REPORTED	PERMITTED		#/100 ML	14	1/WEEK	03	GRABPKLOAD
500507124 FLOW DLY AVG	REPORTED	PERMITTED		MGD	02	CONT	11	CONT
500507128 FLOW ANN AVG	REPORTED	PERMITTED		MGD	02	CONT	11	CONT
800821024 BOD CARB DLY AVG	REPORTED	PERMITTED	20.000	MG/L	14	1/WEEK	03	GRABPKLOAD
NUMBER OF OPERATOR CERTIFICATE	REPORTED	PERMITTED	WW0013780	NUMBER	01			NA
EXPIRATION OF OPERATOR CERTIFICATE	REPORTED	PERMITTED	160715	DATE	01			NA
CLASS OF OPERATOR CERTIFICATE	REPORTED	PERMITTED	A	LETTER	01			NA
	REPORTED	PERMITTED						
	REPORTED	PERMITTED						

COMMENTS AND EXPLANATIONS *(Reference all attachments here)*

I CERTIFY THAT I AM FAMILIAR WITH THE INFORMATION CONTAINED IN THIS REPORT AND THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF SUCH INFORMATION IS TRUE AND COMPLETE AND ACCURATE.	NAME	SIGNATURE	DATE
	Tad Eaton Manager-Prod & Treat Ops		11/3/12
TELEPHONE NUMBER	PLANT OPERATOR	PLANT OPERATOR	YEAR MO. DAY
2   1   0   2   3   3   3   7   7   4	Steven Clouse Senior Vice President & COO		11   3   12   11   3
AREA CODE	EXECUTIVE OFFICER	EXECUTIVE OFFICER	YEAR MO. DAY



# Bio-Aquatic Testing, Inc.



TCEQ TNI Accredited

**San Antonio Water System  
Dos Rios WRC  
OUTFALL 001**

**Chronic Biomonitoring Report**

**55087**

*Ceriodaphnia dubia*  
*Pimephales promelas*

**November 05, 2013**

Approved by: *Chris Robason*  
*Chris Robason, President*

*Bio-Aquatic Testing, Inc. ♦ 2501 Mayes Rd. Ste. 100 ♦ Carrollton, Texas ♦ 75006*

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LITERATURE REFERENCES	Appendix C
CHAIN-OF-CUSTODY SHEETS	Appendix D
REGULATORY AGENCY TABLES	Appendix E

**Unless otherwise noted in the body of the report, all data reported in this document are in compliance with current TNI standards and apply only to the samples referenced within. This report document may not be edited or reproduced in part or in full by any other entity, unless Bio-Aquatic Testing, Inc. issues written approval.**

**\*HAND-WRITTEN RAW DATA TABLES ARE AVAILABLE UPON REQUEST**

**BIO-AQUATIC TESTING, INC.**

2501 Mayes Road, Suite 100  
Carrollton, Texas 75006  
Tel: (972) 242-7750  
Fax: (972) 242-7749

TOXICITY TEST REPORT - Chronic

---

Client: San Antonio Water System  
Facility: Dos Rios WRC  
Permit No. WQ0010137033

Sample: 001  
Laboratory Number: 55087  
Date: November 05, 2013

*Ceriodaphnia dubia* **passed** survival and reproduction testing requirements. *Pimephales promelas* **passed** survival and growth testing requirements.

---

**SAMPLE COLLECTION:** Composite effluent samples from the San Antonio Water System, Dos Rios WRC, were received on November 05, 2013, November 07, 2013, and November 09, 2013. Effluent samples were collected from Outfall 001 by facility personnel.

The effluent samples were analyzed for total residual chlorine using the Hanna Ion Specific Meter #193711 and contained <0.10 mg/L, <0.10 mg/L, and <0.10 mg/L, respectively. Effluent and laboratory dilution water pH, temperature, and dissolved oxygen data were collected daily.

**TEST PROCEDURES:**  
*Ceriodaphnia dubia*

**EPA METHOD:** 1002

The seven-day (three brood) Chronic *Ceriodaphnia dubia* survival and reproduction test was initiated at 13:08 hours on November 05, 2013. Five effluent concentrations of 31%, 42%, 56%, 74% and 99% were prepared using synthetic water as dilution water. The test was set up with 30mL plastic cups containing 15mL of test solution or control dilution water. Each effluent concentration or control dilution water included ten replicate cups with one organism in each cup. The control was conducted concurrently with the test. Test organisms were less than 24-hour old laboratory cultured neonates. Neonates were introduced into the test solutions using a blocking design. The test was renewed daily with newly prepared solutions. Food consisting of a half-milliliter suspension of the green algae, *Selenastrum capricornutum*, and YTC was added to the test solutions each day. The test proceeded for seven days or until 60% of the females in the control had three broods. Data on survival and number of young produced per female were collected daily. The test ended at 11:40 hours on November 12, 2013. Survival and reproduction data were statistically ( $p=0.05$ ) analyzed according to EPA procedures to determine the Lowest Observable Effect Concentration (LOEC) and the No Observable Effect Concentration (NOEC).

## SURVIVAL:

### *Ceriodaphnia dubia*

Fisher's Exact test on *Ceriodaphnia dubia* survival test data demonstrated no statistically significant differences between the control and any of the effluent concentrations tested.

**LOEC: Not Calculable (Q)**

**NOEC: 99% Effluent**

## REPRODUCTION:

### *Ceriodaphnia dubia*

The *Ceriodaphnia dubia* reproduction data were normally distributed at the alpha level of 0.01 (13.277) using the Chi-square test for normality. Reproduction data were shown not to be homogeneous using Bartlett's test at the alpha level of 0.01 (15.09) without data transformations. Using ANOVA and Dunnett's or Steel's Many- One Rank Test or Wilcoxon Rank Sum Test (with Bonferroni adjustment as appropriate for Sub-Lethality) *Ceriodaphnia dubia* reproduction data demonstrated no statistically significant differences between the control and any of the effluent concentrations tested. Replicate "6" of the 42% effluent concentration, replicate "6" of the 56% effluent concentration and replicate "1" of the 99% effluent concentration were all excluded from the statistical analysis as they were determined to be outliers.

**LOEC: Not Calculable (Q)**

**NOEC: 99% Effluent**

## TEST PROCEDURES:

### *Pimephales promelas*

#### EPA METHOD: 1000

The seven-day Chronic *Pimephales promelas* survival and growth test was initiated at 17:10 hours on November 05, 2013. Five effluent concentrations of 31%, 42%, 56%, 74% and 99% were prepared using synthetic water as dilution water. The test was set up with 450mL plastic cups containing 250mL of test solution as test chambers. Each concentration consisted of five replicate chambers containing eight organisms each, giving a total of 40 (forty) per treatment. The control test was conducted concurrently with the test. Test organisms were laboratory-cultured *Pimephales promelas* larvae less than 24-hours old. The number of surviving larvae and water quality parameters in the old test solutions were recorded after each 24-hour period. The test was renewed daily with fresh solutions. Surviving larvae in each test chamber were fed freshly hatched brine shrimp two times per day. The test proceeded for seven days.

At the end of the test, all organisms were sacrificed, dried, and weighed. Data on surviving organisms and water quality were collected. The test ended at 10:45 hours on November 12, 2013. Survival and growth (weight) were statistically ( $p=0.05$ ) analyzed according to EPA procedures to determine the Lowest Observable Effect Concentration (LOEC) and the No Observable Effect Concentration (NOEC).

**SURVIVAL:**

*Pimephales promelas*

The non-parametric Steel's Many-One Rank test performed on *Pimephales promelas* survival data demonstrated no statistically significant differences between the control and any of the effluent concentrations tested.

**LOEC: Not Calculable (Q)**

**NOEC: 99% Effluent**

**GROWTH:**

*Pimephales promelas*

The *Pimephales promelas* growth data were normally distributed at the alpha level of 0.01 (0.900) using Shapiro Wilk's test for normality. Growth data were shown to be homogeneous using Bartlett's test at the alpha level of 0.01 (15.09) without data transformations. ANOVA and Dunnett's test on *Pimephales promelas* growth data demonstrated no statistically significant differences between the control and any of the effluent concentrations tested.

**LOEC: Not Calculable (Q)**

**NOEC: 99% Effluent**



**BIO-AQUATIC TESTING, INC.**  
**TOXICITY TEST**

**Chronic**      *Ceriodaphnia dubia*

**Client:**      San Antonio Water System      Dos Rios WRC

**Lab ID:** 55087

**Permit Number:** TPDES WQ0010137033

**Test Temperature (oC):** 25 ± 1

**Sample Type:** Composite

**Photo Period:** 16 hours light, 8 hours dark

**Outfall Name:** 001

**Dilution Water:** synthetic

**Receiving Water Name:**

**Begin Date:** 11/5/2013

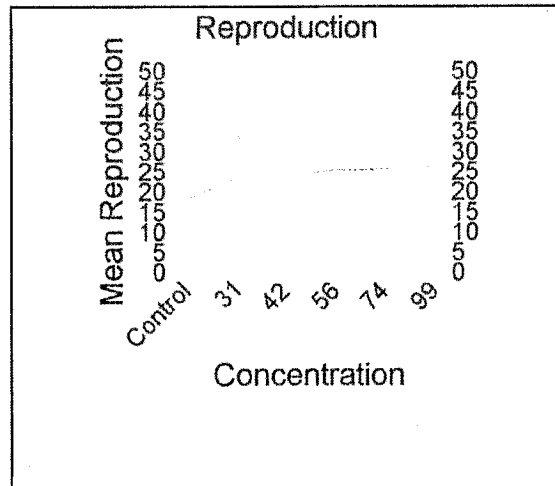
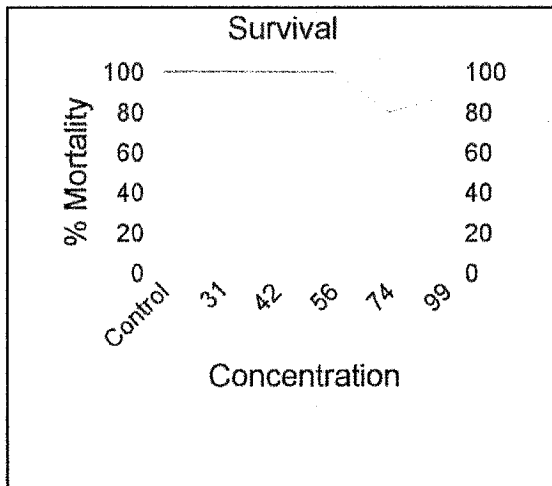
**End Date:** 11/12/2013

**Test Start Time:** 13:08      **Test End Time:** 11:40

**SURVIVAL AND REPRODUCTION TABLE**

FEMALE #	Control	31	%	42	%	56	%	74	%	99	%
1	12	23		22		23		28		E	
2	8	24		22		25		26		28	
3	22	22		25		25		25		29	
4	22	22		22		26		32		D-0	
5	17	29		20		29		24		27	
6	18	19		E		E		21		24	
7	22	23		25		24		D-0		25	
8	20	27		24		24		24		26	
9	17	20		25		26		25		25	
10	20	22		25		26		D-0		E	
Mean	17.8	23.1		23.3		25.3		25.6		26.2	
C.V%	26	12.9		8		6.8		12.6		6.8	
Var	21.511	8.988		3.5		3		10.553		3.238	
Std.Dev.	4.638	2.998		1.87		1.732		3.248		1.799	
Max	22	29		25		29		32		29	
Min	8	19		20		23		21		24	

**Concentration Response Relationships**





**Chronic *Pimephales promelas***

Client: San Antonio Water System Dos Rios WRC

Lab ID: 55087

Permit Number: TPDES WQ0010137033

Test Temperature (oC): 25 ± 1

Outfall Name: 001

Sample Type: Composite

Photo Period: 16 Hours Light  
8 Hours Dark

Receiving Water Name:

Test Start Time: 17:10

Test End Time: 10:45

Begin Date: 11/5/2013

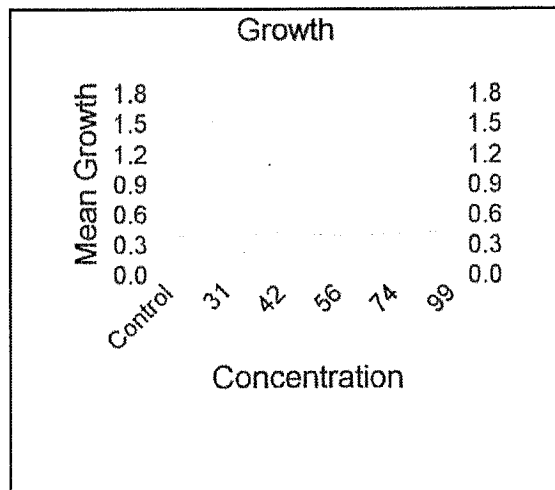
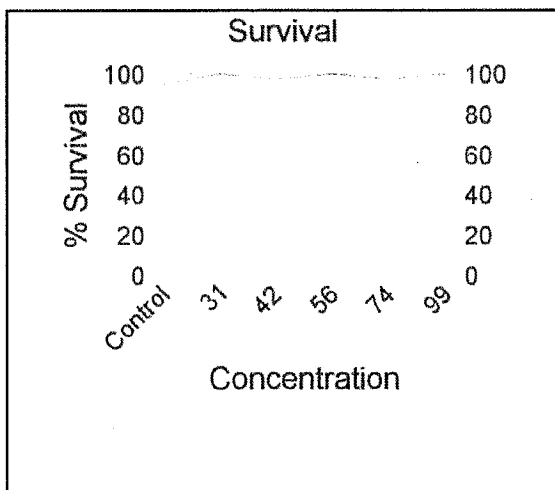
End Date: 11/12/2013

**SURVIVAL**

Effluent Concentration	Number Of Alive								Avg% Surv.
	11/5	11/6	11/7	11/8	11/9	11/10	11/11	11/12	
Control	A	8	7	7	7	7	7	7	95.0%
	B	8	8	8	7	7	7	7	
	C	8	8	8	8	8	8	8	
	D	8	8	8	8	8	8	8	
	E	8	8	8	8	8	8	8	
31	A	8	8	8	8	8	8	8	100.0%
	B	8	8	8	8	8	8	8	
	C	8	8	8	8	8	8	8	
	D	8	8	8	8	8	8	8	
	E	8	8	8	8	8	8	8	
42	A	8	8	8	8	8	8	8	97.5%
	B	8	8	8	8	8	7	7	
	C	8	8	8	8	8	8	8	
	D	8	8	8	8	8	8	8	
	E	8	8	8	8	8	8	8	
56	A	8	8	8	8	8	8	8	100.0%
	B	8	8	8	8	8	8	8	
	C	8	8	8	8	8	8	8	
	D	8	8	8	8	8	8	8	
	E	8	8	8	8	8	8	8	

Effluent Concentration	Number Of Alive								Avg% Surv.
	11/5	11/6	11/7	11/8	11/9	11/10	11/11	11/12	
74	A	8	8	8	8	8	8	8	97.5%
	B	8	8	8	8	8	8	8	
	C	8	8	8	8	8	8	8	
	D	8	8	8	8	8	8	8	
	E	8	8	8	7	7	7	7	
99	A	8	8	8	8	8	8	8	100.0%
	B	8	8	8	8	8	8	8	
	C	8	8	8	8	8	8	8	
	D	8	8	8	8	8	8	8	
	E	8	8	8	8	8	8	8	
	A								
	B								
	C								
	D								
	E								

**Concentration Response Relationships**



Chronic *Pimephales promelas*

Client: San Antonio Water System Dos Rios WRC

Lab ID: 55087

Permit Number: WQ0010137033

Begin Date: 11/5/2013

Sample Type: Composite

Outfall Name: 001

Receiving Water Name:

End Date: 11/12/2013

Synthetic

	ON	SN	Wt.	Avg.	SN Avg.
A	8	7	3.045	0.381	0.435
B	8	7	3.054	0.382	0.436
C	8	8	3.278	0.410	0.410
D	8	8	3.092	0.387	0.387
E	8	8	2.829	0.354	0.354

Mean	C.V. %
0.382	5.2

SN Mean	SN C.V. %
0.404	8.6

	ON	Wt.	Avg.
A	8	2.350	0.294
B	8	2.844	0.356
C	8	3.428	0.429
D	8	3.387	0.423
E	8	3.240	0.405

Mean	C.V. %
0.381	14.9

	ON	Wt.	Avg.
A	8	3.355	0.419
B	8	2.821	0.353
C	8	3.374	0.422
D	8	3.590	0.449
E	8	3.475	0.434

Mean	C.V. %
0.415	8.9

	ON	Wt.	Avg.
A	8	2.835	0.354
B	8	3.183	0.398
C	8	3.006	0.376
D	8	2.745	0.343
E	8	3.587	0.448

Mean	C.V. %
0.384	10.9

74

	ON	Wt.	Avg.
A	8	3.522	0.440
B	8	3.412	0.427
C	8	3.392	0.424
D	8	3.128	0.391
E	8	2.569	0.321

Mean	C.V. %
0.401	12.0

99

	ON	Wt.	Avg.
A	8	2.824	0.353
B	8	3.182	0.398
C	8	3.489	0.436
D	8	3.699	0.462
E	8	4.092	0.512

Mean	C.V. %
0.432	14.0

	ON	Wt.	Avg.
A			
B			
C			
D			
E			

Mean	C.V. %

	ON	Wt.	Avg.
A			
B			
C			
D			
E			

Mean	C.V. %

Note: ON stands for original number per replicate, while SN refers to the number surviving after test completion.

## APPENDIX A

### STATISTICS SUMMARY

Both the lethal and sub-lethal endpoints were statistically calculated according to their respective EPA guidelines. The Chronic Freshwater organisms were calculated according to EPA-821-R-02-013, October 2002 Fourth Edition. The Chronic Marine and Estuarine organisms were calculated according to EPA-821-R-02-014, October 2002 Third Edition. The Acute Freshwater and Marine organisms were calculated according to EPA-821-R-02-012, October 2002 Fifth Edition. Listed below are the basic principles of these guidelines. If you would like a copy of the raw statistical calculations for your test then please contact us.

The chronic and acute *Pimephales promelas* and *Menidia beryllina* survival data is analyzed using Shipiro Wilks Test and Bartlett's Test. If the data passes both tests then the data is run through ANOVA and Dunnetts (parametric). If the data fails Shipiro Wilks Test or Bartlett's Test then Steels Many One Test (non-parametric) is used. The chronic *Pimephales promelas* and *Menidia beryllina* growth data is analyzed using Shipiro Wilks Test and Bartlett's Test. If the data passes one of these tests then the data is run through ANOVA and Dunnetts. If the data fails Shipiro Wilks Test and Bartlett's Test then Steels Many One Test is used.

The chronic *Mysidopsis bahia* survival data is analyzed using Chi-square test and Bartlett's Test. If the data passes both tests then the data is run through ANOVA and Dunnetts. If the data fails Chi-square test or Bartlett's Test then Steels Many One Test is used. *Mysidopsis bahia* growth data is analyzed using Chi-square test and Bartlett's Test. If the data passes one of these tests then the data is run through ANOVA and Dunnetts. If the data fails Chi-square test and Bartlett's Test then Steels Many One Test is used.

The acute *Mysidopsis bahia* survival data is analyzed using Shipiro Wilks Test and Bartlett's Test. If the data passes both tests then the data is run through ANOVA and Dunnetts. If the data fails Shipiro Wilks Test or Bartlett's Test then Steels Many One Test is used.

The chronic *Ceriodaphnia dubia* survival data are analyzed using the Fisher's Exact Test. The chronic *Ceriodaphnia dubia* reproduction and are analyzed using the Chi-square test and Bartlett Test. If the data passes one of these tests then the data is run through ANOVA and Dunnetts. If the data fails Chi-square test and Bartlett's Test then Steels Many One Test is used.

The acute *Daphnia pulex* and *Ceriodaphnia dubia* survival data is analyzed using Shipiro Wilks Test and Bartlett's Test. If the data passes both tests then the data is run through ANOVA and Dunnetts. If the data fails Shipiro Wilks Test or Bartlett's Test then Steels Many One Test is used.

55087

### Bio-Aquatic Testing, Inc.

2501 Mayes Road, Suite 100  
Carrollton, TX 75006  
Tel: 972-242-7750  
Fax: 972-242-7749

#### FRESH WATER TEST SETUP FORM

Client: San Antonio Water System

Permit WQ0010137033

Facility: Dos Rios WRC

Lab Number 55087

Outfall Name: 001

Number of samples 3

Dilution Water: Synthetic Lab

Receiving Water Name: \_\_\_\_\_

Dechlorinate Sample: No

Sx #	Rcvd Date	Rcvd Time	Sampling Dates		Sampling Times	
			Begin Date	End Date	Start	End
1	11/05/13	09:00	11/03/13	11/04/13	09:00	07:00
2	11/07/13	17:50	11/05/13	11/06/13	09:00	07:00
3	11/09/13	14:00	11/07/13	11/08/13	06:00	07:00

<i>Type of Test(s)</i>	
<u>Ceriodaphnia dubia</u>	<u>Chronic</u>
<u>Pimephales promelas</u>	<u>Chronic</u>

Start Sx # 1 Date: 11/5/2013  
 Renew Sx # 1 Date: 11/6/2013  
 Renew Sx # 1 Date: 11/7/2013  
 Renew Sx # 2 Date: 11/8/2013  
 Renew Sx # 2 Date: 11/9/2013  
 Renew Sx # 3 Date: 11/10/2013  
 Renew Sx # 3 Date: 11/11/2013

Controls: Synthetic

pH Match: \_\_\_\_\_

Hardness Match: \_\_\_\_\_

Test Start Date: 11/5/2013      Test End Date: 11/12/2013

Ceriodaphnia dubia Test Set Up: 10 Reps & 1 Organisms per Rep

Pimephales Test Set Up: 5 Reps & 8 Organism per Rep

Concentrations: 31 42 56 74 99 %      LF % 99

Test Chemistry on these dilutions: 31 42 56 74 99

Samples received by:

<input checked="" type="radio"/> Greyhound	<input type="radio"/> UPS Next Day	<input type="radio"/> Delta Dash	<input type="radio"/> Delta
<input type="radio"/> Pony Express	<input type="radio"/> Client Delivered	<input type="radio"/> Southwest Airlines	<input type="radio"/> DHL
<input type="radio"/> Federal Express	<input type="radio"/> American Airlines	<input type="radio"/> Bio Pick Up	

Other: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# BIO-AQUATIC TESTING, INC.

Hardness, Alkalinity, Residual Chlorine, Specific Conductivity, and Salinity Analysis Data

**Client:** San Antonio Water System

**Lab ID:** 55087

**Facility:** Dos Rios WRC

**Outfall:** 001

**Dilution Water(s):** Synthetic Lab

**Test Date:** November 5, 2013

\*\* 100 %

Effluent Sample #	Received		** Residual Cl <sub>2</sub>	DeChlor (ml/L)	** Ammonia mg/L	Analyst Initials	Initial Salinity	Adjusted Salinity	Temp. Received
	Date	Time							
1	11/5/13	9:00	<0.10	N/A	<0.25	DF	N/A	N/A	3.4
2	11/7/13	17:50	<0.10	N/A	<0.25	JM	N/A	N/A	5
3	11/9/13	14:00	<0.10	N/A	<0.25	JR	N/A	N/A	3.8

**Chlorine Analysis Method:** Hanna Ion Specific Meter #193711      **Dechlorination Reagent:** 0.025 N Sodium Thiosulfate

Sample #	Received		Hardness (EDTA) As mg/L CaCO <sub>3</sub>		ALKALINITY TO END POINT pH 4.50 +/- 0.05 as mg/L CaCO <sub>3</sub>		Analyst Initials
	Date	Time	CON	100	CON	100	
1	11/5/13	9:00	140.0	300.0	60.0	189.0	PW
2	11/7/13	17:50	140.0	326.0	60.0	195.0	PW/CH
3	11/9/13	14:00	140.0	330.0	60.0	222.0	PW/CH

Date	Sample #	Values are at Highest Dilution		Values are at 100% Dilution		Analyst	Other	
		Specific Conductivity as umhos/cm	Salinity (ppt)	Residual Chlorine as mg Cl <sub>2</sub> /L	1 ml 0.02N Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> /L			
11/5	Lab H2O	438	0.3			AMC		
11/6	Lab H2O	448	0.3			DS		
11/7	Lab H2O	445	0.3			DP		
11/8	Lab H2O	437	0.3			JL		
11/9	Lab H2O	435	0.3			DS		
11/10	Lab H2O	445	0.3			JL		
11/11	Lab H2O	453	0.3			AMC		
11/5	OUTFALL*	1	922	0.5	<0.10	N/A	AMC	
11/6	OUTFALL*	1	946	0.5	<0.10	N/A	DS	
11/7	OUTFALL*	1	934	0.5	<0.10	N/A	DP	
11/8	OUTFALL*	2	1113	0.6	<0.10	N/A	JL	
11/9	OUTFALL*	2	1080	0.6	<0.10	N/A	DS	
11/10	OUTFALL*	3	1086	0.6	<0.10	N/A	JL	
11/11	OUTFALL*	3	1045	0.6	<0.10	N/A	AMC	

\*Conductivity is taken on the highest remaining effluent concentration used for test renewal, not necessarily 100%



# BIO-AQUATIC TESTING, INC.

pH, Dissolved Oxygen

Chronic

Ceriodaphnia dubia

Client: San Antonio Water System

Lab ID: 55087

Facility: Dos Rios WRC

Dilution Water(s): Synthetic Lab

Outfall: 001

Test Begin Date: November 5, 2013

NR indicates that the test is non-renewal.

ANALYST	DATE	TIME	SX#	UNIT	Concentration							
					Control	31	42	56	74	99		
AMC	11/5	Start	1	pH	7.7	7.6	7.6	7.5	7.5	7.4		
		25 ± 1		DO (mg/L)	8.2	8.2	8.2	8.3	8.4	8.7		
DS	11/6	24 Hr	1	pH	7.8	7.8	7.8	7.7	7.8	7.8		
		25 ± 1		DO (mg/L)	8.2	8.1	8.1	8.1	8.0	7.9		
		Renew	1	pH	8.1	8.1	8.0	7.8	7.8	7.7		
				DO (mg/L)	8.3	8.2	8.1	8.0	8.2	8.3		
DP	11/7	48 Hr	1	pH	7.4	7.6	7.6	7.7	7.7	7.9		
		25 ± 1		DO (mg/L)	8.9	8.8	8.8	8.7	8.7	8.6		
		Renew	1	pH	8.0	8.0	7.9	7.7	7.7	7.6		
				DO (mg/L)	8.4	8.3	8.3	8.2	8.3	8.4		
JL	11/8	72 Hr	1	pH	7.6	7.5	7.5	7.6	7.6	7.8		
		25 ± 1		DO (mg/L)	7.6	7.5	7.5	7.6	7.5	7.5		
		Renew	2	pH	8.0	7.8	7.8	7.7	7.8	7.5		
				DO (mg/L)	8.0	8.1	8.1	8.1	8.1	8.2		
DS	11/9	96 Hr	2	pH	7.9	7.8	7.8	7.7	7.8	7.9		
		25 ± 1		DO (mg/L)	8.3	8.3	8.3	8.2	8.0	7.8		
		Renew	2	pH	8.0	8.0	7.9	7.8	7.8	7.7		
				DO (mg/L)	8.0	8.1	8.1	8.1	8.2	8.3		
JL	11/10	120 Hr	2	pH	7.8	7.8	7.8	7.8	7.9	8.0		
		25 ± 1		DO (mg/L)	8.1	8.0	7.8	7.6	7.6	7.6		
		Renew	3	pH	8.0	8.0	7.9	7.8	7.7	7.4		
				DO (mg/L)	8.3	8.2	8.2	8.1	8.3	8.5		
JL	11/11	144 Hr	3	pH	7.9	7.7	7.7	7.7	7.8	7.9		
		25 ± 1		DO (mg/L)	7.0	7.1	7.1	7.0	6.9	6.8		
		Renew	3	pH	7.9	7.9	7.8	7.6	7.5	7.4		
				DO (mg/L)	7.7	7.8	7.9	8.1	8.3	8.5		
AMC	11/12	168 Hr	3	pH	7.7	7.8	7.8	7.9	8.0	8.1		
		25 ± 1		DO (mg/L)	8.0	8.0	8.0	8.0	7.9	7.9		

# BIO-AQUATIC TESTING, INC.

pH, Dissolved Oxygen

Chronic

Pimephales promelas

Client: San Antonio Water System

Lab Number: 55087

Facility: Dos Rios WRC

Dilution Water(s): Synthetic Lab

Outfall: 001

Test Begin Date: November 5, 2013

NR indicates that the test is non-renewal.

ANALYST	DATE	TIME	SX#	UNIT	Concentration							
					Control	31	42	56	74	99		
AMC	11/5	Start	1	pH	7.7	7.6	7.6	7.5	7.5	7.4		
		25 ± 1		DO (mg/L)	8.2	8.2	8.2	8.3	8.4	8.7		
DS	11/6	24 Hr	1	pH	7.9	7.9	7.9	7.8	7.8	7.9		
		25 ± 1		DO (mg/L)	8.6	8.6	8.6	8.5	8.5	8.4		
		Renew	1	pH	8.1	8.1	8.0	7.8	7.8	7.7		
				DO (mg/L)	8.3	8.2	8.1	8.0	8.2	8.3		
DP	11/7	48 Hr	1	pH	7.9	7.9	7.8	7.7	7.8	7.9		
		25 ± 1		DO (mg/L)	8.9	8.6	8.6	8.5	8.4	8.3		
		Renew	1	pH	8.0	8.0	7.9	7.7	7.7	7.6		
				DO (mg/L)	8.4	8.3	8.3	8.2	8.3	8.4		
JL	11/8	72 Hr	1	pH	7.7	7.6	7.6	7.6	7.6	7.8		
		25 ± 1		DO (mg/L)	8.0	7.9	7.9	7.7	7.7	7.6		
		Renew	2	pH	8.0	7.8	7.8	7.7	7.8	7.5		
				DO (mg/L)	8.0	8.1	8.1	8.1	8.1	8.2		
DS	11/9	96 Hr	2	pH	7.8	7.8	7.8	7.7	7.6	7.6		
		25 ± 1		DO (mg/L)	8.5	8.3	8.3	8.2	8.0	7.7		
		Renew	2	pH	8.0	8.0	7.9	7.8	7.8	7.7		
				DO (mg/L)	8.0	8.1	8.1	8.1	8.2	8.3		
JL	11/10	120 Hr	2	pH	7.7	7.7	7.7	7.6	7.7	7.8		
		25 ± 1		DO (mg/L)	8.5	8.4	8.3	8.2	8.0	7.9		
		Renew	3	pH	8.0	8.0	7.9	7.8	7.7	7.4		
				DO (mg/L)	8.3	8.2	8.2	8.1	8.3	8.5		
JL	11/11	144 Hr	3	pH	7.5	7.5	7.5	7.6	7.7	7.8		
		25 ± 1		DO (mg/L)	8.5	8.0	7.8	7.6	7.4	7.5		
		Renew	3	pH	7.9	7.9	7.8	7.6	7.5	7.4		
				DO (mg/L)	7.7	7.8	7.9	8.1	8.3	8.5		
AMC	11/12	168 Hr	3	pH	7.6	7.7	7.7	7.8	7.8	7.9		
		25 ± 1		DO (mg/L)	8.1	8.1	8.2	8.2	8.2	8.1		

# Appendix B

*Ceriodaphnia dubia*

## BIO-AQUATIC TESTING, INC.

Carrollton, TX

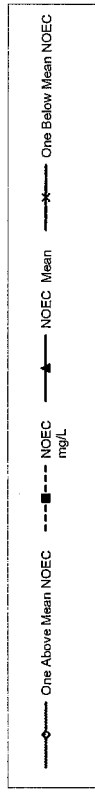
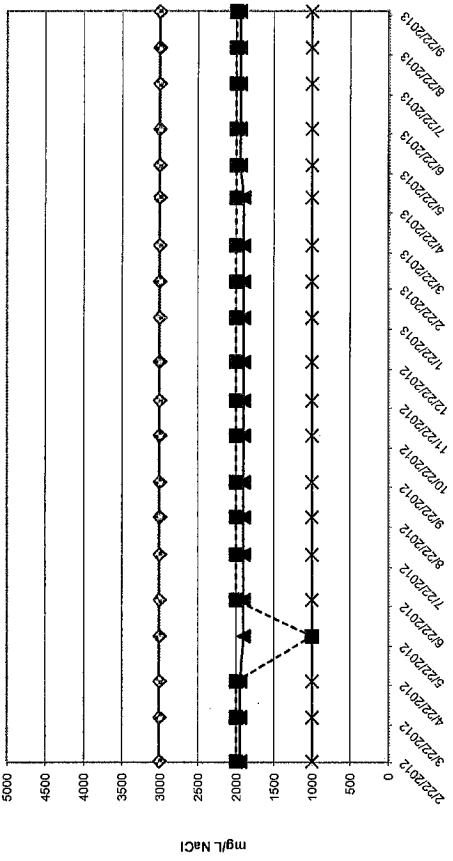
### REFERENCE TOXICANTS

Bio-Aquatic Testing conducts reference toxicant testing monthly for organisms cultured in-house. For studies requiring purchased organisms, reference toxicant testing is performed simultaneously. Reference toxicant testing validates data and measures organism consistency. Only reagent grade chemicals are used of the following choices: sodium laurel sulfate (SLS), copper sulfate, copper chloride, potassium chloride, and sodium chloride. Organism responses are tracked with control charts for each reference toxicant/organism combination. The data are examined for sensitivity trends and to determine if results are within EPA described limits.

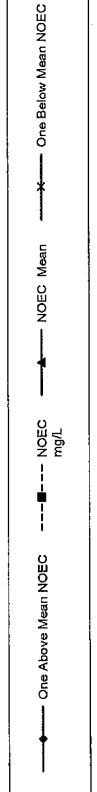
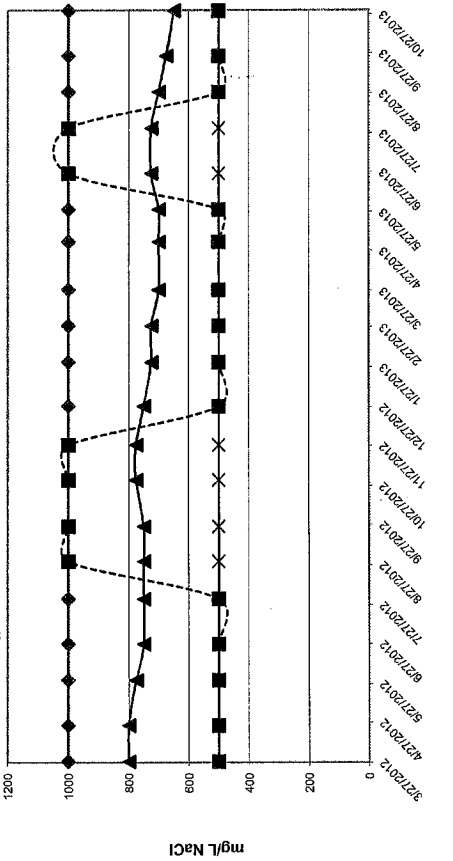
### CHRONIC REFERENCE TOXICANT TEST RESULTS

DILUTION WATER:	Standard Synthetic Freshwater
CHEMICAL:	Sodium Chloride
DURATION:	3-Brood Chronic
TEST NUMBER:	224
PROJECT NUMBER:	56238
START DATE:	10/29/2013
START TIME:	12:43
TOTAL NUMBER EXPOSED:	10 organisms per concentration
CONCENTRATIONS (mg/L):	CON 250 500 1000 2000 3000 4000
NUMBER DEAD PER CONCENTRATION:	0 0 1 0 1 10 10
TEST METHODS:	As listed in EPA-821-R-02-013
STATISTICAL METHODS:	SURVIVAL: Fisher's Exact Test
	REPRODUCTION: ANOVA - Dunnett's
NOEC FOR SURVIVAL:	2000 mg/L
LOEC FOR SURVIVAL:	3000 mg/L
NOEC FOR REPRODUCTION:	500 mg/L
LOEC FOR REPRODUCTION:	1000 mg/L
PMSD:	15.2

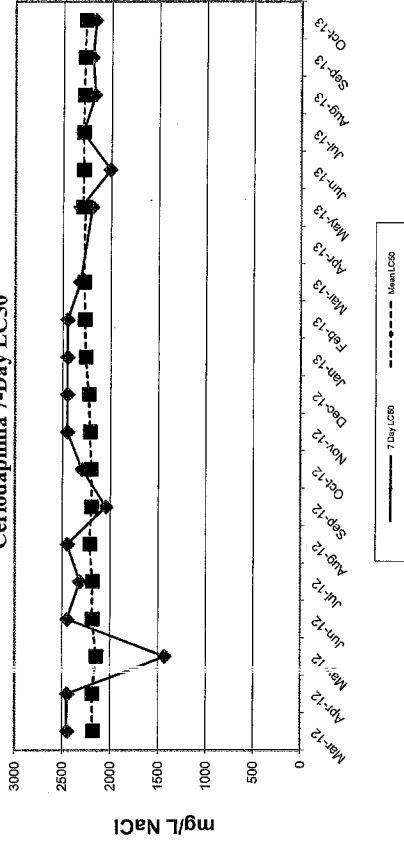
Ceriodaphnia Chronic Survival Control Chart



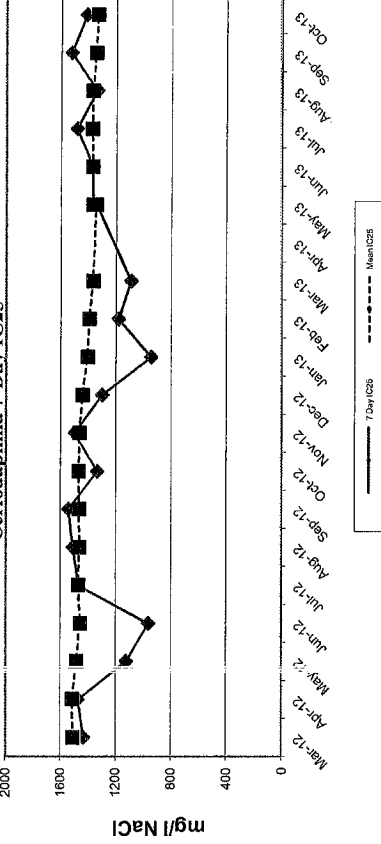
Ceriodaphnia Chronic Reproduction Control Chart



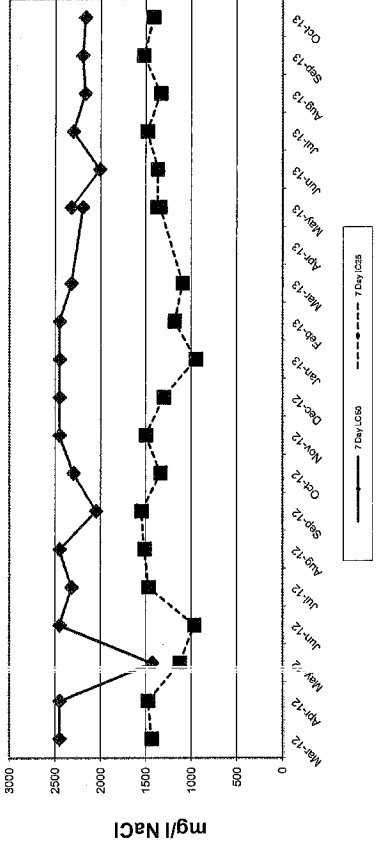
Ceriodaphnia 7-Day LC50



Ceriodaphnia 7-Day IC25



Ceriodaphnia 7-Day LC50 & IC25



# Appendix B

*Pimephales promelas*

## BIO-AQUATIC TESTING, INC.

Carrollton, TX

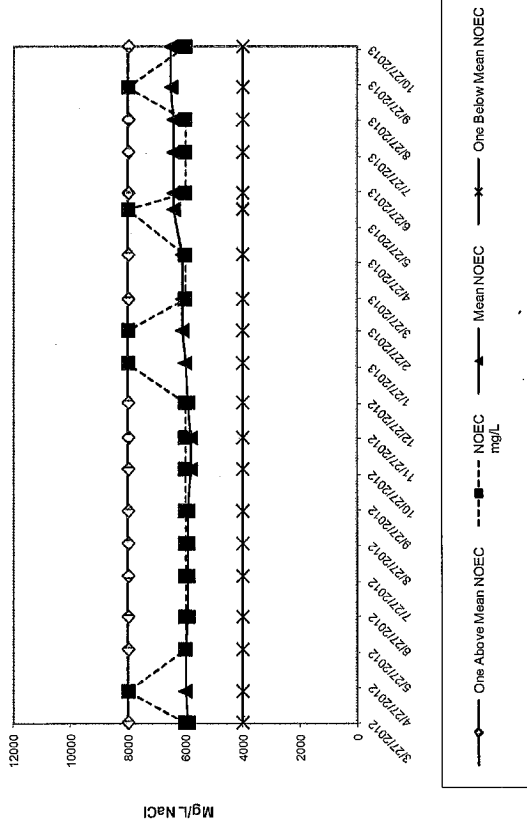
### REFERENCE TOXICANTS

Bio-Aquatic Testing conducts reference toxicant testing monthly for organisms cultured in-house. For studies requiring purchased organisms, reference toxicant testing is performed simultaneously. Reference toxicant testing validates data and measures organism consistency. Only reagent grade chemicals are used of the following choices: sodium laurel sulfate (SLS), copper sulfate, copper chloride, potassium chloride, and sodium chloride. Organism responses are tracked with control charts for each reference toxicant/organism combination. The data are examined for sensitivity trends and to determine if results are within EPA described limits.

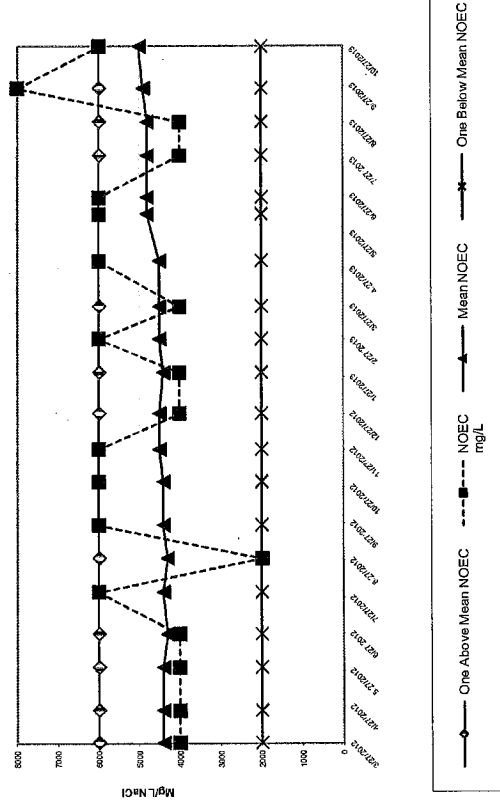
### CHRONIC REFERENCE TOXICANT TEST RESULTS

DILUTION WATER:	Standard Synthetic Freshwater
CHEMICAL:	Sodium Chloride
DURATION:	7 Days
TEST NUMBER:	264
PROJECT NUMBER:	56236
START DATE:	10/29/2013
START TIME:	15:40
TOTAL NUMBER EXPOSED:	40 organisms per concentration
CONCENTRATIONS (mg/L):	CON 2000 4000 6000 8000 10000 12000
NUMBER DEAD PER CONCENTRATION:	1 1 0 5 20 40 40
TEST METHODS:	As listed in EPA-821-R-02-013
STATISTICAL METHODS:	SURVIVAL: Steel's Many-One Rank Test GROWTH: ANOVA and Dunnett's Test
NOEC FOR SURVIVAL:	6000 mg/L
LOEC FOR SURVIVAL:	8000 mg/L
NOEC FOR GROWTH:	6000 mg/L
LOEC FOR GROWTH:	8000 mg/L
PMSD:	21.6

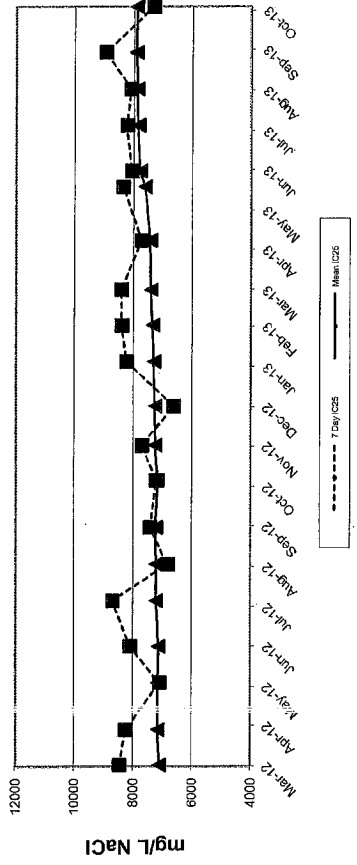
Fathead Chronic Survival Control Chart



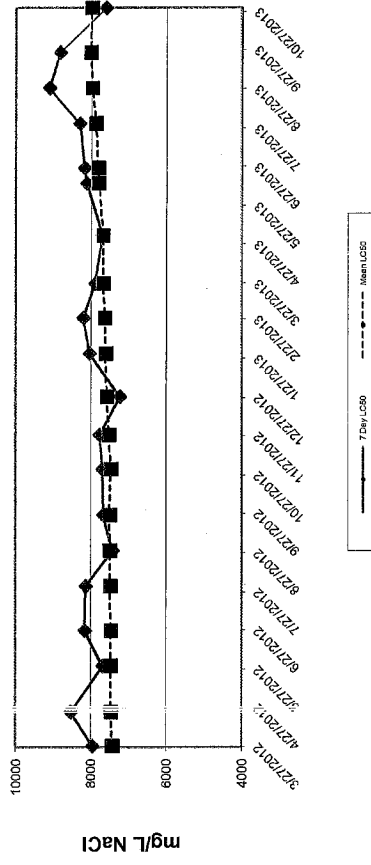
Fathead Chronic Growth Control Chart



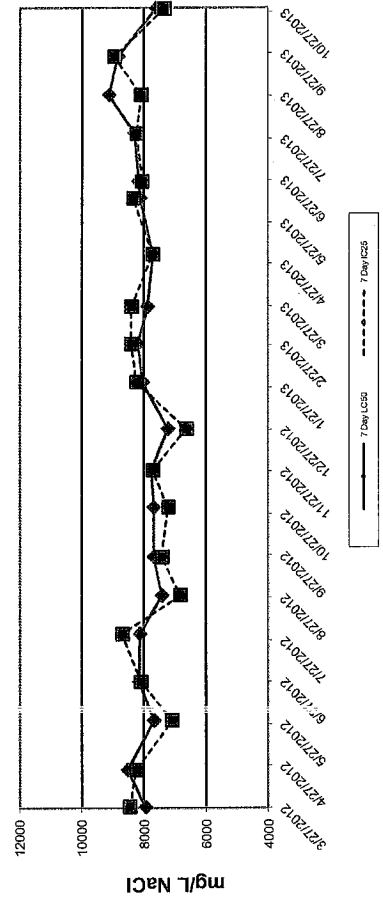
Fathead 7-Day IC25



Fathead 7-Day LC50



Fathead 7-Day LC50 & IC25



## APPENDIX C

### LITERATURE REFERENCES

- U.S.E.P.A., 2002. Short-Term Methods For Estimating The Chronic Toxicity Of Effluents And Receiving Water To Freshwater Organisms (Fifth Edition) U.S. Environmental Protection Agency, Office of Water, Washington D.C., EPA-821-R-02-012.
- U.S.E.P.A., 2002. Short-Term Methods For Estimating The Chronic Toxicity Of Effluents and Receiving Water To Marine And Estuarine Organisms (Third Edition) U.S. Environmental Protection Agency, Office of Water, Washington D.C., EPA-821-R-02-014.
- U.S.E.P.A., 2002. Short-Term Methods For Estimating The Chronic Toxicity Of Effluents And Receiving Water To Freshwater Organisms (Fourth Edition) U.S. Environmental Protection Agency, Office of Water, Washington D.C., EPA-821-R-02-013.
- U.S.E.P.A., 1991. Technical Support Document For Water Quality-Based Toxics Control, U.S. Environmental Protection Agency, EPA-505-2-90-001.
- Zarr, Jerrold, H., 1984. Biostatistical Analysis, (Second Edition). Prentice-Hall, Inc., Englewood Cliffs, N.J.

# **CHAIN-OF-CUSTODY SHEETS**

Appendix D





**BIO-AQUATIC TESTING, INC.**  
 2501 MAYES RD., STE. 100  
 CARROLLTON, TX 75006  
 PH: 972-242-7750 FAX: 972-242-7749

Client: San Antonio, City of  
 Facility: Dos Rios WWTP  
 Permit No: WQ0010137033  
 Outfall: 001  
 Client Contact: ANNA RAMOS  
 Client Phone: 210-233-3210

**A. REVIEW SCHEDULED TEST(S):**  
 Chronic Ceriodaphnia dubia  
 Chronic Pimephales promelas  
 To Ship the 1st Sample on: 10/21/2013  
 Concentration: 31 42 56 74 99  
 (For TX) Setup separate 24hr Acute Test? NO

**CHAIN OF CUSTODY**

Bio Only / No Sample Left  
 Lab Id: 55087  
 Sample No: 55087 -  
 P.O. No:  
 Check Sample No.: First, Second, or Third.

Please Review & Complete Sections A, B, C, & D.

**B.** Use area below to make changes, if the Scheduled Test(s) in "A" are incorrect:

Freshwater Species				Saltwater Species			
C. dubia (water flea)	D. pulex (water flea)	D. magna (water flea)	P. promelas (minnow)	Selensstrum (green algae)	M. beryllina (minnow)	Myxidopsis (shrimp)	
<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	<input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	

Notes: 4th Quarter Chronic Cerio/Fathead (BG)

Sample ID or Location: (Outfall No. or Name)	Sample Type: E = Effluent RS = Rec. Stream S = Sediment	Sample Date		Grab or Composite	Sampled By: (Sign and Print Name)	Number of Containers Shipped
		From	To			
1 Effluent	E	11-3-13	11-3-13	Grab	Ernest Delo	
2 Effluent	E	11-3-13	11-4-13	Grab	David Sullivan David Sullivan	
3 Effluent	E	11-4-13	11-4-13	Grab	Ernest Delo	

Relinquished By:	Date	Time	Received By:		Date	Time
			Signature	Signature		
Ernest Delo	11-4-13	0853	[Signature]	[Signature]	11/4/13	0853
			[Signature]	[Signature]	11-5-13	0900

**BAT sample personnel:** Yes No  
 Check for Ammonia: Yes No  
 Dichlorinate Sample: Yes No  
 Dilution Water: Receiving Stream Synthetic Lab

Date: 11-5-13 Time: 0910 By: [Signature]

Temperature: 34 (C) RH: [ ] Int. Salinity: ppt Adj. Salinity: ppt  
 Chlorine: 6.1 mg/l Ammonia: 0.025 mg/l Other:  
 pH: 7.3 DO: 9.9 mg/l Condition: Good



**BIO-AQUATIC TESTING, INC.**  
 2581 MAYES RD., STE. 100  
 CARROLLTON, TX 75006  
 PH: 972-242-7750 FAX: 972-242-7749

**Client:** San Antonio, City of  
**Facility:** Dos Rios WWTP  
**Permit No:** WQ0010137033  
**Outfall:** 001  
**Client Contact:** ANNA RAMOS  
**Client Phone:** 210-233-3210

**A. REVIEW SCHEDULED TEST(S):**  
 Chronic Ceriodaphnia dubia  
 Chronic Pinephales promelas

**Concentration:** 31 42 56 74 99  
 To Ship the 1st Sample on: 10/21/2013

(For TX) Setup separate 24hr Acute Test?  No

Sample ID or Location: (Outfall No. or Name)	Sample Type: E = Effluent RS = Rec. Stream S = Sediment	Sample Date		Grab or Composite	Sampled By: (Sign and Print Name)	Number Of Containers Shipped
		From	To			
1 Dos Rios WTRFL	E	11-5-13	11-6-13	C	Dungham, Darren Johnson	1
2						
3						

Relinquished By:	Date	Time	Received By:	Date	Time
R. Li	11-6-13	0825	CNOEDEN	11-6-13	0825
				11-7-13	1750

BAT sample personnel: <input checked="" type="radio"/> Yes <input type="radio"/> No	
Check for Ammonia: <input type="radio"/> Yes <input type="radio"/> No	Temperature: 5 (C) IR#: 002 Int. Salinity: ppt
Dechlorinate Sample: <input type="radio"/> Yes <input checked="" type="radio"/> No	Chlorine: 10.1 mg/l Ammonia: 6.25 mg/l Other: Condition: 60.5
Dilution Water: <input type="radio"/> Receiving Stream <input checked="" type="radio"/> Synthetic Lab	pH: 7.2 DO: 9.9 mg/l

**CHAIN OF CUSTODY**  No Sample Left **Lab Id:** 55087  
 Please Review & Complete Sections A, B, C, & D. **Sample No:** 55087 -  
**Check Sample No.:** First, Second, or Third. **P.O. No:**

**B. Use area below to make changes, if the Scheduled Test(s) in "A" are incorrect:**

Freshwater Species				Saltwater Species			
<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour
C. dubia (water flea)	D. pulex (water flea)	D. magna (water flea)	F. promelas (minnow)	Selenastrum (green algae)	M. beryllina (minnow)	Mysidopsis (shrimp)	

Notes: 4th Quarter Chronic Cerio/Fath read (BG)

**Bio-Aquatic Sample Login**



**BIO-AQUATIC TESTING, INC.**  
 2501 MAYES RD., STE. 100  
 CARROLLTON, TX 75006  
 PH: 972-242-7750 FAX: 972-242-7749

**Client:** San Antonio, City of  
**Facility:** Dos Rios WWTP  
**Permit No:** WQ0010137033  
**Outfall:** 001  
**Client Contact:** ANNA RAMOS  
**Client Phone:** 210-233-3210

**A. REVIEW SCHEDULED TEST(S):**  
 Chronic Ceriodaphnia dubia  
 Chronic Pimephales promelas  
 Concentration: 31 42 56 74 99  
 To Ship the 1st Sample on: 10/21/2013  
 (For TX) Setup separate 24hr Acute Test?  No

**CHAIN OF CUSTODY**  Bio-Only No Sample Left **Lab Id:** 55087  
 Please Review & Complete Sections A, B, C, & D. **Sample No:** 55087 -  
 Check Sample No.: First, Second, or Third. **P.O. No:**

**B. Use area below to make changes, if the Scheduled Test(s) in "A" are incorrect:**

Freshwater Species		Saltwater Species	
C. dubia (water flea)	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	D. magna (water flea)	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour
D. pulex (water flea)	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	P. promelas (minnow)	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour
Selastrium (green algae)	<input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	M. beryllina (minnow)	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour
Mysidopsis (shrimp)	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour		

Notes: 4th Quarter Chronic Cerio/Fed/acid (BG)

**C. Sample ID or Location: (Outfall No. or Name)**

Sample ID or Location (Outfall No. or Name)	Sample Type: E = Effluent RS = Rec. Stream S = Sediment	Sample Date		Grab or Composite	Sampled By: (Sign and Print Name)	Number of Containers Shipped
		From	To			
1 Effluent	E	11-7-13	11-7-13	Grab	Manuel Lopez Manuel Ruiz Ernest DelaB	
2 Effluent outfall	E	11-7-13	11-8-13	Grab	ADJ. B. Lopez GOSSEL B. Lopez	
3 Effluent	E	11-8-13	11-8-13	Grab	Manuel Lopez Manuel Ruiz Ernest DelaB	

**D. Relinquished By:**

Relinquished By:	Received By:	Date	Time
1 <i>[Signature]</i>	Chapelle	11-8-13	0828
2			
3	John Pineda	11-9-13	1400

**Bio-Aquatic Sample Login**

BAT sample personnel:  Yes  No  
 Check for Ammonia:  Yes  No  
 Dechlorinate Sample:  Yes  No  
 Dilution Water:  Receiving Stream  Synthetic Lab

Date: 11-9-13 Time: 1400 By: SRZ  
 Temperature: 3.8 (C) RH: 0.02 Int. Salinity: ppt Adj. Salinity: ppt  
 Chlorine: 6.1 mg/l Ammonia: 2.0 mg/l Other:  
 pH: 7.2 DO: 9.8 mg/l Condition: Good

# **REGULATORY AGENCY TABLES**

Appendix E

BIOMONITORING REPORT

*Ceriodaphnia dubia* SURVIVAL AND REPRODUCTION TEST

Permittee: San Antonio Water System - Dos Rios WRC

Permit No.: WQ0010137033

Outfall No.: 001

	Date/Time	Date/Time
Dates and times	FROM: <u>11/3/2013 @9:00</u>	TO: <u>11/4/2013@ 7:00</u>
Composites were collected:	FROM: <u>11/5/2013 @9:00</u>	TO: <u>11/6/2013@ 7:00</u>
	FROM: <u>11/7/2013 @6:00</u>	TO: <u>11/8/2013@ 7:00</u>

Test Initiation: Time: 13:08 Date: 11/5/2013

Dilution Water Used:  Receiving Water  Synthetic Dilution Water

NUMBER OF YOUNG PRODUCED PER ADULT AT TEST TERMINATION

REPLICATE	EFFLUENT CONCENTRATION (%)					
	0%	31 %	42 %	56 %	74 %	99 %
A	12	23	22	23	28	E
B	8	24	22	25	26	28
C	22	22	25	25	25	29
D	22	22	22	26	32	D- 0
E	17	29	20	29	24	27
F	18	19	E	E	21	24
G	22	23	25	24	D- 0	25
H	20	27	24	24	24	26
I	17	20	25	26	25	25
J	20	22	25	26	D- 0	E
MEAN	17.8	23.1	23.3	25.3	25.6	26.2
CV % <sup>1</sup>	26	12.9	8	6.8	12.6	6.8
PMSD	Acceptable Range 47 or Less					41.3 %

<sup>1</sup> Coefficient of Variation = (standard deviation/mean) x 100) Calculations are based on young of the surviving females. Males are designated (M), and dead females are designated (D) along with the number of neonates released prior to death. (E) anomalous value, spilled cup, or technician error.

Table 1 (Sheet 2 of 4 )  
 BIOMONITORING REPORT

*Ceriodaphnia dubia* SURVIVAL AND REPRODUCTION TEST

Permittee: San Antonio Water System - Dos Rios WRC  
 Permit No.: WQ0010137033  
 Outfall No.: 001

PERCENT SURVIVAL

Time of Reading	EFFLUENT CONCENTRATION (%)					
	0%	31 %	42 %	56 %	74 %	99 %
24 HOURS	100.0	100.0	100.0	100.0	100.0	100.0
48 HOURS	100.0	100.0	100.0	100.0	100.0	100.0
7-DAY	100.0	100.0	100.0	100.0	80.0	87.5

1. DUNNETT'S PROCEDURE OR STEEL'S MANY-ONE RANK TEST OR WILCOXON RANK SUM TEST  
 (with Bonferroni adjustment as appropriate for Sub-Lethality)

Is the mean number of young produced per adult significantly less ( $p=0.05$ ) than the number of young per adult in the control for the % effluent corresponding to significant non-lethal effects?

CRITICAL DILUTION ( 99 % ): \_\_\_\_\_ YES \_\_\_\_\_ X \_\_\_\_\_ NO

If you report NO, enter a '0' on the DMR form for Parameter **TWP3B**, other wise enter a '1'. This parameter is also referred to as the 7-DAY *Ceriodaphnia* Sub-Lethal Pass/Fail.

2. FISHER'S EXACT TEST (as appropriate for Lethality)

Is the mean survival at test end significantly less ( $p=0.05$ ) than the control's survival for the % effluent corresponding to lethality?

CRITICAL DILUTION ( 99 % ): \_\_\_\_\_ YES \_\_\_\_\_ X \_\_\_\_\_ NO

If you report NO, enter a '0' on the DMR form for Parameter **TLP3B**, other wise enter a '1'. This parameter is also referred to as the 7-DAY *Ceriodaphnia* Lethal Pass/Fail.

3. Enter the percent effluent corresponding to each NOEC/LOEC below:

a. NOEC Survival = \_\_\_\_\_ 99 \_\_\_\_\_ % Effluent (Parameter TOP3B)

b. LOEC Survival = \_\_\_\_\_ Q\* \_\_\_\_\_ % Effluent (Parameter TXP3B)

c. NOEC Reproduction = \_\_\_\_\_ 99\*\* \_\_\_\_\_ % Effluent (Parameter TPP3B)

d. LOEC Reproduction = \_\_\_\_\_ Q\*\* \_\_\_\_\_ % Effluent (Parameter TYP3B)

Q\* refers to a value that is not calculable

\*\*Replicate "6" of the 42% effluent concentration, replicate "6" of the 56% effluent concentration and replicate "1" of the 99% effluent concentration were all excluded from the statistical analysis as they were determined to be outliers.

Table 1 (Sheet 3 of 4 )  
BIOMONITORING REPORT

*Pimephales promelas* SURVIVAL AND GROWTH TEST

Permittee: San Antonio Water System - Dos Rios WRC  
Permit No.: WQ0010137033  
Outfall No.: 001

	Date/Time	Date/Time
Dates and times	FROM: <u>11/3/2013 @9:00</u>	TO: <u>11/4/2013@ 7:00</u>
Composites were collected:	FROM: <u>11/5/2013 @9:00</u>	TO: <u>11/6/2013@ 7:00</u>
	FROM: <u>11/7/2013 @6:00</u>	TO: <u>11/8/2013@ 7:00</u>

Test Initiation: Time: 17:10 Date: 11/5/2013  
Dilution Water Used:  Receiving Water  Synthetic Dilution Water

DATA TABLE FOR GROWTH OF *Pimephales promelas*

Effluent Concentration	Average Dry Weight in milligrams (mg) per replicate					Mean Dry Weight (mg)	CV % <sup>1</sup>
	A	B	C	D	E		
0%	0.381	0.382	0.410	0.387	0.354	0.382	5.22
31 %	0.294	0.356	0.429	0.423	0.405	0.381	14.89
42 %	0.419	0.353	0.422	0.449	0.434	0.415	8.90
56 %	0.354	0.398	0.376	0.343	0.448	0.384	10.86
74 %	0.440	0.427	0.424	0.391	0.321	0.401	11.97
99 %	0.353	0.398	0.436	0.462	0.512	0.432	14.02
PMSD	Acceptable Range 30 or Less					17.9 %	

<sup>1</sup> Coefficient of Variation = (standard deviation/mean) x 100)

?= cannot be calculated due to 100% mortality or lab exception

DATA TABLE FOR SURVIVAL OF *Pimephales promelas*

Effluent Concentration	Percent Survival per replicate					Average % Survival			CV % <sup>1</sup>
	A	B	C	D	E	24 Hours	48 Hours	7-Day	
0%	87.5	87.5	100	100	100	97.5	97.5	95	7.21
31 %	100	100	100	100	100	100	100	100	0.00
42 %	100	87.5	100	100	100	100	100	97.5	5.73
56 %	100	100	100	100	100	100	100	100	0.00
74 %	100	100	100	100	87.5	100	100	97.5	5.73
99 %	100	100	100	100	100	100	100	100	0.00

Table 1 (Sheet 4 of 4 )  
BIOMONITORING REPORT

*Pimephales promelas* SURVIVAL AND GROWTH TEST

Permittee: San Antonio Water System - Dos Rios WRC  
Permit No.: WQ0010137033  
Outfall No.: 001

1. DUNNETT'S PROCEDURE OR STEEL'S MANY-ONE RANK TEST OR WILCOXON RANK SUM TEST  
(with Bonferroni adjustment as appropriate for Sub-Lethality)

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

CRITICAL DILUTION ( 99 % ): \_\_\_\_\_ YES \_\_\_\_\_ X \_\_\_\_\_ NO

If you report NO, enter a '0' on the DMR form for Parameter **TWP6C**, other wise enter a '1'. This parameter is also referred to as the 7-DAY *Pimephales* Sub-Lethal Pass/Fail.

2. DUNNETT'S PROCEDURE OR STEEL'S MANY-ONE RANK TEST OR WILCOXON RANK SUM TEST  
(as appropriate for Lethality) Is the survival at 7 days significantly less ( $p=0.05$ ) than the control's survival for % effluent corresponding to lethality?

CRITICAL DILUTION ( 99 % ): \_\_\_\_\_ YES \_\_\_\_\_ X \_\_\_\_\_ NO

If you report NO, enter a '0' on the DMR form for Parameter **TLP6C**, other wise enter a '1'. This parameter is also referred to as the 7-DAY *Pimephales* Lethal Pass/Fail.

3. Enter the percent effluent corresponding to each NOEC/LOEC below:

For DMR Form:

- a. NOEC Survival = \_\_\_\_\_ 99 \_\_\_\_\_ % Effluent (Parameter TOP6C)  
b. LOEC Survival = \_\_\_\_\_ Q\* \_\_\_\_\_ % Effluent (Parameter TXP6C)  
c. NOEC Growth = \_\_\_\_\_ 99 \_\_\_\_\_ % Effluent (Parameter TPP6C)  
d. LOEC Growth = \_\_\_\_\_ Q\* \_\_\_\_\_ % Effluent (Parameter TYP6C)

Q\* refers to a value that is not calculable





### Report Revision Form

Report Revision Number 0 for Lab ID 55087 was revised on 12/2/2013.

The revision was issued for the following reason(s):

- Typo in the report document or tables
- Missing sheets or tables
- Hard data was not scanned in as required by the client
- Missing specially requested forms or data for the client

Other (Please Specify):

Client and facility names revised to reflect client's permit.

# OVERFLOW REPORT

PERIOD: November 2013

WATERSHED: LEON CREEK

TCEQ PERMIT # 10137-003

EPA PERMIT # 0052639

WO #	INSPT#	SR #	DATE	ADDRESS	GALLONS	CAUSE	ACTION	HRS	COMMENTS
	245009		11/28/2013	IH 10 W 19919	1,200	Debris	CLEANED MAIN	4.33	Area Cleaned and Disinfected,
	244762	306360	11/27/2013	CATALINA BAY DR 8600	41,000	Vandalism	CLEANED MAIN	13.00	Area Cleaned and Disinfected,
	243915	305283	11/18/2013	MAJESTIC DR 3803	6,227	Vandalism	CLEANED MAIN	0.85	Flushed Area with H2O
TOTAL EVENTS 3		TOTAL GALLONS: 48,427					TOTAL DURATION: 18.18		

**Thursday, December 12, 2013**

**SAN ANTONIO WATER SYSTEM  
INTEROFFICE MEMORANDUM**

**TO:** Parviz Chavol, Senior Director, Production & Treatment

**FROM:** Veronica J. Godley, Director, Environmental Laboratory Services *V. Godley*

**COPY:** Anna Polanco-Ramos, Manager Laboratory Service; Monica Shafer, Quality Assurance Coordinator, Laboratory Services; SAWS Treatment Managers

**DATE:** December 17, 2013

**SUBJECT:** Laboratory Qualifier Notification for BOD Analyses

---

This memorandum documents a number of qualifier incidents occurring in the month of November with the BOD and CBOD tests performed at the San Antonio Water System (SAWS) Laboratory. The BOD and CBOD data from the samples listed in the attached table were reported with "B" and/or "Q" qualifiers. Results that are flagged with a "B" were qualified in accordance with laboratory quality system requirements because the measured oxygen depletion for the blanks did not meet the method standard limit of  $\pm 0.20$  mg/L.

Results that are flagged with a "Q" were qualified in accordance with laboratory quality system requirements because the Glucose-Glutamic Acid Standard (GGA) controls did not meet the method specified limit of 167.5-228.5 mg/L. For the month of November, all qualifiers for each day are listed in the attached table.

As a result of the excessive issues all personnel who perform these tests were retrained in mandatory training sessions, were required to re-read the standard operating procedures for BOD and COD analysis and all activities were documented as such. In addition each analyst that is assigned to the station is supervised and observed by the acting team leader whose responsibility the test falls under.

The laboratory will continue to monitor these tests in accordance with the procedures set by our accreditation. Should you have any questions regarding the data, please contact Ms. Monica Shafer, SAWS Quality Assurance Coordinator at 210-233-3205 or at [Monica.Shafer@saws.org](mailto:Monica.Shafer@saws.org).

Laboratory Qualifier Notification

December 17, 2013

Page 2

Attachment

Sample Date	Avg. Blank (n=2)		Qualifier added				
	BOD (mg/L)	CBOD (mg/L)	Dos Rios Effluent BOD	Dos Rios Effluent CBOD	Leon Creek Effluent BOD	Leon Creek Effluent CBOD	Medio Creek Effluent CBOD
11/1/13	-0.39	-0.30	B	B	B	B	B
11/7/13	0.30	0.44	B	B and Q	B	B and Q	B and Q
11/8/13	-0.33	-0.28	B	B	B	B	B
11/9/13	-0.38	-0.39	B	B	B	B	B
11/10/13	-0.38	-0.39	B and Q	B	B and Q	B	B
11/11/13	-0.22	-0.29	B	None	B	None	None
11/12/13	-0.22	-0.20	B	None	B	None	None
11/14/13	-0.24	-0.15	B	None	B	None	None
11/15/13	-0.14	-0.16	None	Q	None	Q	Q
11/16/13	-0.43	-0.36	B	B	B	B	B
11/17/13	-0.43	-0.36	B	B	B	B	B
11/22/13	0.26	0.32	B	B	B	B	B
11/27/13	-0.21	-0.16	B	None	B	None	None
11/29/13	-0.01	0.02	Q	Q	Q	Q	Q
11/30/13	-0.03	0.10	Q	Q	Q	Q	Q

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

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

Form Approved  
OMB No. 2040-0004

NAME: SAN ANTONIO WATER SYSTEM

DISCHARGE MONITORING REPORT (DMR)

ADDRESS: 3495 VALLEY RD  
SAN ANTONIO, TX 78221

X0052639
PERMIT NUMBER

001-A
DISCHARGE NUMBER

DMR Mailing ZIP CODE: 78221  
MAJOR (SUBR 13)  
DOMESTIC FACILITY - 001  
External Outfall

FACILITY: LEON CREEK WATER RECYC. CTR.

LOCATION: 1104 MAURMAN ROAD  
SAN ANTONIO, TX 78224

ATTN: STEVEN CLOUSE, SENIOR VP

MONITORING PERIOD	
MM/DD/YYYY	MM/DD/YYYY
11/1/2013	11/30/2013

No Discharge

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Oxygen, dissolved (DO)	SAMPLE MEASUREMENT	*****	*****	*****	6.7	*****	*****		0	12/Day	Grab
00300 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	5 MO MIN	*****	*****	mg/L		Daily	GRAB
pH	SAMPLE MEASUREMENT	*****	*****	*****	6.5	*****	7.6		0	12/Day	Grab
00400 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	6 MINIMUM	*****	9 MAXIMUM	SU		Daily	GRAB
Solids, total suspended	SAMPLE MEASUREMENT	202	*****	*****	*****	1.08	1.70		0	Daily	Compos
00530 1 0 Effluent Gross	PERMIT REQUIREMENT	5755 DAILY AV	*****	lb/d	*****	15 DAILY AV	40 DAILY MX	mg/L		Daily	COMPOS
Nitrogen, ammonia total (as N)	SAMPLE MEASUREMENT	86	*****	*****	*****	0.47	2.97		0	Daily	Compos
00610 1 0 Effluent Gross	PERMIT REQUIREMENT	767 DAILY AV	*****	lb/d	*****	2 DAILY AV	7 DAILY MX	mg/L		Daily	COMPOS
Flow, in conduit or thru treatment plant	SAMPLE MEASUREMENT	22.18	32.11		*****	*****	*****	*****	0	Continuous	TotalZ
50050 1 0 Effluent Gross	PERMIT REQUIREMENT	Req. Mon. DAILY AV	Req. Mon. DAILY MX	MGD	*****	*****	*****	*****		Continuous	TOTALZ
Flow, in conduit or thru treatment plant	SAMPLE MEASUREMENT	*****	31944		*****	*****	*****	*****	0	Continuous	TotalZ
50050 P 0 See Comments	PERMIT REQUIREMENT	*****	63888 2HR PEAK	gal/min	*****	*****	*****	*****		Continuous	TOTALZ
Flow, in conduit or thru treatment plant	SAMPLE MEASUREMENT	32.62	*****		*****	*****	*****	*****	0	Continuous	TotalZ
50050 Y 0 Effluent Gross (Supplementary)	PERMIT REQUIREMENT	46 ANNL AVG	*****	MGD	*****	*****	*****	*****		Continuous	TOTALZ

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER  Steven Clouse Senior Vice President & COO  TYPED OR PRINTED	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the persons or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	TELEPHONE	DATE
		210-233-3774	12/13/2013
		AREA Code	NUMBER
			MM/DD/YYYY

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

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

NAME: SAN ANTONIO WATER SYSTEM

ADDRESS: 3495 VALLEY RD  
SAN ANTONIO, TX 78221

FACILITY: LEON CREEK WATER RECYC. CTR.

LOCATION: 1104 MAURMAN ROAD  
SAN ANTONIO, TX 78224

ATTN: STEVEN CLOUSE, SENIOR VP

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

Form Approved  
OMB No. 2040-0004

X0052639	001-A
PERMIT NUMBER	DISCHARGE NUMBER
MONITORING PERIOD	
MM/DD/YYYY	MM/DD/YYYY
11/1/2013	11/30/2013

DMR Mailing ZIP CODE: 78221  
MAJOR (SUBR 13)  
DOMESTIC FACILITY - 001  
External Outfall

No Discharge

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Chlorine, total residual	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	0.090		0	12/Day	Grab
50060 A 0 Disinfection, Process Complete	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	.1 INST MAX	mg/L		Daily	GRAB
Chlorine, total residual	SAMPLE MEASUREMENT	*****	*****	*****	1.1	*****	*****		0	12/Day	Grab
50060 B 0 Prior to Disinfection	PERMIT REQUIREMENT	*****	*****	*****	1 MO MIN	*****	*****	mg/L		Daily	GRAB
E. coli	SAMPLE MEASUREMENT	*****	*****	*****	*****	1.41	14.0		0	Daily	Grab
51040 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	*****	126 DAILY AV	394 DAILY MX	CFU/100m L		Five Per Week	GRAB
BOD, carbonaceous, 05 day, 20 C	SAMPLE MEASUREMENT	370	*****		*****	2.0	2.0		0	Daily	Compos
80082 1 0 Effluent Gross	PERMIT REQUIREMENT	2686 DAILY AV	*****	lb/d	*****	7 DAILY AV	17 DAILY MX	mg/L		Daily	COMPOS

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	TELEPHONE	DATE
Steven Clouse Senior Vice President & COO		210-233-3774	12/13/2013
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA Code

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

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

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

Form Approved  
OMB No. 2040-0004

NAME: SAN ANTONIO WATER SYSTEM  
ADDRESS: 3495 VALLEY RD  
SAN ANTONIO, TX 78221

DISCHARGE MONITORING REPORT (DMR)

TX0052639	002-A
PERMIT NUMBER	DISCHARGE NUMBER

DMR Mailing ZIP CODE: 78221  
MAJOR (SUBR 13)  
DOMESTIC FACILITY - 002  
External Outfall

FACILITY: LEON CREEK WATER RECYC. CTR.  
LOCATION: 1104 MAURMAN ROAD  
SAN ANTONIO, TX 78224  
ATTN: STEVEN CLOUSE, SENIOR VP

MONITORING PERIOD	
MM/DD/YYYY	MM/DD/YYYY
11/1/2013	11/30/2013

No Discharge

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Oxygen, dissolved (DO)	SAMPLE MEASUREMENT	*****	*****	*****	6.9	*****	*****		0	12/Day	Grab
00300 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	5 MO MIN	*****	*****	mg/L		Daily	GRAB
pH	SAMPLE MEASUREMENT	*****	*****	*****	6.5	*****	7.6		0	12/Day	Grab
00400 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	6 MINIMUM	*****	9 MAXIMUM	SU		Daily	GRAB
Solids, total suspended	SAMPLE MEASUREMENT	9.0	*****	*****	*****	1.12	1.70		0	Daily	Compos
00530 1 0 Effluent Gross	PERMIT REQUIREMENT	5755 DAILY AV	*****	lb/d	*****	15 DAILY AV	40 DAILY MX	mg/L		Daily	COMPOS
Nitrogen, ammonia total (as N)	SAMPLE MEASUREMENT	4.2	*****	*****	*****	0.66	2.97		0	Daily	Compos
00610 1 0 Effluent Gross	PERMIT REQUIREMENT	767 DAILY AV	*****	lb/d	*****	2 DAILY AV	7 DAILY MX	mg/L		Daily	COMPOS
Flow, in conduit or thru treatment plant	SAMPLE MEASUREMENT	1.04	2.96	*****	*****	*****	*****	*****	0	Continuous	TotalZ
50050 1 0 Effluent Gross	PERMIT REQUIREMENT	Req. Mon. DAILY AV	Req. Mon. DAILY MX	MGD	*****	*****	*****	*****		Continuous	TOTALZ
Flow, in conduit or thru treatment plant	SAMPLE MEASUREMENT	*****	5556	*****	*****	*****	*****	*****	0	Continuous	TotalZ
50050 P 0 See Comments	PERMIT REQUIREMENT	*****	6388 2HR PEAK	gal/min	*****	*****	*****	*****		Continuous	TOTALZ
Flow, in conduit or thru treatment plant	SAMPLE MEASUREMENT	1.71	*****	*****	*****	*****	*****	*****	0	Continuous	TotalZ
50050 Y 0 Effluent Gross (Supplementary)	PERMIT REQUIREMENT	46 ANNL AVG	*****	MGD	*****	*****	*****	*****		Continuous	TOTALZ

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	TELEPHONE	DATE
Steven Clouse Senior Vice President & COO		210-233-3774	12/13/2013
TYPED OR PRINTED		AREA Code	NUMBER

*Steven Clouse*  
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

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

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

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

Form Approved  
OMB No. 2040-0004

NAME: SAN ANTONIO WATER SYSTEM  
ADDRESS: 3495 VALLEY RD  
SAN ANTONIO, TX 78221

DISCHARGE MONITORING REPORT (DMR)

TX0052639	002-A
PERMIT NUMBER	DISCHARGE NUMBER
MONITORING PERIOD	
MM/DD/YYYY	MM/DD/YYYY
11/1/2013	11/30/2013

DMR Mailing ZIP CODE: 78221  
MAJOR (SUBR 13)  
DOMESTIC FACILITY - 002  
External Outfall

FACILITY: LEON CREEK WATER RECYC. CTR.  
LOCATION: 1104 MAURMAN ROAD  
SAN ANTONIO, TX 78224  
ATTN: STEVEN CLOUSE, SENIOR VP

No Discharge

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Chlorine, total residual 50060 A 0 Disinfection, Process Complete	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	0.090		0	12/Day	Grab
	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	.1 INST MAX	mg/L		Daily	GRAB
Chlorine, total residual 50060 B 0 Prior to Disinfection	SAMPLE MEASUREMENT	*****	*****	*****	1.1	*****	*****		0	12/Day	Grab
	PERMIT REQUIREMENT	*****	*****	*****	1 MO MIN	*****	*****	mg/L		Daily	GRAB
E. coli 51040 1 0 Effluent Gross	SAMPLE MEASUREMENT	*****	*****	*****	*****	1.05	2.00		0	Daily	Grab
	PERMIT REQUIREMENT	*****	*****	*****	*****	126 DAILY AV	394 DAILY MX	CFU/100m L		Five Per Week	GRAB
BOD, carbonaceous, 05 day, 20 C 80082 1 0 Effluent Gross	SAMPLE MEASUREMENT	17.3	*****	*****	*****	2.0	2.0		0	Daily	Compos
	PERMIT REQUIREMENT	2686 DAILY AV	*****	lb/d	*****	7 DAILY AV	17 DAILY MX	mg/L		Daily	COMPOS

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the persons or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	TELEPHONE	DATE
Steven Clouse Senior Vice President & COO		210-233-3774	12/13/2013
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA Code

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



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

NAME: SAN ANTONIO WATER SYSTEM  
 ADDRESS: 3495 VALLEY RD  
 SAN ANTONIO, TX 78221

FACILITY: LEON CREEK WATER RECYC. CTR.

LOCATION: 1104 MAURMAN ROAD  
 SAN ANTONIO, TX 78224

ATTN: STEVEN CLOUSE, SENIOR VP

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

Form Approved

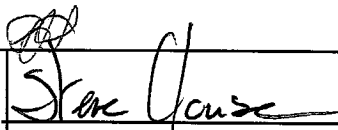
OMB No. 2040-0004

TX0052639	101-A
PERMIT NUMBER	DISCHARGE NUMBER
MONITORING PERIOD	
MM/DD/YYYY	MM/DD/YYYY
11/1/2013	11/30/2013

DMR Mailing ZIP CODE: 78221  
 MAJOR (SUBR 13)  
 COMBINED OUTFALLS 001 & 002  
 External Outfall

No Discharge

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Solids, total suspended 00530 J 0 Intermediate Treatment, Process	SAMPLE MEASUREMENT	206	*****		*****	*****	*****	*****	0	Daily	Compos
	PERMIT REQUIREMENT	5755 DAILY AV	*****	lb/d	*****	*****	*****	*****		Daily	COMPOS
Nitrogen, ammonia total (as N) 00610 J 0 Intermediate Treatment, Process	SAMPLE MEASUREMENT	88	*****		*****	*****	*****	*****	0	Daily	Compos
	PERMIT REQUIREMENT	767 DAILY AV	*****	lb/d	*****	*****	*****	*****		Daily	COMPOS
Flow, in conduit or thru treatment plant 50050 1 0 Effluent Gross	SAMPLE MEASUREMENT	22.67	32.43		*****	*****	*****	*****	0	Continuous	TotalZ
	PERMIT REQUIREMENT	Req. Mon. DAILY AV	Req. Mon. DAILY MX	MGD	*****	*****	*****	*****		Continuous	TOTALZ
Flow, in conduit or thru treatment plant 50050 P 0 See Comments	SAMPLE MEASUREMENT	*****	32986		*****	*****	*****	*****	0	Continuous	TotalZ
	PERMIT REQUIREMENT	*****	63889 2HR PEAK	gal/min	*****	*****	*****	*****		Continuous	TOTALZ
Flow, in conduit or thru treatment plant 50050 Y 0 Effluent Gross (Supplementary)	SAMPLE MEASUREMENT	33.56	*****		*****	*****	*****	*****	0	Continuous	TotalZ
	PERMIT REQUIREMENT	46 ANNL AVG	*****	MGD	*****	*****	*****	*****		Continuous	TOTALZ
BOD, carbonaceous, 05 day, 20 C 80082 J 0 Intermediate Treatment, Process	SAMPLE MEASUREMENT	378	*****		*****	*****	*****	*****	0	Daily	Compos
	PERMIT REQUIREMENT	2686 DAILY AV	*****	lb/d	*****	*****	*****	*****		Daily	COMPOS

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER  Steven Clouse Senior Vice President & COO  TYPED OR PRINTED	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE	DATE
			210-233-3774	12/13/2013
			AREA Code	NUMBER

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

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

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

Form Approved  
OMB No. 2040-0004

NAME: SAN ANTONIO WATER SYSTEM

DISCHARGE MONITORING REPORT (DMR)

ADDRESS: 3495 VALLEY RD  
SAN ANTONIO, TX 78221

X0065641
PERMIT NUMBER

001-A
DISCHARGE NUMBER

DMR Mailing ZIP CODE: 78221  
MINOR  
(SUBR 13)  
DOMESTIC FACILITY - 001  
External Outfall

FACILITY: MITCHELL LAKE

LOCATION: 1M S LOOP 410 E PLEASANTON RD  
SAN ANTONIO, TX 782982449

MONITORING PERIOD	
MM/DD/YYYY	MM/DD/YYYY
11/1/2013	11/30/2013

ATTN: STEVEN CLOUSE, SEN. VP & COO

No Discharge

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Oxygen, dissolved (DO)	SAMPLE MEASUREMENT	*****	*****	*****		*****	*****				
00300 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	4 MO MIN	*****	*****	mg/L		Daily	GRAB
BOD, 5-day, 20 deg. C	SAMPLE MEASUREMENT	*****	*****	*****	*****						
00310 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	*****	30 DAILY AV	100 SINGGRAB	mg/L		Daily	GRAB
pH	SAMPLE MEASUREMENT	*****	*****	*****		*****					
00400 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	6 MINIMUM	*****	9 MAXIMUM	SU		Daily	GRAB
Solids, total suspended	SAMPLE MEASUREMENT	*****	*****	*****	*****		*****				
00530 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	*****	90 DAILY AV	*****	mg/L		Daily	GRAB
Flow, in conduit or thru treatment plant	SAMPLE MEASUREMENT				*****	*****	*****	*****			
50050 1 0 Effluent Gross	PERMIT REQUIREMENT	Req. Mon. DAILY AV	Req. Mon. DAILY MX	MGD	*****	*****	*****	*****		Daily	INSTAN
E. coli	SAMPLE MEASUREMENT	*****	*****	*****	*****						
51040 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	*****	126 DAILY AV	394 SINGGRAB	CFU/100m L		Monthly	GRAB

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	TELEPHONE	DATE
Steven Clouse Senior Vice President & COO		210-233-3774	12/13/2013
TYPED OR PRINTED			AREA Code

*Steven Clouse*  
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

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

MONITORING SHALL OCCUR WHEN DISCHARGING.  
SAMPLES FOR BACTERIA MONITORING SHALL BE TAKEN AT THE INFLOW PIPE FROM THE LEON CREEK WRC.

No Discharge

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

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

Form Approved  
OMB No. 2040-0004

NAME: SAN ANTONIO WATER SYSTEM  
ADDRESS: 3495 VALLEY RD  
SAN ANTONIO, TX 78221

TX0052639  
PERMIT NUMBER

TX1-Q  
DISCHARGE NUMBER

DMR Mailing ZIP CODE: 78221  
MAJOR (SUBR 13)  
7-DAY CHRONIC FRESHWATER - 001  
External Outfall

FACILITY: LEON CREEK WATER RECYC. CTR.  
LOCATION: 1104 MAURMAN ROAD  
SAN ANTONIO, TX 78224  
ATTN: STEVEN CLOUSE, SENIOR VP

MONITORING PERIOD	
MM/DD/YYYY	MM/DD/YYYY
10/1/2013	12/31/2013

No Discharge

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Whole effluent toxicity - retest #1	SAMPLE MEASUREMENT	*****	*****	*****	N/A	N/A	*****				
22415 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Opt. Mon. 7 DA MIN	Opt. Mon. MO AV MN	*****	pass=0/fail=1		See Permit	COMP24
Whole effluent toxicity - retest #2	SAMPLE MEASUREMENT	*****	*****	*****	N/A	N/A	*****				
22416 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Opt. Mon. 7 DA MIN	Opt. Mon. MO AV MN	*****	pass=0/fail=1		See Permit	COMP24
Low Flow Pass/Fail Survival Test Static Renewal 7 Day Chronic Ceriodaphnia dubia TLP3B 1 0 Effluent Gross	SAMPLE MEASUREMENT	*****	*****	*****	00	00	*****		0	Quarterly	Comp24
	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	pass=0/fail=1		Quarterly	COMP24
Low Flow Pass/Fail Survival Test Static Renewal 7 Day Chronic Pimephales promelas TLP6C 1 0 Effluent Gross	SAMPLE MEASUREMENT	*****	*****	*****	00	00	*****		0	Quarterly	Comp24
	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	pass=0/fail=1		Quarterly	COMP24
NOEC Lethal Static Renewal 7 Day Chronic Ceriodaphnia dubia TOP3B 1 0 Effluent Gross	SAMPLE MEASUREMENT	*****	*****	*****	100	100	*****		0	Quarterly	Comp24
	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24
NOEC Lethal Static Renewal 7 Day Chronic Pimephales promelas TOP6C 1 0 Effluent Gross	SAMPLE MEASUREMENT	*****	*****	*****	100	100	*****		0	Quarterly	Comp24
	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24
NOEC Sub-Lethal Static Renewal 7 Day Chronic Ceriodaphnia dubia TPP3B 1 0 Effluent Gross	SAMPLE MEASUREMENT	*****	*****	*****	100	100	*****		0	Quarterly	Comp24
	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	TELEPHONE	DATE
Steven Clouse Senior Vice President & COO		210-233-3774	12/13/2013
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA Code

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

(PASS = 0, FAIL = 1) REPORT PASS AS "0" AND FAIL AS "1" IN CONCENTRATION ABOVE.

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

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

Form Approved  
OMB No. 2040-0004

NAME: SAN ANTONIO WATER SYSTEM  
ADDRESS: 3495 VALLEY RD  
SAN ANTONIO, TX 78221

DISCHARGE MONITORING REPORT (DMR)

TX0052639	TX1-Q
PERMIT NUMBER	DISCHARGE NUMBER

DMR Mailing ZIP CODE: 78221  
MAJOR (SUBR 13)  
7-DAY CHRONIC FRESHWATER - 001  
External Outfall

FACILITY: LEON CREEK WATER RECYC. CTR.  
LOCATION: 1104 MAURMAN ROAD  
SAN ANTONIO, TX 78224  
ATTN: STEVEN CLOUSE, SENIOR VP

MONITORING PERIOD	
MM/DD/YYYY	MM/DD/YYYY
10/1/2013	12/31/2013

No Discharge

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
NOEC Sub-Lethal Static Renewal 7 Day Chronic Pimephales promelas	SAMPLE MEASUREMENT	*****	*****	*****	100	100	*****		0	Quarterly	Comp24
TPP6C 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24
Pass/Fail Sub-Lethal Static Renewal 7 Day Chronic Ceriodaphnia dubia	SAMPLE MEASUREMENT	*****	*****	*****	0	0	*****		0	Quarterly	Comp24
TWP3B 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	pass=0/fail=1		Quarterly	COMP24
Pass/Fail Sub-Lethal Static Renewal 7 Day Chronic Pinephales promelas	SAMPLE MEASUREMENT	*****	*****	*****	0	0	*****		0	Quarterly	Comp24
TWP6C 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	pass=0/fail=1		Quarterly	COMP24
LOEC Lethal Survival Static Renewal 7 Day Chronic Ceriodaphnia dubia	SAMPLE MEASUREMENT	*****	*****	*****	Q	Q	*****		0	Quarterly	Comp24
TXP3B 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24
LOEC Lethal Survival Static Renewal 7 Day Chronic Pimephales promelas	SAMPLE MEASUREMENT	*****	*****	*****	Q	Q	*****		0	Quarterly	Comp24
TXP6C 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24
LOEC Sub-Lethal Reproduction Static Renewal 7 Day Chronic Ceriodaphnia dubia	SAMPLE MEASUREMENT	*****	*****	*****	Q	Q	*****		0	Quarterly	Comp24
TXP3B 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24
LOEC Sub-Lethal Reproduction Static Renewal 7 Day Chronic Pimephales promelas	SAMPLE MEASUREMENT	*****	*****	*****	Q	Q	*****		0	Quarterly	Comp24
TPP6C 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	TELEPHONE	DATE
Steven Clouse Senior Vice President & COO		210-233-3774	12/13/2013
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA Code

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

(PASS = 0, FAIL = 1) REPORT PASS AS "0" AND FAIL AS "1" IN CONCENTRATION ABOVE.

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

NAME: SAN ANTONIO WATER SYSTEM  
 ADDRESS: 3495 VALLEY RD  
 SAN ANTONIO, TX 78221

FACILITY: LEON CREEK WATER RECYC. CTR.  
 LOCATION: 1104 MAUERMAN ROAD  
 SAN ANTONIO, TX 78224  
 ATTN: STEVEN CLOUSE, SENIOR VP

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

Form Approved  
 OMB No. 2040-0004

TX0052639	TX2-Q
PERMIT NUMBER	DISCHARGE NUMBER
MONITORING PERIOD	
MM/DD/YYYY	MM/DD/YYYY
10/1/2013	12/31/2013

DMR Mailing ZIP CODE: 78221  
 MAJOR (SUBR 13)  
 7-DAY CHRONIC FRESHWATER - 002  
 External Outfall

No Discharge

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Whole effluent toxicity - retest #1	SAMPLE MEASUREMENT	*****	*****	*****			*****				
22415 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Opt. Mon. 7 DA MIN	Opt. Mon. MO AV MN	*****	pass=0/fail=1		See Permit	COMP24
Whole effluent toxicity - retest #2	SAMPLE MEASUREMENT	*****	*****	*****			*****				
22416 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Opt. Mon. 7 DA MIN	Opt. Mon. MO AV MN	*****	pass=0/fail=1		See Permit	COMP24
Low Flow Pass/Fail Survival Test Static Renewal 7 Day Chronic Ceriodaphnia dubia TOP3B 1 0 Effluent Gross	SAMPLE MEASUREMENT	*****	*****	*****			*****				
	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	pass=0/fail=1		Quarterly	COMP24
Low Flow Pass/Fail Survival Test Static Renewal 7 Day Chronic Pimephales promelas TOP6C 1 0 Effluent Gross	SAMPLE MEASUREMENT	*****	*****	*****			*****				
	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	pass=0/fail=1		Quarterly	COMP24
NOEC Lethal Static Renewal 7 Day Chronic Ceriodaphnia dubia TOP3B 1 0 Effluent Gross	SAMPLE MEASUREMENT	*****	*****	*****			*****				
	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24
NOEC Lethal Static Renewal 7 Day Chronic Pimephales promelas TOP6C 1 0 Effluent Gross	SAMPLE MEASUREMENT	*****	*****	*****			*****				
	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24
NOEC Sub-Lethal Static Renewal 7 Day Chronic Ceriodaphnia dubia TOP3B 1 0 Effluent Gross	SAMPLE MEASUREMENT	*****	*****	*****			*****				
	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER  Steven Clouse Senior Vice President & COO  TYPED OR PRINTED	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	TELEPHONE	DATE
		210-233-3774	12/13/2013
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT  <i>Steven Clouse</i>		AREA Code	NUMBER
			MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)  
 (PASS = 0, FAIL = 1) REPORT PASS AS "0" AND FAIL AS "1" IN CONCENTRATION ABOVE.

No Discharge

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

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

Form Approved  
OMB No. 2040-0004

NAME: SAN ANTONIO WATER SYSTEM  
ADDRESS: 3495 VALLEY RD  
SAN ANTONIO, TX 78221

DISCHARGE MONITORING REPORT (DMR)

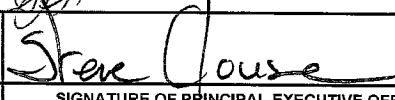
TX0052639	TX2-Q
PERMIT NUMBER	DISCHARGE NUMBER
MONITORING PERIOD	
MM/DD/YYYY	MM/DD/YYYY
10/1/2013	12/31/2013

DMR Mailing ZIP CODE: 78221  
MAJOR (SUBR 13)  
7-DAY CHRONIC FRESHWATER - 002  
External Outfall

FACILITY: LEON CREEK WATER RECYC. CTR.  
LOCATION: 1104 MAURMAN ROAD  
SAN ANTONIO, TX 78224  
ATTN: STEVEN CLOUSE, SENIOR VP

No Discharge

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
NOEC Sub-Lethal Static Renewal 7 Day Chronic Pimephales promelas	SAMPLE MEASUREMENT	*****	*****	*****			*****				
TPP6C 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24
Pass/Fail Sub-Lethal Static Renewal 7 Day Chronic Ceriodaphnia dubia	SAMPLE MEASUREMENT	*****	*****	*****			*****				
TWP3B 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	pass=0/fail=1		Quarterly	COMP24
Pass/Fail Sub-Lethal Static Renewal 7 Day Chronic Pinephales promelas	SAMPLE MEASUREMENT	*****	*****	*****			*****				
TWP6C 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	pass=0/fail=1		Quarterly	COMP24
LOEC Lethal Survival Static Renewal 7 Day Chronic Ceriodaphnia dubia	SAMPLE MEASUREMENT	*****	*****	*****			*****				
TXP3B 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24
LOEC Lethal Survival Static Renewal 7 Day Chronic Pimephales promelas	SAMPLE MEASUREMENT	*****	*****	*****			*****				
TXP6C 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24
LOEC Sub-Lethal Reproduction Static Renewal 7 Day Chronic Ceriodaphnia dubia	SAMPLE MEASUREMENT	*****	*****	*****			*****				
TXP3B 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24
LOEC Sub-Lethal Reproduction Static Renewal 7 Day Chronic Pimephales promelas	SAMPLE MEASUREMENT	*****	*****	*****			*****				
TPP6C 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 7 DA MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER  Steven Clouse Senior Vice President & COO  TYPED OR PRINTED	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE	DATE	
			210-233-3774	12/13/2013	
			AREA Code	NUMBER	MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)  
(PASS = 0, FAIL = 1) REPORT PASS AS "0" AND FAIL AS "1" IN CONCENTRATION ABOVE.

No Discharge

# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

P.O. BOX 13087 • AUSTIN, TEXAS 78711-3087  
MONTHLY EFFLUENT REPORT



PAGE 1

SAN ANTONIO WATER SYSTEM  
3495 VALLEY RD  
SAN ANTONIO TX 78221-5238



40B	WQ0010137-003	02	13	11	12645
SYS	PERMIT NUMBER	SET	YEAR	MO.	EID

THIS REPORT TO BE USED FOR COMBINED MON 189 for 001/002/800/900

**SEE BACK FOR INSTRUCTIONS AND DEFINITIONS.**

PLEASE RETAIN A PHOTOCOPY FOR YOUR RECORDS.

**TCEQ COPY**

PARAMETER	EFFLUENT CONDITION		NO. EX.	FREQUENCY OF ANALYSIS		SAMPLE TYPE	
	REPORTED	VALUE		UNITS			
500507124 FLOW	REPORTED	24.23	0	02		11	
DLY AVG	PERMITTED			02	CONT	11	CONT
500507128 FLOW	REPORTED	38.83	0	02		11	
ANN AVG	PERMITTED			02	CONT	11	CONT
NUMBER OF OPERATOR CERTIFICATE	REPORTED	WW0036067	0	01		NA	
	PERMITTED			01	01	NA	NA
EXPIRATION OF OPERATOR CERTIFICATE	REPORTED	140122	0	01		NA	
	PERMITTED			01	01	NA	NA
CLASS OF OPERATOR CERTIFICATE	REPORTED	A	0	01		NA	
	PERMITTED			01	01	NA	NA
	REPORTED						
	PERMITTED						
	REPORTED						
	PERMITTED						
	REPORTED						
	PERMITTED						
	REPORTED						
	PERMITTED						
	REPORTED						
	PERMITTED						

COMMENTS AND EXPLANATIONS *(Reference all attachments here)*

I CERTIFY THAT I AM FAMILIAR WITH THE INFORMATION CONTAINED IN THIS REPORT AND THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF SUCH INFORMATION IS TRUE AND COMPLETE AND ACCURATE.			NAME	SIGNATURE	DATE
			Sharon Surra Manager Prod & Treat Ops		13   12   10
TELEPHONE NUMBER			PLANT OPERATOR	PLANT OPERATOR	YEAR MO. DAY
2   1   0	2   3   3	3   7   7   4	Steve Clouse Senior Vice President & COO		11   3   11   3
AREA CODE	NUMBER		EXECUTIVE OFFICER	EXECUTIVE OFFICER	YEAR MO. DAY

# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

P.O. BOX 13087 • AUSTIN, TEXAS 78711-3087  
MONTHLY EFFLUENT REPORT



SAN ANTONIO WATER SYSTEM  
3495 VALLEY RD  
SAN ANTONIO TX 78221-5238



40B	WQ0010137-003	02	13	11	12547
SYS	PERMIT NUMBER	SET	YEAR	MO.	EID

THIS REPORT TO BE USED FOR RECLAIMED WATER TYPE I 800

**SEE BACK FOR INSTRUCTIONS AND DEFINITIONS.**

PLEASE RETAIN A PHOTOCOPY FOR YOUR RECORDS.

**TCEQ COPY**

PARAMETER	EFFLUENT CONDITION			NO. EX.	FREQUENCY OF ANALYSIS	SAMPLE TYPE	
	REPORTED	VALUE	UNITS				
000085342 TRANSFER DAYS/MON	REPORTED	30	DAY	0	01		01
	PERMITTED				01	NA	01 NA
316164024 E-COLI	REPORTED	1.0	#/100 ML	0	08	1/Day	03
DLY AVG	PERMITTED	20.000			11	2/WEEK	03 GRABPKLOAD
316164030 E-COLI	REPORTED	1.0	#/100 ML	0	08	1/Day	03
IND GRAB	PERMITTED	75.000			11	2/WEEK	03 GRABPKLOAD
500507124 FLOW	REPORTED	1.57	MGD	0	02		11
DLY AVG	PERMITTED				02	CONT	11 CONT
500507128 FLOW	REPORTED	5.27	MGD	0	02		11
ANN AVG	PERMITTED				02	CONT	11 CONT
800821024 BOD CARB	REPORTED	2.0	MG/L	0	08	1/Day	10 12-prt-com
DLY AVG	PERMITTED	5.000			11	2/WEEK	03 GRABPKLOAD
820786624 TURBIDITY	REPORTED	0.66	NTU	0	08	1/Day	10 12-prt-com
30DAY AV	PERMITTED	3.000			11	2/WEEK	03 GRABPKLOAD
NUMBER OF OPERATOR CERTIFICATE	REPORTED	WW0036067	NUMBER	0	01		NA
	PERMITTED				01	01	NA NA
EXPIRATION OF OPERATOR CERTIFICATE	REPORTED	140122	DATE	0	01		NA
	PERMITTED				01	01	NA NA
CLASS OF OPERATOR CERTIFICATE	REPORTED	A	LETTER	0	01		NA
	PERMITTED				01	01	NA NA
	REPORTED						
	PERMITTED						

**COMMENTS AND EXPLANATIONS** *(Reference all attachments here)*

E-Coli substituted for Fecal Coliform

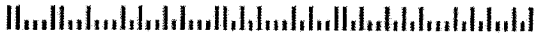
I CERTIFY THAT I AM FAMILIAR WITH THE INFORMATION CONTAINED IN THIS REPORT AND THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF SUCH INFORMATION IS TRUE AND COMPLETE AND ACCURATE.

	NAME	SIGNATURE	DATE
	Sharon Surra Manager Prod & Treat Ops		13   12   10
TELEPHONE NUMBER	PLANT OPERATOR	PLANT OPERATOR	YEAR MO. DAY
2   1   0	Steve Clouse Senior Vice President & COO		13   12   13
AREA CODE	EXECUTIVE OFFICER	EXECUTIVE OFFICER	YEAR MO. DAY
2   3   3			
3   7   7   4			



# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

P.O. BOX 13087 • AUSTIN, TEXAS 78711-3087  
MONTHLY EFFLUENT REPORT



SAN ANTONIO WATER SYSTEM  
3495 VALLEY RD  
SAN ANTONIO TX 78221-5238



40B	WQ0010137-003	02	13	11	12548
SYS	PERMIT NUMBER	SET	YEAR	MO.	EID

THIS REPORT TO BE USED FOR RECLAIMED WATER TYPE II 900

SEE BACK FOR INSTRUCTIONS AND DEFINITIONS.  
PLEASE RETAIN A PHOTOCOPY FOR YOUR RECORDS.

TCEQ COPY

PARAMETER	EFFLUENT CONDITION		NO. EX.	FREQUENCY OF ANALYSIS		SAMPLE TYPE	
	REPORTED	PERMITTED		VALUE	UNITS		
000085342 TRANSFER DAYS/MON	REPORTED	PERMITTED	0	01		01	
					NA	01	NA
316164024 FEC. COLI DLY AVG	REPORTED	PERMITTED					
				14	1/WEEK	03	GRABPKLOAD
316164030 FEC. COLI IND GRAB	REPORTED	PERMITTED					
				14	1/WEEK	03	GRABPKLOAD
500507124 FLOW DLY AVG	REPORTED	PERMITTED					
				02	CONT	11	CONT
500507128 FLOW ANN AVG	REPORTED	PERMITTED					
				02	CONT	11	CONT
800821024 BOD CARB DLY AVG	REPORTED	PERMITTED					
				14	1/WEEK	03	GRABPKLOAD
NUMBER OF OPERATOR CERTIFICATE	REPORTED	PERMITTED	WW0036067	0	01		NA
					01	01	NA NA
EXPIRATION OF OPERATOR CERTIFICATE	REPORTED	PERMITTED	140122	0	01		NA
					01	01	NA NA
CLASS OF OPERATOR CERTIFICATE	REPORTED	PERMITTED	A	0	01		NA
					01	01	NA NA
	REPORTED	PERMITTED					
	REPORTED	PERMITTED					

COMMENTS AND EXPLANATIONS *(Reference all attachments here)*

I CERTIFY THAT I AM FAMILIAR WITH THE INFORMATION CONTAINED IN THIS REPORT AND THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF SUCH INFORMATION IS TRUE AND COMPLETE AND ACCURATE.	NAME	SIGNATURE	DATE
	Sharon Surra Manager Prod & Treat Ops		13   12   10
TELEPHONE NUMBER	PLANT OPERATOR	PLANT OPERATOR	YEAR MO. DAY
2   1   0   2   3   3   3   7   7   4	Steve Clouse Senior Vice President & COO		13   12   13
AREA CODE	EXECUTIVE OFFICER	EXECUTIVE OFFICER	YEAR MO. DAY



**Bio-Aquatic Testing, Inc.**



TCEQ TNI Accredited

**San Antonio Water System  
Leon Creek WRC  
OUTFALL 001**

**Chronic Biomonitoring Report**

**55086**

*Ceriodaphnia dubia*  
*Pimephales promelas*

**November 05, 2013**

Approved by: *Chris Robason*  
*Chris Robason, President*

*Bio-Aquatic Testing, Inc. ♦ 2501 Mayes Rd. Ste. 100 ♦ Carrollton, Texas ♦ 75006*

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**Unless otherwise noted in the body of the report, all data reported in this document are in compliance with current TNI standards and apply only to the samples referenced within. This report document may not be edited or reproduced in part or in full by any other entity, unless Bio-Aquatic Testing, Inc. issues written approval.**

**\*HAND-WRITTEN RAW DATA TABLES ARE AVAILABLE UPON REQUEST**

**BIO-AQUATIC TESTING, INC.**

2501 Mayes Road, Suite 100

Carrollton, Texas 75006

Tel: (972) 242-7750

Fax: (972) 242-7749

TOXICITY TEST REPORT - Chronic

---

Client: San Antonio Water System  
Facility: Leon Creek WRC  
Permit No. WQ0010137003

Sample: 001  
Laboratory Number: 55086  
Date: November 05, 2013

*Ceriodaphnia dubia* **passed** survival and reproduction testing requirements. *Pimephales promelas* **passed** survival and growth testing requirements.

---

**SAMPLE COLLECTION:** Composite effluent samples from San Antonio Water System, Leon Creek WRC, were received on November 05, 2013, November 09, 2013, and November 09, 2013. Effluent samples were collected from Outfall 001 by facility personnel.

The effluent samples were analyzed for total residual chlorine using the Hanna Ion Specific Meter #193711 and contained <0.10 mg/L, <0.10 mg/L, and <0.10 mg/L, respectively. Effluent and laboratory dilution water pH, temperature, and dissolved oxygen data were collected daily.

**TEST PROCEDURES:**  
*Ceriodaphnia dubia*

**EPA METHOD:** 1002

The seven-day (three brood) Chronic *Ceriodaphnia dubia* survival and reproduction test was initiated at 11:47 hours on November 05, 2013. Five effluent concentrations of 32%, 42%, 56%, 75% and 100% were prepared using synthetic water as dilution water. The test was set up with 30mL plastic cups containing 15mL of test solution or control dilution water. Each effluent concentration or control dilution water included ten replicate cups with one organism in each cup. The control was conducted concurrently with the test. Test organisms were less than 24-hour old laboratory cultured neonates. Neonates were introduced into the test solutions using a blocking design. The test was renewed daily with newly prepared solutions. Food consisting of a half-milliliter suspension of the green algae, *Selenastrum capricornutum*, and YTC was added to the test solutions each day. The test proceeded for seven days or until 60% of the females in the control had three broods. Data on survival and number of young produced per female were collected daily. The test ended at 15:50 hours on November 12, 2013. Survival and reproduction data were statistically ( $p=0.05$ ) analyzed according to EPA procedures to determine the Lowest Observable Effect Concentration (LOEC) and the No Observable Effect Concentration (NOEC).

## SURVIVAL:

### *Ceriodaphnia dubia*

Fisher's Exact test on *Ceriodaphnia dubia* survival test data demonstrated no statistically significant differences between the control and any of the effluent concentrations tested.

**LOEC: Not Calculable (Q)**

**NOEC: 100% Effluent**

## REPRODUCTION:

### *Ceriodaphnia dubia*

The *Ceriodaphnia dubia* reproduction data were normally distributed at the alpha level of 0.01 (13.277) using the Chi-square test for normality. Reproduction data were shown to be homogeneous using Bartlett's test at the alpha level of 0.01 (15.09) without data transformations. Using ANOVA and Dunnett's or Steel's Many- One Rank Test or Wilcoxon Rank Sum Test (with Bonferroni adjustment as appropriate for Sub-Lethality) *Ceriodaphnia dubia* reproduction data demonstrated no statistically significant differences between the control and any of the effluent concentrations tested. Replicate "10" of the 56% effluent concentration was excluded from the statistical analysis as it was determined to be an outlier.

**LOEC: Not Calculable (Q)**

**NOEC: 100% Effluent**

## TEST PROCEDURES:

### *Pimephales promelas*

#### EPA METHOD: 1000

The seven-day Chronic *Pimephales promelas* survival and growth test was initiated at 17:30 hours on November 05, 2013. Five effluent concentrations of 32%, 42%, 56%, 75% and 100% were prepared using synthetic water as dilution water. The test was set up with 450mL plastic cups containing 250mL of test solution as test chambers. Each concentration consisted of five replicate chambers containing eight organisms each, giving a total of 40 (forty) per treatment. The control test was conducted concurrently with the test. Test organisms were laboratory-cultured *Pimephales promelas* larvae less than 24-hours old. The number of surviving larvae and water quality parameters in the old test solutions were recorded after each 24-hour period. The test was renewed daily with fresh solutions. Surviving larvae in each test chamber were fed freshly hatched brine shrimp two times per day. The test proceeded for seven days.

At the end of the test, all organisms were sacrificed, dried, and weighed. Data on surviving organisms and water quality were collected. The test ended at 11:02 hours on November 12, 2013. Survival and growth (weight) were statistically ( $p=0.05$ ) analyzed according to EPA procedures to determine the Lowest Observable Effect Concentration (LOEC) and the No Observable Effect Concentration (NOEC).

**SURVIVAL:**

*Pimephales promelas*

The non-parametric Steel's Many-One Rank test performed on *Pimephales promelas* survival data demonstrated no statistically significant differences between the control and any of the effluent concentrations tested.

**LOEC: Not Calculable (Q)**

**NOEC: 100% Effluent**

**GROWTH:**

*Pimephales promelas*

The *Pimephales promelas* growth data were normally distributed at the alpha level of 0.01 (0.900) using Shapiro Wilk's test for normality. Growth data were shown to be homogeneous using Bartlett's test at the alpha level of 0.01 (15.09) without data transformations. ANOVA and Dunnett's test on *Pimephales promelas* growth data demonstrated no statistically significant differences between the control and any of the effluent concentrations tested.

**LOEC: Not Calculable (Q)**

**NOEC: 100% Effluent**

# BIO-AQUATIC TESTING, INC.

## TOXICITY TEST

### Chronic *Ceriodaphnia dubia*

Client: San Antonio Water System Leon Creek WRC

Lab ID: 55086

Permit Number: TPDES WQ0010137003

Test Temperature (oC): 25 ± 1

Sample Type: Composite

Photo Period: 16 hours light, 8 hours dark

Outfall Name: 001

Dilution Water: synthetic

Receiving Water Name:

Begin Date: 11/5/2013

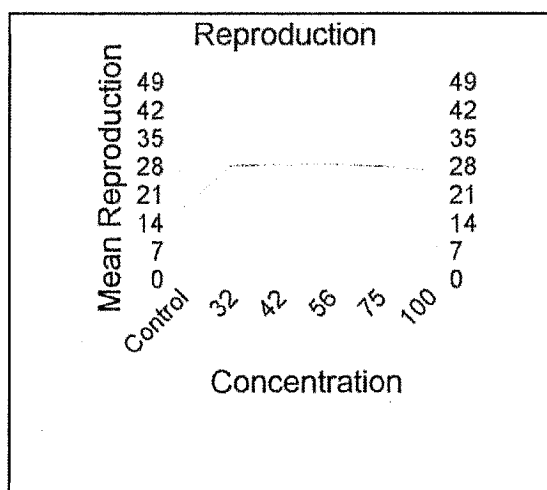
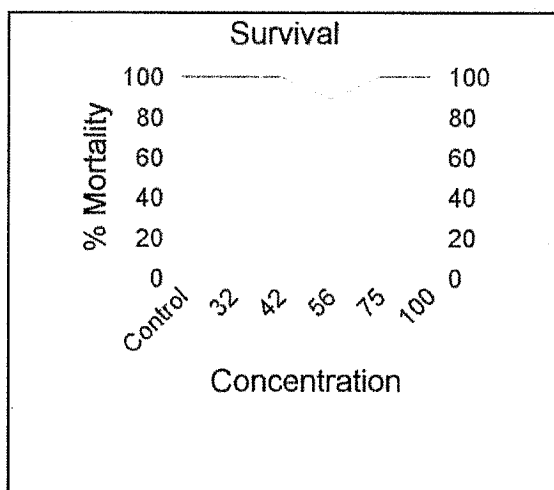
End Date: 11/12/2013

Test Start Time: 11:47 Test End Time: 15:50

### SURVIVAL AND REPRODUCTION TABLE

FEMALE #	Control	32 %	42 %	56 %	75 %	100 %
1	6	22	26	25	23	21
2	20	28	29	29	21	E
3	21	28	26	30	30	31
4	19	30	32	29	25	33
5	18	28	31	26	28	28
6	13	28	28	30	31	14
7	26	30	26	30	31	33
8	24	36	35	30	35	31
9	7	27	26	D-4	31	29
10	21	24	25	E	25	23
Mean	17.5	28.1	28.4	28.6	28	27
C.V%	38.5	13.2	11.6	6.9	15.6	23.7
Var	45.611	13.877	10.933	3.982	19.111	41.25
Std.Dev.	6.753	3.725	3.306	1.995	4.371	6.422
Max	26	36	35	30	35	33
Min	6	22	25	25	21	14

### Concentration Response Relationships



# BIO-AQUATIC TESTING, INC.

Control

## Survival and Reproduction

32

Date	1	2	3	4	5	6	7	8	9	10
11/6	A	A	A	A	A	A	A	A	A	A
11/7	A	A	A	A	A	A	A	A	A	A
11/8	A	A	A	A	A	A	A	A	A	A
11/9	6	6	6	5	6	5	6	6	5	6
11/10	A	6	6	6	3	A	10	8	A	6
11/11	A	A	A	A	A	A	A	A	A	A
	6	12	12	11	9	5	16	14	5	12
11/12	A	8	9	8	9	8	10	10	2	9
	6	20	21	19	18	13	26	24	7	21
11/13										

**Mean:** 17.50      **CV%** 38.50  
**Var.** 45.61      **Max** 26  
**Std.Dev.** 6.75      **Min** 6

Date	1	2	3	4	5	6	7	8	9	10
11/6	A	A	A	A	A	A	A	A	A	A
11/7	A	A	A	A	A	A	A	A	A	A
11/8	A	A	A	A	A	A	A	A	A	A
11/9	3	5	7	6	5	4	5	5	5	6
11/10	10	9	7	9	A	A	10	A	A	7
11/11	9	A	A	A	10	12	A	14	10	A
	22	14	14	15	15	16	15	19	15	13
11/12	A	14	14	15	13	12	15	17	12	11
	22	28	28	30	28	28	30	36	27	24
11/13										

**Mean:** 28.10      **CV%** 13.20  
**Var.** 13.88      **Max** 36  
**Std.Dev.** 3.73      **Min** 22

E= spilled cup

42

56

Date	1	2	3	4	5	6	7	8	9	10
11/6	A	A	A	A	A	A	A	A	A	A
11/7	A	A	A	A	A	A	A	A	A	A
11/8	A	A	A	A	A	A	A	A	A	A
11/9	5	4	5	5	6	5	6	7	6	4
11/10	9	10	8	A	A	A	9	A	A	9
11/11	A	A	A	13	13	9	A	12	5	A
	14	14	13	18	19	14	15	19	11	13
11/12	12	15	13	14	12	14	11	16	15	12
	26	29	26	32	31	28	26	35	26	25
11/13										

**Mean:** 28.40      **CV%** 11.60  
**Var.** 10.93      **Max** 35  
**Std.Dev.** 3.31      **Min** 25

Date	1	2	3	4	5	6	7	8	9	10
11/6	A	A	A	A	A	A	A	A	A	A
11/7	A	A	A	A	A	A	A	A	A	A
11/8	A	A	A	A	A	A	A	A	A	A
11/9	5	5	6	6	4	4	5	5	D4	4
11/10	8	10	11	8	9	A	11	A	D	8
11/11	12	A	A	A	A	10	A	11	D	7
	25	15	17	14	13	14	16	16	4	19
11/12	A	14	13	15	13	16	14	14	D	E
	25	29	30	29	26	30	30	30	4	
11/13										

**Mean:** 28.60      **CV%** 6.90  
**Var.** 3.98      **Max** 30  
**Std.Dev.** 2.00      **Min** 25

75

100

Date	1	2	3	4	5	6	7	8	9	10
11/6	A	A	A	A	A	A	A	A	A	A
11/7	A	A	A	A	A	A	A	A	A	A
11/8	A	A	A	A	A	A	A	A	A	A
11/9	6	A	6	5	5	4	5	6	5	6
11/10	9	8	10	6	10	A	10	A	A	11
11/11	8	13	A	A	A	12	A	13	12	8
	23	21	16	11	15	16	15	19	17	25
11/12	A	A	14	14	13	15	16	16	14	A
	23	21	30	25	28	31	31	35	31	25
11/13										

**Mean:** 28.00      **CV%** 15.60  
**Var.** 19.11      **Max** 35  
**Std.Dev.** 4.37      **Min** 21

Date	1	2	3	4	5	6	7	8	9	10
11/6	A	A	A	A	A	A	A	A	A	A
11/7	A	A	A	A	A	A	A	A	A	A
11/8	A	E	A	A	A	A	A	A	A	A
11/9	4	E	6	7	6	6	5	5	4	5
11/10	6	E	9	10	6	8	13	9	A	6
11/11	11	E	A	A	A	A	A	A	11	A
	21		15	17	12	14	18	14	15	11
11/12	A	E	16	16	16	A	15	17	14	12
	21		31	33	28	14	33	31	29	23
11/13										

**Mean:** 27.00      **CV%** 23.70  
**Var.** 41.25      **Max** 33  
**Std.Dev.** 6.42      **Min** 14



**Chronic *Pimephales promelas***

Client: San Antonio Water System Leon Creek WRC

Lab ID: 55086

Permit Number: TPDES WQ0010137003

Test Temperature (oC): 25 ± 1

Outfall Name: 001

Sample Type: Composite

Photo Period: 16 Hours Light  
8 Hours Dark

Receiving Water Name:

Test Start Time: 17:30

Test End Time: 11:02

Begin Date: 11/5/2013

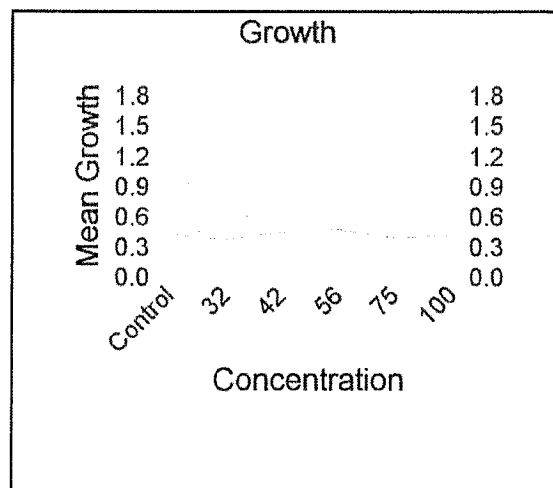
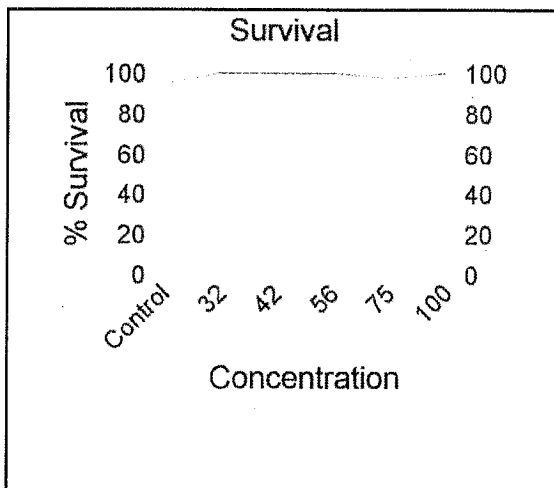
End Date: 11/12/2013

**SURVIVAL**

Effluent Concentration	Number Of Alive								Avg% Surv.	
	11/5	11/6	11/7	11/8	11/9	11/10	11/11	11/12		
Control	A	8	8	8	8	7	7	7	7	95.0%
	B	8	8	8	8	8	8	8	8	
	C	8	8	8	7	7	7	7	7	
	D	8	8	8	8	8	8	8	8	
	E	8	8	8	8	8	8	8	8	
32	A	8	8	8	8	8	8	8	8	100.0%
	B	8	8	8	8	8	8	8	8	
	C	8	8	8	8	8	8	8	8	
	D	8	8	8	8	8	8	8	8	
	E	8	8	8	8	8	8	8	8	
42	A	8	8	8	8	8	8	8	8	100.0%
	B	8	8	8	8	8	8	8	8	
	C	8	8	8	8	8	8	8	8	
	D	8	8	8	8	8	8	8	8	
	E	8	8	8	8	8	8	8	8	
56	A	8	8	8	8	8	8	8	8	100.0%
	B	8	8	8	8	8	8	8	8	
	C	8	8	8	8	8	8	8	8	
	D	8	8	8	8	8	8	8	8	
	E	8	8	8	8	8	8	8	8	

Effluent Concentration	Number Of Alive								Avg% Surv.
	11/5	11/6	11/7	11/8	11/9	11/10	11/11	11/12	
75	A	8	8	8	8	8	8	8	97.5%
	B	8	8	8	8	8	8	8	
	C	8	8	8	8	8	8	8	
	D	8	8	8	8	8	8	8	
	E	8	8	8	8	8	8	7	
100	A	8	8	8	8	8	8	8	100.0%
	B	8	8	8	8	8	8	8	
	C	8	8	8	8	8	8	8	
	D	8	8	8	8	8	8	8	
	E	8	8	8	8	8	8	8	
	A								
	B								
	C								
	D								
	E								

**Concentration Response Relationships**



Chronic *Pimephales promelas*

Client: San Antonio Water System Leon Creek WRC

Lab ID: 55086

Permit Number: WQ0010137003

Begin Date: 11/5/2013

Sample Type: Composite

Outfall Name: 001

Receiving Water Name:

End Date: 11/12/2013

Synthetic

	ON	SN	Wt.	Avg.	SN Avg.
A	8	7	2.821	0.353	0.403
B	8	8	4.036	0.505	0.505
C	8	7	3.332	0.417	0.476
D	8	8	3.332	0.417	0.417
E	8	8	3.249	0.406	0.406

Mean	C.V. %
0.419	13.0

SN Mean	SN C.V. %
0.441	10.5

32

	ON	Wt.	Avg.
A	8	3.546	0.443
B	8	2.522	0.315
C	8	2.824	0.353
D	8	3.006	0.376
E	8	2.912	0.364

Mean	C.V. %
0.370	12.6

42

	ON	Wt.	Avg.
A	8	3.356	0.420
B	8	2.988	0.374
C	8	3.883	0.485
D	8	4.106	0.513
E	8	3.263	0.408

Mean	C.V. %
0.440	13.1

56

	ON	Wt.	Avg.
A	8	3.345	0.418
B	8	3.582	0.448
C	8	4.064	0.508
D	8	3.286	0.411
E	8	4.573	0.572

Mean	C.V. %
0.471	14.4

75

	ON	Wt.	Avg.
A	8	3.559	0.445
B	8	3.190	0.399
C	8	3.653	0.457
D	8	2.748	0.344
E	8	2.341	0.293

Mean	C.V. %
0.387	17.9

100

	ON	Wt.	Avg.
A	8	3.043	0.380
B	8	3.577	0.447
C	8	3.441	0.430
D	8	3.342	0.418
E	8	3.084	0.386

Mean	C.V. %
0.412	7.0

	ON	Wt.	Avg.
A			
B			
C			
D			
E			

Mean	C.V. %

	ON	Wt.	Avg.
A			
B			
C			
D			
E			

Mean	C.V. %

Note: ON stands for original number per replicate, while SN refers to the number surviving after test completion.

## APPENDIX A

### STATISTICS SUMMARY

Both the lethal and sub-lethal endpoints were statistically calculated according to their respective EPA guidelines. The Chronic Freshwater organisms were calculated according to EPA-821-R-02-013, October 2002 Fourth Edition. The Chronic Marine and Estuarine organisms were calculated according to EPA-821-R-02-014, October 2002 Third Edition. The Acute Freshwater and Marine organisms were calculated according to EPA-821-R-02-012, October 2002 Fifth Edition. Listed below are the basic principles of these guidelines. If you would like a copy of the raw statistical calculations for your test then please contact us.

The chronic and acute *Pimephales promelas* and *Menidia beryllina* survival data is analyzed using Shipiro Wilks Test and Bartlett's Test. If the data passes both tests then the data is run through ANOVA and Dunnetts (parametric). If the data fails Shipiro Wilks Test or Bartlett's Test then Steels Many One Test (non-parametric) is used. The chronic *Pimephales promelas* and *Menidia beryllina* growth data is analyzed using Shipiro Wilks Test and Bartlett's Test. If the data passes one of these tests then the data is run through ANOVA and Dunnetts. If the data fails Shipiro Wilks Test and Bartlett's Test then Steels Many One Test is used.

The chronic *Mysidopsis bahia* survival data is analyzed using Chi-square test and Bartlett's Test. If the data passes both tests then the data is run through ANOVA and Dunnetts. If the data fails Chi-square test or Bartlett's Test then Steels Many One Test is used. *Mysidopsis bahia* growth data is analyzed using Chi-square test and Bartlett's Test. If the data passes one of these tests then the data is run through ANOVA and Dunnetts. If the data fails Chi-square test and Bartlett's Test then Steels Many One Test is used.

The acute *Mysidopsis bahia* survival data is analyzed using Shipiro Wilks Test and Bartlett's Test. If the data passes both tests then the data is run through ANOVA and Dunnetts. If the data fails Shipiro Wilks Test or Bartlett's Test then Steels Many One Test is used.

The chronic *Ceriodaphnia dubia* survival data are analyzed using the Fisher's Exact Test. The chronic *Ceriodaphnia dubia* reproduction and are analyzed using the Chi-square test and Bartlett Test. If the data passes one of these tests then the data is run through ANOVA and Dunnetts. If the data fails Chi-square test and Bartlett's Test then Steels Many One Test is used.

The acute *Daphnia pulex* and *Ceriodaphnia dubia* survival data is analyzed using Shipiro Wilks Test and Bartlett's Test. If the data passes both tests then the data is run through ANOVA and Dunnetts. If the data fails Shipiro Wilks Test or Bartlett's Test then Steels Many One Test is used.

55086

### Bio-Aquatic Testing, Inc.

2501 Mayes Road, Suite 100  
Carrollton, TX 75006  
Tel: 972-242-7750  
Fax: 972-242-7749

#### FRESH WATER TEST SETUP FORM

Client: San Antonio Water System

Permit WQ0010137003

Facility: Leon Creek WRC

Lab Number 55086

Outfall Name: 001

Number of samples 3

Dilution Water: Synthetic Lab

Receiving Water Name: \_\_\_\_\_

Dechlorinate Sample: No

Sx #	Rcvd Date	Rcvd Time	Sampling Dates		Sampling Times	
			Begin Date	End Date	Start	End
1	11/05/13	10:59	11/03/13	11/03/13	00:00	22:00
2	11/09/13	13:00	11/06/13	11/06/13	00:00	22:00
3	11/09/13	16:00	11/07/13	11/07/13	00:00	22:00

Type of Test(s)	
<u>Ceriodaphnia dubia</u>	<u>Chronic</u>
<u>Pimephales promelas</u>	<u>Chronic</u>

Start Sx # 1 Date: 11/5/2013  
 Renew Sx # 1 Date: 11/6/2013  
 Renew Sx # 1 Date: 11/7/2013  
 Renew Sx # 1 Date: 11/8/2013  
 Renew Sx # 2 Date: 11/9/2013  
 Renew Sx # 3 Date: 11/10/2013  
 Renew Sx # 3 Date: 11/11/2013

Test Start Date: 11/5/2013 Test End Date: 11/12/2013

Controls: Synthetic

pH Match: \_\_\_\_\_

Hardness Match: \_\_\_\_\_

Ceriodaphnia dubia Test Set Up: 10 Reps & 1 Organisms per Rep

Pimephales Test Set Up: 5 Reps & 8 Organism per Rep

Concentrations: 32 42 56 75 100 % LF % 100

Test Chemistry on these dilutions: 32 42 56 75 100

Samples received by:

<input checked="" type="radio"/> Greyhound	<input type="radio"/> UPS Next Day	<input type="radio"/> Delta Dash	<input type="radio"/> Delta
<input type="radio"/> Pony Express	<input type="radio"/> Client Delivered	<input type="radio"/> Southwest Airlines	<input type="radio"/> DHL
<input type="radio"/> Federal Express	<input type="radio"/> American Airlines	<input type="radio"/> Bio Pick Up	

Other: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# BIO-AQUATIC TESTING, INC.

Hardness, Alkalinity, Residual Chlorine, Specific Conductivity, and Salinity Analysis Data

Client: San Antonio Water System

Lab ID: 55086

Facility: Leon Creek WRC

Outfall: 001

Dilution Water(s): Synthetic Lab

Test Date: November 5, 2013

\*\* 100 %

Effluent Sample #	Received		** Residual Cl <sub>2</sub>	DeChlor (ml/L)	** Ammonia mg/L	Analyst Initials	Initial Salinity	Adjusted Salinity	Temp. Received
	Date	Time							
1	11/5/13	10:59	<0.10	N/A	<0.25	JR	N/A	N/A	3.7
2	11/9/13	13:00	<0.10	N/A	<0.25	JM	N/A	N/A	4
3	11/9/13	16:00	<0.10	N/A	<0.25	JR	N/A	N/A	4.5

**Chlorine Analysis Method:** Hanna Ion Specific Meter #193711 **Dechlorination Reagent:** 0.025 N Sodium Thiosulfate

Sample #	Received		Hardness (EDTA) As mg/L CaCO <sub>3</sub>		ALKALINITY TO END POINT pH 4.50 +/- 0.05 as mg/L CaCO <sub>3</sub>		Analyst Initials
	Date	Time	CON	100	CON	100	
	1	11/5/13	10:59	140.0	306.0	60.0	
2	11/9/13	13:00	140.0	338.0	60.0	221.0	PW/CH
3	11/9/13	16:00	140.0	340.0	60.0	205.0	PW/CH

Date	Lab	Sample #	Values are at Highest Dilution		Values are at 100% Dilution		Analyst	Other
			Specific Conductivity as umhos/cm	Salinity (ppt)	Residual Chlorine as mg Cl <sub>2</sub> /L	1 ml 0.02N Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> /L		
11/5	Lab H2O		441	0.3			AMC	
11/6	Lab H2O		448	0.3			DS	
11/7	Lab H2O		443	0.3			DP	
11/8	Lab H2O		435	0.3			JL	
11/9	Lab H2O		437	0.3			DS	
11/10	Lab H2O		441	0.3			JL	
11/11	Lab H2O		451	0.3			AMC	
11/5	OUTFALL*	1	1048	0.6	<0.10	N/A	AMC	
11/6	OUTFALL*	1	1058	0.6	<0.10	N/A	DS	
11/7	OUTFALL*	1	1083	0.6	<0.10	N/A	DP	
11/8	OUTFALL*	1	1079	0.6	<0.10	N/A	JL	
11/9	OUTFALL*	2	973	0.5	<0.10	N/A	DS	
11/10	OUTFALL*	3	1123	0.6	<0.10	N/A	JL	
11/11	OUTFALL*	3	1126	0.6	<0.10	N/A	AMC	

\*Conductivity is taken on the highest remaining effluent concentration used for test renewal, not necessarily 100%

# BIO-AQUATIC TESTING, INC.

pH, Dissolved Oxygen

Chronic

Ceriodaphnia dubia

Client: San Antonio Water System

Lab ID: 55086

Facility: Leon Creek WRC

Dilution Water(s): Synthetic Lab

Outfall: 001

Test Begin Date: November 5, 2013

NR indicates that the test is non-renewal.

ANALYST	DATE	TIME	SX#	UNIT	Concentration							
					Control	32	42	56	75	100		
AMC	11/5	Start	1	pH	7.8	7.5	7.5	7.4	7.3	7.2		
		25 ± 1		DO (mg/L)	7.9	8.0	8.2	8.3	8.7	9.3		
DS	11/6	24 Hr	1	pH	7.9	7.8	7.8	7.7	7.8	7.9		
		25 ± 1		DO (mg/L)	8.1	8.1	8.1	8.0	8.0	7.9		
		Renew	1	pH	8.1	8.1	8.0	7.9	7.8	7.5		
				DO (mg/L)	8.4	8.3	8.2	7.9	8.5	8.3		
DP	11/7	48 Hr	1	pH	7.7	7.6	7.6	7.6	7.6	7.8		
		25 ± 1		DO (mg/L)	8.1	8.1	8.1	8.0	8.0	8.1		
		Renew	1	pH	8.0	8.0	7.9	7.8	7.7	7.6		
				DO (mg/L)	8.4	8.4	8.3	8.1	8.5	8.4		
JL	11/8	72 Hr	1	pH	7.7	7.7	7.6	7.6	7.7	7.8		
		25 ± 1		DO (mg/L)	7.7	7.6	7.6	7.6	7.6	7.6		
		Renew	1	pH	8.0	7.8	7.8	7.7	7.7	7.8		
				DO (mg/L)	8.0	8.1	8.1	8.2	8.2	8.1		
DS	11/9	96 Hr	1	pH	7.7	7.7	7.7	7.8	7.8	7.9		
		25 ± 1		DO (mg/L)	7.9	7.2	7.2	7.1	7.1	7.1		
		Renew	2	pH	7.9	7.9	7.8	7.6	7.6	7.5		
				DO (mg/L)	8.5	8.4	8.2	8.1	8.0	7.8		
JL	11/10	120 Hr	2	pH	8.0	7.6	7.7	7.9	8.0	8.1		
		25 ± 1		DO (mg/L)	7.7	7.6	7.6	7.6	7.5	7.5		
		Renew	3	pH	8.0	8.0	7.9	7.8	7.6	7.4		
				DO (mg/L)	8.1	8.1	8.1	8.1	8.5	8.7		
JL	11/11	144 Hr	3	pH	7.6	7.5	7.5	7.6	7.7	7.8		
		25 ± 1		DO (mg/L)	7.2	7.2	7.2	7.0	6.9	6.8		
		Renew	3	pH	8.0	7.7	7.6	7.6	7.5	7.5		
				DO (mg/L)	7.7	8.0	8.2	8.4	8.6	8.8		
AMC	11/12	168 Hr	3	pH	7.7	7.6	7.7	7.8	7.9	8.0		
		25 ± 1		DO (mg/L)	7.9	7.9	7.9	7.9	8.0	8.0		

# BIO-AQUATIC TESTING, INC.

pH, Dissolved Oxygen

Chronic

Pimephales promelas

Client: San Antonio Water System

Lab Number: 55086

Facility: Leon Creek WRC

Dilution Water(s): Synthetic Lab

Outfall: 001

Test Begin Date: November 5, 2013

NR indicates that the test is non-renewal.

ANALYST	DATE	TIME	SX#	UNIT	Concentration							
					Control	32	42	56	75	100		
AMC	11/5	Start	1	pH	7.8	7.5	7.5	7.4	7.3	7.2		
		25 ± 1		DO (mg/L)	7.9	8.0	8.2	8.3	8.7	9.3		
DS	11/6	24 Hr	1	pH	7.8	7.8	7.8	7.7	7.8	7.8		
		25 ± 1		DO (mg/L)	8.8	8.7	8.7	8.6	8.5	8.4		
		Renew	1	pH	8.1	8.1	8.0	7.9	7.8	7.5		
				DO (mg/L)	8.4	8.3	8.2	7.9	8.5	8.3		
DP	11/7	48 Hr	1	pH	7.8	7.8	7.8	7.7	7.8	7.8		
		25 ± 1		DO (mg/L)	8.6	8.6	8.5	8.5	8.5	8.4		
		Renew	1	pH	8.0	8.0	7.9	7.8	7.7	7.6		
				DO (mg/L)	8.4	8.4	8.3	8.1	8.5	8.4		
JL	11/8	72 Hr	1	pH	7.8	7.6	7.6	7.7	7.7	7.8		
		25 ± 1		DO (mg/L)	8.0	7.8	7.8	7.7	7.7	7.7		
		Renew	1	pH	8.0	7.8	7.8	7.7	7.7	7.8		
				DO (mg/L)	8.0	8.1	8.1	8.2	8.2	8.1		
DS	11/9	96 Hr	1	pH	7.7	7.7	7.6	7.5	7.6	7.7		
		25 ± 1		DO (mg/L)	9.2	9.2	9.0	8.9	8.5	8.0		
		Renew	2	pH	7.9	7.9	7.8	7.6	7.6	7.5		
				DO (mg/L)	8.5	8.4	8.2	8.1	8.0	7.8		
JL	11/10	120 Hr	2	pH	7.7	7.6	7.7	7.7	7.8	7.8		
		25 ± 1		DO (mg/L)	8.5	8.3	8.2	8.1	7.9	7.8		
		Renew	3	pH	8.0	8.0	7.9	7.8	7.6	7.4		
				DO (mg/L)	8.1	8.1	8.1	8.1	8.5	8.7		
JL	11/11	144 Hr	3	pH	7.6	7.5	7.6	7.6	7.7	7.8		
		25 ± 1		DO (mg/L)	8.2	8.0	7.8	7.6	7.6	7.5		
		Renew	3	pH	8.0	7.7	7.6	7.6	7.5	7.5		
				DO (mg/L)	7.7	8.0	8.2	8.4	8.6	8.8		
AMC	11/12	168 Hr	3	pH	7.5	7.6	7.7	7.8	7.8	7.9		
		25 ± 1		DO (mg/L)	8.0	8.1	8.1	8.1	8.2	8.2		



# Appendix B

*Ceriodaphnia dubia*

## BIO-AQUATIC TESTING, INC.

Carrollton, TX

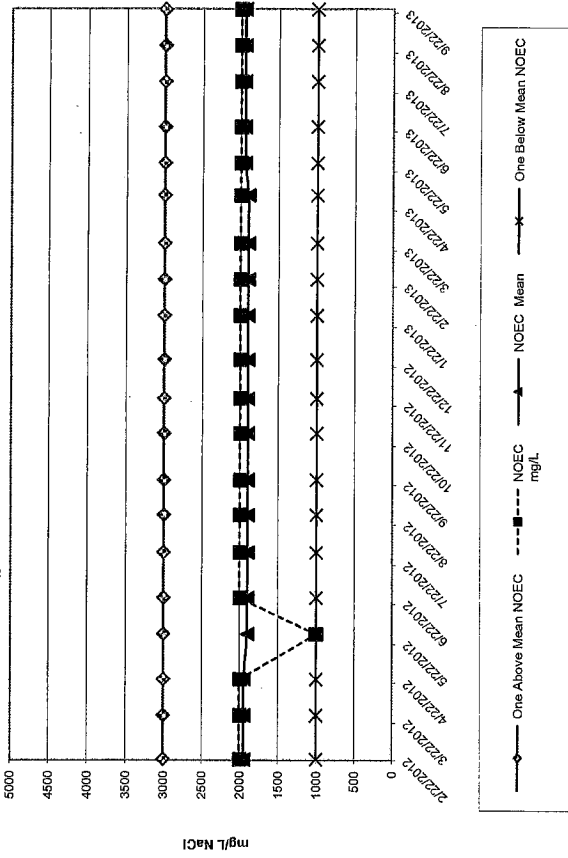
### REFERENCE TOXICANTS

Bio-Aquatic Testing conducts reference toxicant testing monthly for organisms cultured in-house. For studies requiring purchased organisms, reference toxicant testing is performed simultaneously. Reference toxicant testing validates data and measures organism consistency. Only reagent grade chemicals are used of the following choices: sodium laurel sulfate (SLS), copper sulfate, copper chloride, potassium chloride, and sodium chloride. Organism responses are tracked with control charts for each reference toxicant/organism combination. The data are examined for sensitivity trends and to determine if results are within EPA described limits.

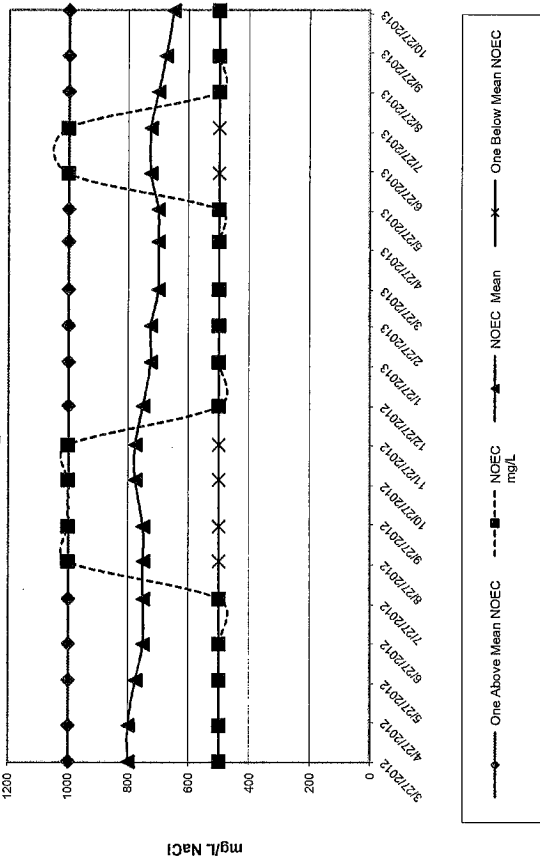
### CHRONIC REFERENCE TOXICANT TEST RESULTS

DILUTION WATER:	Standard Synthetic Freshwater
CHEMICAL:	Sodium Chloride
DURATION:	3-Brood Chronic
TEST NUMBER:	224
PROJECT NUMBER:	56238
START DATE:	10/29/2013
START TIME:	12:43
TOTAL NUMBER EXPOSED:	10 organisms per concentration
CONCENTRATIONS (mg/L):	CON 250 500 1000 2000 3000 4000
NUMBER DEAD PER CONCENTRATION:	0 0 1 0 1 10 10
TEST METHODS:	As listed in EPA-821-R-02-013
STATISTICAL METHODS:	SURVIVAL: Fisher's Exact Test  REPRODUCTION: ANOVA - Dunnett's
NOEC FOR SURVIVAL:	2000 mg/L
LOEC FOR SURVIVAL:	3000 mg/L
NOEC FOR REPRODUCTION:	500 mg/L
LOEC FOR REPRODUCTION:	1000 mg/L
PMSD:	15.2

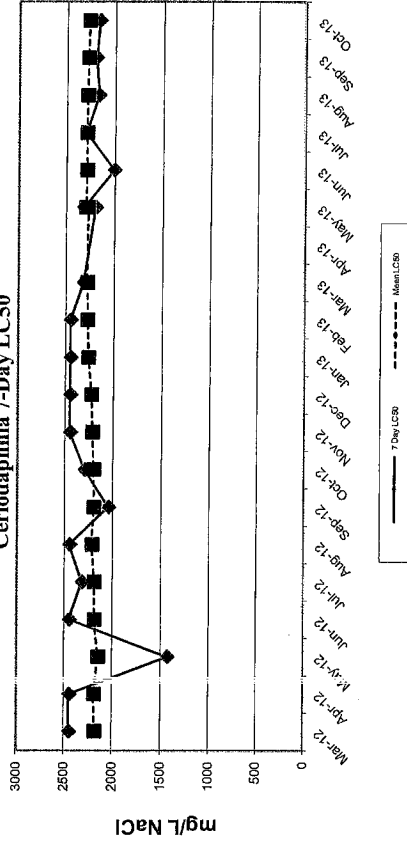
Ceriodaphnia Chronic Survival Control Chart



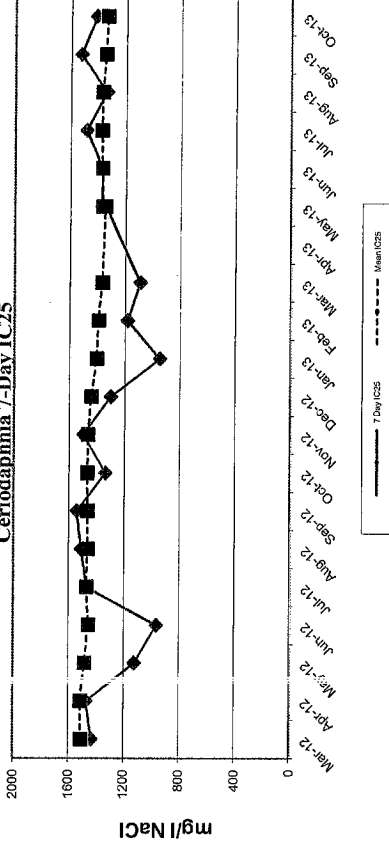
Ceriodaphnia Chronic Reproduction Control Chart



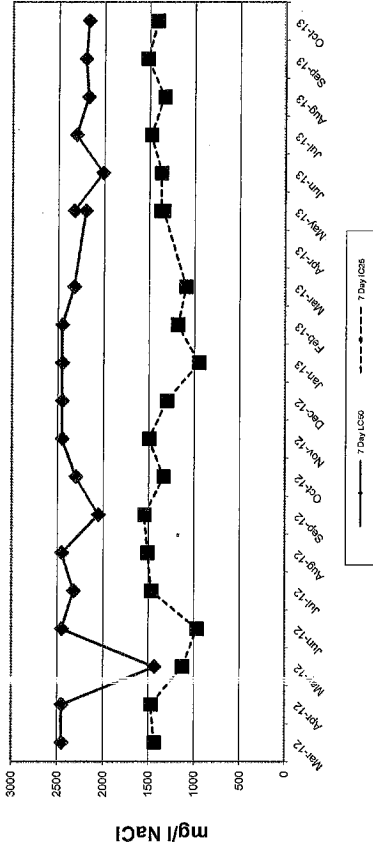
Ceriodaphnia 7-Day LC50



Ceriodaphnia 7-Day IC25



Ceriodaphnia 7-Day LC50 & IC25



# Appendix B

*Pimephales promelas*

## BIO-AQUATIC TESTING, INC.

Carrollton, TX

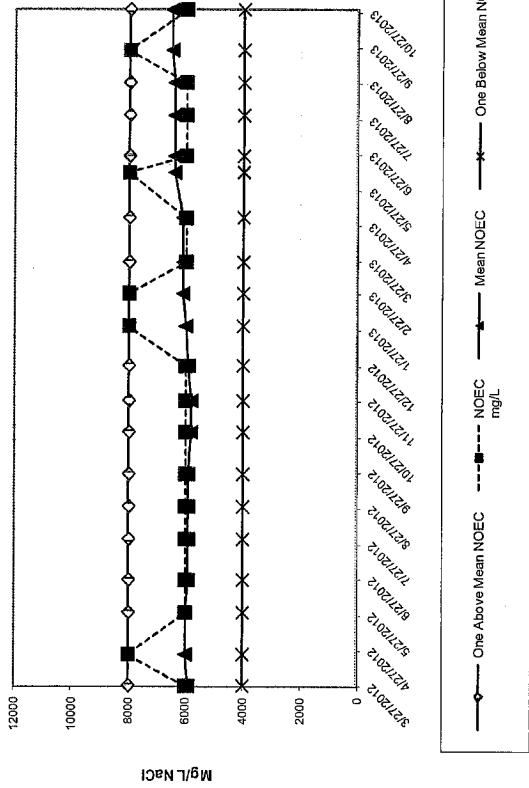
### REFERENCE TOXICANTS

Bio-Aquatic Testing conducts reference toxicant testing monthly for organisms cultured in-house. For studies requiring purchased organisms, reference toxicant testing is performed simultaneously. Reference toxicant testing validates data and measures organism consistency. Only reagent grade chemicals are used of the following choices: sodium laurel sulfate (SLS), copper sulfate, copper chloride, potassium chloride, and sodium chloride. Organism responses are tracked with control charts for each reference toxicant/organism combination. The data are examined for sensitivity trends and to determine if results are within EPA described limits.

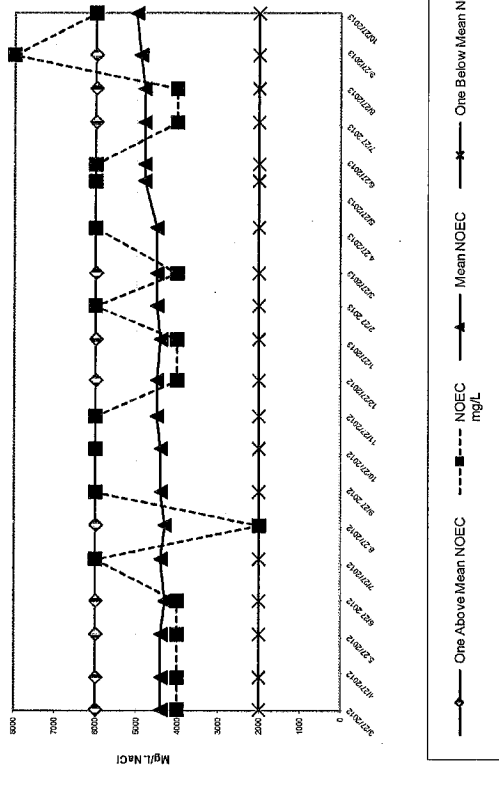
### CHRONIC REFERENCE TOXICANT TEST RESULTS

DILUTION WATER:	Standard Synthetic Freshwater
CHEMICAL:	Sodium Chloride
DURATION:	7 Days
TEST NUMBER:	264
PROJECT NUMBER:	56236
START DATE:	10/29/2013
START TIME:	15:40
TOTAL NUMBER EXPOSED:	40 organisms per concentration
CONCENTRATIONS (mg/L):	CON 2000 4000 6000 8000 10000 12000
NUMBER DEAD PER CONCENTRATION:	1 1 0 5 20 40 40
TEST METHODS:	As listed in EPA-821-R-02-013
STATISTICAL METHODS:	SURVIVAL: Steel's Many-One Rank Test GROWTH: ANOVA and Dunnett's Test
NOEC FOR SURVIVAL:	6000 mg/L
LOEC FOR SURVIVAL:	8000 mg/L
NOEC FOR GROWTH:	6000 mg/L
LOEC FOR GROWTH:	8000 mg/L
PMSD:	21.6

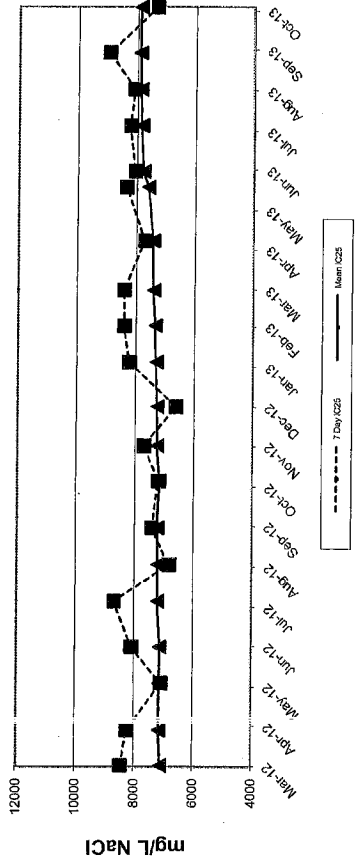
Fathead Chronic Survival Control Chart



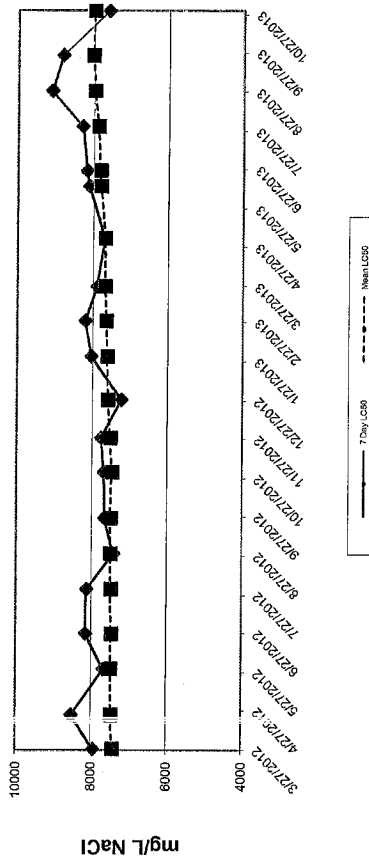
Fathead Chronic Growth Control Chart



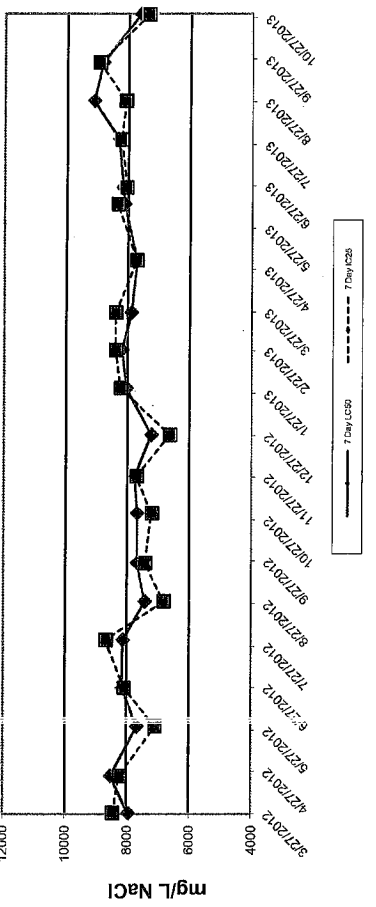
Fathead 7-Day IC25



Fathead 7-Day LC50



Fathead 7-Day LC50 & IC25



## APPENDIX C

### LITERATURE REFERENCES

- U.S.E.P.A., 2002. Short-Term Methods For Estimating The Chronic Toxicity Of Effluents And Receiving Water To Freshwater Organisms (Fifth Edition) U.S. Environmental Protection Agency, Office of Water, Washington D.C., EPA-821-R-02-012.
- U.S.E.P.A., 2002. Short-Term Methods For Estimating The Chronic Toxicity Of Effluents and Receiving Water To Marine And Estuarine Organisms (Third Edition) U.S. Environmental Protection Agency, Office of Water, Washington D.C., EPA-821-R-02-014.
- U.S.E.P.A., 2002. Short-Term Methods For Estimating The Chronic Toxicity Of Effluents And Receiving Water To Freshwater Organisms (Fourth Edition) U.S. Environmental Protection Agency, Office of Water, Washington D.C., EPA-821-R-02-013.
- U.S.E.P.A., 1991. Technical Support Document For Water Quality-Based Toxics Control, U.S. Environmental Protection Agency, EPA-505-2-90-001.
- Zarr, Jerrold, H., 1984. Biostatistical Analysis, (Second Edition). Prentice-Hall, Inc., Englewood Cliffs, N.J.

# **CHAIN-OF-CUSTODY SHEETS**

Appendix D



**BIO-AQUATIC TESTING, INC.**  
 2501 MAYES RD., STE. 100  
 CARROLLTON, TX 75006  
 PH: 972-242-7750 FAX: 972-242-7749

Client: San Antonio, City of  
 Facility: Leon Creek WWTP  
 Permit No: WQ0010137003  
 Outfall: 001  
 Client Contact: ANNA RAMOS  
 Client Phone: 210-233-3210

**A. REVIEW SCHEDULED TEST(S):**

Chronic	Ceriodaphnia dubia
Chronic	Pimephales promelas

To Ship the 1st Sample on: 10/21/2013

Concentration: 32 42 56 75 100

(For TX) Setup separate 24hr Acute Test?  No

**B. CHAIN OF CUSTODY**  No Only No Sample Left **Lab Id:** 55086  
 Please Review & Complete Sections A, B, C, & D. **Sample No.:** 55086 - **P.O. No.:** \_\_\_\_\_  
 Check Sample No.: \_\_\_\_\_ First, \_\_\_\_\_ Second, or \_\_\_\_\_ Third.

**B.** Use area below to make changes, if the Scheduled Test(s) in "A" are incorrect:

Freshwater Species		Saltwater Species	
<i>C. dubia</i> (water flea)	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	<i>D. magna</i> (water flea)	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour
<i>D. pulex</i> (water flea)	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	<i>P. promelas</i> (minnow)	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour
<i>Selenastrum</i> (green algae)	<input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	<i>M. beryllina</i> (minnow)	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour
<i>Mysidopsis</i> (shrimp)	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour		

**Notes:** 4th Quarter Chronic Cerio/Fathrad (BG)

Sample ID or Location: (Outfall No. or Name)	Sample Type: E = Effluent RS = Rec. Stream S = Sediment	Sample Date		Grab or Composite	Sampled By: (Sign and Print Name)	Number Of Containers Shipped
		From	To			
1 001	E	11-3-13	11-3-13	Composite	Alfredo GAYLA	1
2 001	E	11-3-13	11-3-13	Composite	Fernando Quijano - Fernando De La Cruz	
3						

**D.** Relinquished By: \_\_\_\_\_ Date: 11-3-13 Time: 0600  
 Received By: \_\_\_\_\_ Date: 11-3-13 Time: 0600 hrs  
 1 Alfredo GAYLA  
 2 Fernando Quijano  
 3 Xaver Quijano

**BAT sample personnel:**  Yes  No  
**Check for Ammonia:**  Yes  No  
**Dechlorinate Sample:**  Yes  No  
**Dilution Water:**  Receiving Stream  Synthetic Lab

**Bio-Aquatic Sample Login**

Date: 11-5-13 Time: 1059 By: SK  
 Temperature: 3.7 (C) IR#: 002 Int. Salinity: ppt Adj. Salinity: ppt  
 Chlorine: 4.01 mg/l Ammonia: 0.05 Other:  
 pH: 7.2 DO: 9.9 mg/l Condition: Good



**BIO-AQUATIC TESTING, INC.**  
 2501 MAYES RD., STE. 100  
 CARROLLTON, TX 75006  
 PH: 972-242-7750 FAX: 972-242-7749

Client: San Antonio, City of  
 Facility: Leon Creek WWTP  
 Permit No: WQ0010137003  
 Outfall: 001  
 Client Contact: ANNA RAMOS  
 Client Phone: 210-233-3210

**A. REVIEW SCHEDULED TEST(S):**  
 Chronic Ceriodaphnia dubia  
 Chronic Pimephales promelas

To Ship the 1st Sample on: 10/21/2013

Concentration: 32 42 56 75 100

(For TX) Setup separate 24hr Acute Test?  Yes  No

**CHAIN OF CUSTODY**

Lab Id: **55086**

Please Review & Complete Sections A, B, C, & D.

Sample No: **55086**

P.O. No:

Check Sample No.: First, Second, or Third.

**B.** Use area below to make changes, if the Scheduled Test(s) in "A" are incorrect:

Freshwater Species		Saltwater Species	
C. dubia (water flea)	D. pulex (water flea)	D. magna (water flea)	P. promelas (minnow)
<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour
		Selastium (green algae)	M. beryllina (minnow)
			Mystidopsis (shrimp)

Notes: 4th Quarter Chronic Cerio/Fath read (BG)

Sample ID or Location: (Outfall No. or Name)	Sample Type: E = Effluent S = Rec. Stream S = Sediment	Sample Date		Grab or Composite	Sampled By: (Sign and Print Name)	Number Of Containers Shipped
		From	To			
1 Leon Creek Outfall #1	E	11-06-13	0600	C	Raul Rocha Raul Rocha	
2 Leon Creek Outfall #1	E	Nov 6, 2013	1800	C	Robert E. Howell Jr. Paul C. Yeloff	
3 Leon Creek Outfall #1	E	11-06-13	2200	C	Raul Rocha Raul Rocha	

Relinquished By:	Received By:		Date	Time
	Signature	Signature		
1 Raul Rocha	Xavier Belson		11-7-13	0700
2 Xavier Belson	CVAROSE		11/7/13	0751
3				

**BAT sample personnel:**  Yes  No

**Check for Ammonia:**  Yes  No

**Dechlorinate Sample:**  Yes  No

**Dilution Water:**  Receiving Stream  Synthetic Lab

Date: 11-9-13 Time: 1300 By: J

Temperature: 4 (C) IP#: 002 Int. Salinity: ppt Adj. Salinity: ppt

Chlorine: 0.1 mg/l Ammonia: 0.25 mg/l Other:

pH: 7.7 DO: 7.9 mg/l Condition: Good

**Bio-Aquatic Sample Login**





**BIO-AQUATIC TESTING, INC.**  
 2501 MAYES RD., STE. 100  
 CARROLLTON, TX 75006  
 PH: 972-242-7750 FAX: 972-242-7749

**Client:** San Antonio, City of  
**Facility:** Leon Creek WWTP  
**Permit No.:** WQ0010137003  
**Outfall:** 001  
**Client Contact:** ANNA RAMOS  
**Client Phone:** 210-233-3210

**A. REVIEW SCHEDULED TEST(S):**

Chronic	Ceriodaphnia dubia
Chronic	Pimephales promelas

**Concentration:** 32 42 56 75 100

(For TX) Setup separate 24hr Acute Test?  No

**C.**

Sample ID or Location: (Outfall No. or Name)	Sample Type: E = Effluent R = Receiving Stream S = Sediment	Sample Date		Sample Time (military)	Grab or Composite	Sampled By: (Sign and Print Name)	Number of Containers Shipped
		From	To				
1 Leon Creek outfall	E	11-07-13	11-07-13	0600	C	Rod Red Rawl Reche	
2 Leon Creek outfall	E	11-7-13	11-7-13	0800	C	Fernando Delacruz	
3 Leon Creek outfall	E	11-7-13	11-7-13	2000	C	Alfredo Gutierrez	

**D.**

Relinquished By:	Date	Time	Received By:	Date	Time
Alfredo Gutierrez	11-8-13	0600	Xavi Jahn	11-8-13	0721
Xavi Jahn	11-8-13	0759	Josh Ben	11-9-13	1000

**BAT sample personnel:**  Yes  No  
**Check for Ammonia:**  Yes  No  
**Dechlorinate Sample:**  Yes  No  
**Dilution Water:**  Receiving Stream  Synthetic Lab

**CHAIN OF CUSTODY**  Bio Only No Sample Left **Lab Id:** 55086  
 Please Review & Complete Sections A, B, C, & D. **Sample No.:** 55086  
**Check Sample No.:** First, Second, or Third. **P.O. No.:**

**B.** Use area below to make changes, if the Scheduled Test(s) in "A" are incorrect:

Freshwater Species		Saltwater Species	
C. dubia (water flea)	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	D. pulex (water flea)	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour
P. magna (water flea)	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	P. promelas (minnow)	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour
Selastrium (green algae)	<input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	M. beryllina (minnow)	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour
Mysidopsis (shrimp)	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour		

Notes: 4th Quarter Chronic Cerio/Fathhead (BG)

\* Made up for use on 11-9-13

# **REGULATORY AGENCY TABLES**

## Appendix E

BIOMONITORING REPORT

*Ceriodaphnia dubia* SURVIVAL AND REPRODUCTION TEST

Permittee: San Antonio Water System - Leon Creek WRC  
 Permit No.: WQ0010137003  
 Outfall No.: 001

		Date/Time		Date/Time
Dates and times	FROM:	<u>11/3/2013 @00:00</u>	TO:	<u>11/3/2013@ 22:00</u>
Composites were collected:	FROM:	<u>11/6/2013 @00:00</u>	TO:	<u>11/6/2013@ 22:00</u>
	FROM:	<u>11/7/2013 @00:00</u>	TO:	<u>11/7/2013@ 22:00</u>

Test Initiation: Time: 11:47 Date: 11/5/2013

Dilution Water Used:  Receiving Water  Synthetic Dilution Water

NUMBER OF YOUNG PRODUCED PER ADULT AT TEST TERMINATION

REPLICATE	EFFLUENT CONCENTRATION (%)					
	0%	32 %	42 %	56 %	75 %	100 %
A	6	22	26	25	23	21
B	20	28	29	29	21	E
C	21	28	26	30	30	31
D	19	30	32	29	25	33
E	18	28	31	26	28	28
F	13	28	28	30	31	14
G	26	30	26	30	31	33
H	24	36	35	30	35	31
I	7	27	26	D- 4	31	29
J	21	24	25	E	25	23
MEAN	17.5	28.1	28.4	28.6	28	27
CV % <sup>1</sup>	38.5	13.2	11.6	6.9	15.6	23.7
PMSD	Acceptable Range 47 or Less					36.2 %

<sup>1</sup> Coefficient of Variation = (standard deviation/mean) x 100) Calculations are based on young of the surviving females. Males are designated (M), and dead females are designated (D) along with the number of neonates released prior to death. (E) anomalous value, spilled cup, or technician error.

Table 1 (Sheet 2 of 4 )  
 BIOMONITORING REPORT

*Ceriodaphnia dubia* SURVIVAL AND REPRODUCTION TEST

Permittee: San Antonio Water System - Leon Creek WRC  
 Permit No.: WQ0010137003  
 Outfall No.: .001

PERCENT SURVIVAL

Time of Reading	EFFLUENT CONCENTRATION (%)					
	0%	32 %	42 %	56 %	75 %	100 %
24 HOURS	100.0	100.0	100.0	100.0	100.0	100.0
48 HOURS	100.0	100.0	100.0	100.0	100.0	100.0
7-DAY	100.0	100.0	100.0	88.9	100.0	100.0

1. DUNNETT'S PROCEDURE OR STEEL'S MANY-ONE RANK TEST OR WILCOXON RANK SUM TEST  
 (with Bonferroni adjustment as appropriate for Sub-Lethality)

Is the mean number of young produced per adult significantly less ( $p=0.05$ ) than the number of young per adult in the control for the % effluent corresponding to significant non-lethal effects?

CRITICAL DILUTION ( 100 % ): \_\_\_\_\_ YES \_\_\_\_\_ X \_\_\_\_\_ NO

If you report NO, enter a '0' on the DMR form for Parameter **TWP3B**, other wise enter a '1'. This parameter is also referred to as the 7-DAY *Ceriodaphnia* Sub-Lethal Pass/Fail.

2. FISHER'S EXACT TEST (as appropriate for Lethality)

Is the mean survival at test end significantly less ( $p=0.05$ ) than the control's survival for the % effluent corresponding to lethality?

CRITICAL DILUTION ( 100 % ): \_\_\_\_\_ YES \_\_\_\_\_ X \_\_\_\_\_ NO

If you report NO, enter a '0' on the DMR form for Parameter **TLP3B**, other wise enter a '1'. This parameter is also referred to as the 7-DAY *Ceriodaphnia* Lethal Pass/Fail.

3. Enter the percent effluent corresponding to each NOEC/LOEC below:

a. NOEC Survival = 100 % Effluent (Parameter TOP3B)

b. LOEC Survival = Q\* % Effluent (Parameter TXP3B)

c. NOEC Reproduction = 100\*\* % Effluent (Parameter TPP3B)

d. LOEC Reproduction = Q\*\* % Effluent (Parameter TYP3B)

Q\* refers to a value that is not calculable

\*\*Replicate "10" of the 56% effluent concentration was excluded from the statistical analysis as it was determined to be an outlier.

Table 1 (Sheet 3 of 4 )  
BIOMONITORING REPORT

*Pimephales promelas* SURVIVAL AND GROWTH TEST

Permittee: San Antonio Water System - Leon Creek WRC  
 Permit No.: WQ0010137003  
 Outfall No.: 001

Dates and times FROM: 11/3/2013 @ 00:00 TO: 11/3/2013 @ 22:00  
 Composites were collected: FROM: 11/6/2013 @ 00:00 TO: 11/6/2013 @ 22:00  
 FROM: 11/7/2013 @ 00:00 TO: 11/7/2013 @ 22:00

Test Initiation: Time: 17:30 Date: 11/5/2013

Dilution Water Used:  Receiving Water  Synthetic Dilution Water

DATA TABLE FOR GROWTH OF *Pimephales promelas*

Effluent Concentration	Average Dry Weight in milligrams (mg) per replicate					Mean Dry Weight (mg)	CV % <sup>1</sup>
	A	B	C	D	E		
0%	0.353	0.505	0.417	0.417	0.406	0.419	13.01
32 %	0.443	0.315	0.353	0.376	0.364	0.370	12.61
42 %	0.420	0.374	0.485	0.513	0.408	0.440	13.11
56 %	0.418	0.448	0.508	0.411	0.572	0.471	14.42
75 %	0.445	0.399	0.457	0.344	0.293	0.387	17.86
100 %	0.380	0.447	0.430	0.418	0.386	0.412	6.97
PMSD	Acceptable Range 30 or Less					19.8 %	

<sup>1</sup> Coefficient of Variation = (standard deviation/mean) x 100

?= cannot be calculated due to 100% mortality or lab exception

DATA TABLE FOR SURVIVAL OF *Pimephales promelas*

Effluent Concentration	Percent Survival per replicate					Average % Survival			CV % <sup>1</sup>
	A	B	C	D	E	24 Hours	48 Hours	7-Day	
0%	87.5	100	87.5	100	100	100	100	95	7.21
32 %	100	100	100	100	100	100	100	100	0.00
42 %	100	100	100	100	100	100	100	100	0.00
56 %	100	100	100	100	100	100	100	100	0.00
75 %	100	100	100	100	87.5	100	100	97.5	5.73
100 %	100	100	100	100	100	100	100	100	0.00

Table 1 (Sheet 4 of 4 )  
BIOMONITORING REPORT

*Pimephales promelas* SURVIVAL AND GROWTH TEST

Permittee: San Antonio Water System - Leon Creek WRC  
Permit No.: WQ0010137003  
Outfall No.: 001

1. DUNNETT'S PROCEDURE OR STEEL'S MANY-ONE RANK TEST OR WILCOXON RANK SUM TEST  
(with Bonferroni adjustment as appropriate for Sub-Lethality)

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

CRITICAL DILUTION ( 100% ): \_\_\_\_\_ YES \_\_\_\_\_ X \_\_\_\_\_ NO

If you report NO, enter a '0' on the DMR form for Parameter **TWP6C**, other wise enter a '1'. This parameter is also referred to as the 7-DAY *Pimephales* Sub-Lethal Pass/Fail.

2. DUNNETT'S PROCEDURE OR STEEL'S MANY-ONE RANK TEST OR WILCOXON RANK SUM TEST  
(as appropriate for Lethality) Is the survival at 7 days significantly less ( $p=0.05$ ) than the control's survival for % effluent corresponding to lethality?

CRITICAL DILUTION ( 100% ): \_\_\_\_\_ YES \_\_\_\_\_ X \_\_\_\_\_ NO

If you report NO, enter a '0' on the DMR form for Parameter **TLP6C**, other wise enter a '1'. This parameter is also referred to as the 7-DAY *Pimephales* Lethal Pass/Fail.

3. Enter the percent effluent corresponding to each NOEC/LOEC below:

For DMR Form:

- a. NOEC Survival = 100 % Effluent (Parameter TOP6C)  
b. LOEC Survival = Q\* % Effluent (Parameter TXP6C)  
c. NOEC Growth = 100 % Effluent (Parameter TPP6C)  
d. LOEC Growth = Q\* % Effluent (Parameter TYP6C)

Q\* refers to a value that is not calculable



### Report Revision Form

Report Revision Number 0 for Lab ID 55086 was revised on 12/2/2013.

The revision was issued for the following reason(s):

- Typo in the report document or tables
- Missing sheets or tables
- Hard data was not scanned in as required by the client
- Missing specially requested forms or data for the client
- Other (Please Specify):

Client and facility names revised to reflect client's permit.

# OVERFLOW REPORT

PERIOD:

WATERSHED: MEDIO CREEK

TCEQ PERMIT # 10137-040

EPA PERMIT # 0055689

WO #	INSPT#	SR #	DATE	ADDRESS	GALLONS	CAUSE	ACTION	HRS	COMMENTS
TOTAL EVENTS		TOTAL GALLONS:					TOTAL DURATION:		

Thursday, December 12, 2013



**SAN ANTONIO WATER SYSTEM  
INTEROFFICE MEMORANDUM**

**TO:** Parviz Chavol, Senior Director, Production & Treatment

**FROM:** Veronica J. Godley, Director, Environmental Laboratory Services *V. Godley*

**COPY:** Anna Polanco-Ramos, Manager Laboratory Service; Monica Shafer, Quality Assurance Coordinator, Laboratory Services; SAWS Treatment Managers

**DATE:** December 17, 2013

**SUBJECT:** Laboratory Qualifier Notification for BOD Analyses

---

This memorandum documents a number of qualifier incidents occurring in the month of November with the BOD and CBOD tests performed at the San Antonio Water System (SAWS) Laboratory. The BOD and CBOD data from the samples listed in the attached table were reported with "B" and/or "Q" qualifiers. Results that are flagged with a "B" were qualified in accordance with laboratory quality system requirements because the measured oxygen depletion for the blanks did not meet the method standard limit of  $\pm 0.20$  mg/L.

Results that are flagged with a "Q" were qualified in accordance with laboratory quality system requirements because the Glucose-Glutamic Acid Standard (GGA) controls did not meet the method specified limit of 167.5-228.5 mg/L. For the month of November, all qualifiers for each day are listed in the attached table.

As a result of the excessive issues all personnel who perform these tests were retrained in mandatory training sessions, were required to re-read the standard operating procedures for BOD and COD analysis and all activities were documented as such. In addition each analyst that is assigned to the station is supervised and observed by the acting team leader whose responsibility the test falls under.

The laboratory will continue to monitor these tests in accordance with the procedures set by our accreditation. Should you have any questions regarding the data, please contact Ms. Monica Shafer, SAWS Quality Assurance Coordinator at 210-233-3205 or at [Monica.Shafer@saws.org](mailto:Monica.Shafer@saws.org).

Laboratory Qualifier Notification

December 17, 2013

Page 2

Attachment

Sample Date	Avg. Blank (n=2)		Qualifier added				
	BOD (mg/L)	CBOD (mg/L)	Dos Rios Effluent BOD	Dos Rios Effluent CBOD	Leon Creek Effluent BOD	Leon Creek Effluent CBOD	Medio Creek Effluent CBOD
11/1/13	-0.39	-0.30	B	B	B	B	B
11/7/13	0.30	0.44	B	B and Q	B	B and Q	B and Q
11/8/13	-0.33	-0.28	B	B	B	B	B
11/9/13	-0.38	-0.39	B	B	B	B	B
11/10/13	-0.38	-0.39	B and Q	B	B and Q	B	B
11/11/13	-0.22	-0.29	B	None	B	None	None
11/12/13	-0.22	-0.20	B	None	B	None	None
11/14/13	-0.24	-0.15	B	None	B	None	None
11/15/13	-0.14	-0.16	None	Q	None	Q	Q
11/16/13	-0.43	-0.36	B	B	B	B	B
11/17/13	-0.43	-0.36	B	B	B	B	B
11/22/13	0.26	0.32	B	B	B	B	B
11/27/13	-0.21	-0.16	B	None	B	None	None
11/29/13	-0.01	0.02	Q	Q	Q	Q	Q
11/30/13	-0.03	0.10	Q	Q	Q	Q	Q

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

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

Form Approved  
OMB No. 2040-0004

NAME: MEDIO CREEK WATER RECYCLING CENTER  
ADDRESS: 3495 VALLEY RD  
SAN ANTONIO, TX 78221

DISCHARGE MONITORING REPORT (DMR)

TX0055689	001-B
PERMIT NUMBER	DISCHARGE NUMBER
MONITORING PERIOD	
MM/DD/YYYY	MM/DD/YYYY
11/1/2013	11/30/2013

DMR Mailing ZIP CODE: 78221  
MAJOR (SUBR 13)  
DOMESTIC FACILITY - 001  
External Outfall

FACILITY: MEDIO CREEK WATER RECYC. CTR.  
LOCATION: 1300FT N USHWY 90 APPROX 1.25M W OF IH410

ATTN: STEVEN CLOUSE, SENIOR VP

No Discharge

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Oxygen, dissolved (DO)	SAMPLE MEASUREMENT	*****	*****	*****	7.06	*****	*****		0	Daily	Grab
00300 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	6 MO MIN	*****	*****	mg/L		Daily	GRAB
pH	SAMPLE MEASUREMENT	*****	*****	*****	7.38	*****	7.99		0	Daily	Grab
00400 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	6 MINIMUM	*****	9 MAXIMUM	SU		Daily	GRAB
Solids, total suspended	SAMPLE MEASUREMENT	74	*****	*****	*****	1.20	3.10		0	Daily	Compos
00530 1 0 Effluent Gross	PERMIT REQUIREMENT	2002 DAILY AV	*****	lb/d	*****	15 DAILY AV	30 DAILY MX	mg/L		Daily	COMPOS
Nitrogen, ammonia total (as N)	SAMPLE MEASUREMENT	24	*****	*****	*****	0.39	1.56		0	Daily	Compos
00610 1 0 Effluent Gross	PERMIT REQUIREMENT	267 DAILY AV	*****	lb/d	*****	2 DAILY AV	7 DAILY MX	mg/L		Daily	COMPOS
Flow, in conduit or thru treatment plant	SAMPLE MEASUREMENT	7.37	8.61	*****	*****	*****	*****	*****	0	Continuous	TotalZ
50050 1 0 Effluent Gross	PERMIT REQUIREMENT	Req. Mon. DAILY AV	Req. Mon. DAILY MX	MGD	*****	*****	*****	*****		Continuous	TOTALZ
Flow, in conduit or thru treatment plant	SAMPLE MEASUREMENT	*****	10502	*****	*****	*****	*****	*****	0	Continuous	TotalZ
50050 P 0 See Comments	PERMIT REQUIREMENT	*****	27778 2HR PEAK	gal/min	*****	*****	*****	*****		Continuous	TOTALZ
Flow, in conduit or thru treatment plant	SAMPLE MEASUREMENT	7.48	*****	*****	*****	*****	*****	*****	0	Continuous	TotalZ
50050 Y 0 Effluent Gross (Supplementary)	PERMIT REQUIREMENT	16 ANNL AVG	*****	MGD	*****	*****	*****	*****		Continuous	TOTALZ

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	TELEPHONE	DATE
Steve Clouse Senior Vice President & COO		210-233-3774	12/13/2013
TYPED OR PRINTED			

*Steve Clouse*  
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

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

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

**NAME:** MEDIO CREEK WATER RECYCLING CENTER  
**ADDRESS:** 3495 VALLEY RD  
 SAN ANTONIO, TX 78221

**FACILITY:** MEDIO CREEK WATER RECYC. CTR.  
**LOCATION:** 1300FT N USHWY 90 APPROX 1.25M W OF  
 IH410

**ATTN:** STEVEN CLOUSE, SENIOR VP

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

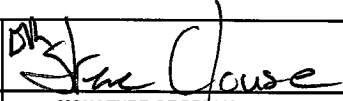
Form Approved  
 OMB No. 2040-0004

TX0055689	001-B
PERMIT NUMBER	DISCHARGE NUMBER
MONITORING PERIOD	
MM/DD/YYYY	MM/DD/YYYY
11/1/2013	11/30/2013

**DMR Mailing ZIP CODE:** 78221  
**MAJOR**  
 (SUBR 13)  
 DOMESTIC FACILITY - 001  
 External Outfall

No Discharge

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
E. coli	SAMPLE MEASUREMENT	*****	*****	*****	*****	1.84	14.0		0	Daily	Grab
51040 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	*****	126 DAILY AV	394 DAILY MX	CFU/100m L		Daily	GRAB
BOD, carbonaceous, 05 day, 20 C	SAMPLE MEASUREMENT	127	*****		*****	2.07	4.00		0	Daily	Compos
80082 1 0 Effluent Gross	PERMIT REQUIREMENT	934 DAILY AV	*****	lb/d	*****	7 DAILY AV	20 DAILY MX	mg/L		Daily	COMPOS

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE	DATE
			210-233-3774	12/13/2013
Steve Clouse Senior Vice President & COO			AREA Code	NUMBER
TYPED OR PRINTED				MM/DD/YYYY

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

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

NAME: MEDIO CREEK WATER RECYCLING CENTER  
 ADDRESS: 3495 VALLEY RD  
 SAN ANTONIO, TX 78221

FACILITY: MEDIO CREEK WATER RECYC. CTR.  
 LOCATION: 1300FT N USHWY 90 APPROX 1.25M W OF  
 IH410

ATTN: STEVEN CLOUSE, SENIOR VP

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

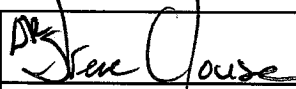
Form Approved  
 OMB No. 2040-0004

TX0055689	TX1-Q
PERMIT NUMBER	DISCHARGE NUMBER
MONITORING PERIOD	
MM/DD/YYYY	MM/DD/YYYY
10/1/2013	12/31/2013

DMR Mailing ZIP CODE: 78221  
 MAJOR (SUBR 13)  
 48-HOUR ACUTE FRESHWATER - 001  
 External Outfall

No Discharge

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Whole effluent toxicity - retest #1	SAMPLE MEASUREMENT	*****	*****	*****	N/A	N/A	*****				
22415 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Opt. Mon. 48HR MIN	Opt. Mon. MO AV MN	*****	pass=0/fail= 1		See Permit	COMP24
Whole effluent toxicity - retest #2	SAMPLE MEASUREMENT	*****	*****	*****	N/A	N/A	*****				
22416 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Opt. Mon. 48HR MIN	Opt. Mon. MO AV MN	*****	pass=0/fail= 1		See Permit	COMP24
LF Pass/Fail Statre 48Hr Acute Daphnia Pulex	SAMPLE MEASUREMENT	*****	*****	*****	0	0	*****		0	Quarterly	Comp24
TEM3D 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 48HR MIN	Req. Mon. MO AV MN	*****	pass=0/fail= 1		Quarterly	COMP24
LF Pass/Fail Statre 48Hr Acute Pimephales Promela	SAMPLE MEASUREMENT	*****	*****	*****	0	0	*****		0	Quarterly	Comp24
TEM6C 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 48HR MIN	Req. Mon. MO AV MN	*****	pass=0/fail= 1		Quarterly	COMP24
NOEC Lethal Static Renewal 48HR Acute Daphnia pulex	SAMPLE MEASUREMENT	*****	*****	*****	100	100	*****		0	Quarterly	Comp24
TOM3D 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 48HR MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24
NOEC Lethal Static Renewal 48HR Acute Pimephales promelas	SAMPLE MEASUREMENT	*****	*****	*****	100	100	*****		0	Quarterly	Comp24
TOM6C 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 48HR MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24
LOEC Lethal Survival Static Renewal 48HR Acute Daphnia pulex	SAMPLE MEASUREMENT	*****	*****	*****	Q	Q	*****		0	Quarterly	Comp24
TXM3D 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 48HR MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER  Steve Clouse Senior Vice President & COO TYPED OR PRINTED	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE	DATE	
			210-233-3774	12/13/2013	
			AREA Code	NUMBER	MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)  
 (PASS = 0 FAIL = 1) REPORT PASS AS '0' AND REPORT FAIL AS '1' IN CONCENTRATION ABOVE. \_\_\_\_\_ 10137-040

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

**NAME:** MEDIO CREEK WATER RECYCLING CENTER  
**ADDRESS:** 3495 VALLEY RD  
 SAN ANTONIO, TX 78221

**FACILITY:** MEDIO CREEK WATER RECYC. CTR.  
**LOCATION:** 1300FT N USHWY 90 APPROX 1.25M W OF  
 IH410

**ATTN:** STEVEN CLOUSE, SENIOR VP

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

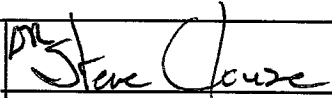
Form Approved  
 OMB No. 2040-0004

TX0055689	TX1-Q
PERMIT NUMBER	DISCHARGE NUMBER
MONITORING PERIOD	
MM/DD/YYYY	MM/DD/YYYY
10/1/2013	12/31/2013

**DMR Mailing ZIP CODE:** 78221  
 MAJOR (SUBR 13)  
 48-HOUR ACUTE FRESHWATER - 001  
 External Outfall

No Discharge

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
LOEC Lethal Survival Static Renewal 48HR Acute Pimephales promelas	SAMPLE MEASUREMENT	*****	*****	*****	Q	Q	*****		0	Quarterly	Comp24
TXM6C 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	Req. Mon. 48HR MIN	Req. Mon. MO AV MN	*****	%		Quarterly	COMP24

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER  Steve Clouse Senior Vice President & COO  TYPED OR PRINTED	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE	DATE	
			210-233-3774	12/13/2013	
			AREA Code	NUMBER	MM/DD/YYYY

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

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# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

P.O. BOX 13087 • AUSTIN, TEXAS 78711-3087  
MONTHLY EFFLUENT REPORT



SAN ANTONIO WATER SYSTEM  
3225 VALLEY RD  
SAN ANTONIO TX 78221-5201



40B	WQ0010137-040	01	13	11	12654
SYS	PERMIT NUMBER	SET	YEAR	MO.	EID

THIS REPORT TO BE USED FOR COMBINED MON 189 for 001/800/900 MEDIO CREEK

**SEE BACK FOR INSTRUCTIONS AND DEFINITIONS.**

PLEASE RETAIN A PHOTOCOPY FOR YOUR RECORDS.

TCEQ COPY

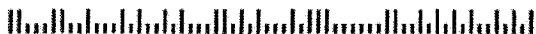
PARAMETER	EFFLUENT CONDITION			NO. EX.	FREQUENCY OF ANALYSIS	SAMPLE TYPE	
	REPORTED	VALUE	UNITS				
500507124 FLOW	REPORTED	8.39	MGD	0	02		11
DLY AVG	PERMITTED				02	CONT	11 CONT
500507128 FLOW	REPORTED	7.67	MGD	0	02		11
ANN AVG	PERMITTED				02	CONT	11 CONT
NUMBER OF OPERATOR CERTIFICATE	REPORTED	WW0004506	NUMBER	0	01		NA
	PERMITTED				01	01	NA NA
EXPIRATION OF OPERATOR CERTIFICATE	REPORTED	140108	DATE	0	01		NA
	PERMITTED				01	01	NA NA
CLASS OF OPERATOR CERTIFICATE	REPORTED	A	LETTER	0	01		NA
	PERMITTED				01	01	NA NA
	REPORTED						
	PERMITTED						
	REPORTED						
	PERMITTED						
	REPORTED						
	PERMITTED						
	REPORTED						
	PERMITTED						
	REPORTED						
	PERMITTED						

COMMENTS AND EXPLANATIONS *(Reference all attachments here)*

I CERTIFY THAT I AM FAMILIAR WITH THE INFORMATION CONTAINED IN THIS REPORT AND THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF SUCH INFORMATION IS TRUE AND COMPLETE AND ACCURATE.	NAME	SIGNATURE	DATE
	Daniel Rodriguez Manager-Prod & Treat Ops		11/3/12/10
TELEPHONE NUMBER	PLANT OPERATOR	PLANT OPERATOR	YEAR MO. DAY
210 233 3774	Steve Clouse Senior Vice President & COO		11/3/12/13
AREA CODE NUMBER	EXECUTIVE OFFICER	EXECUTIVE OFFICER	YEAR MO. DAY

# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

P.O. BOX 13087 • AUSTIN, TEXAS 78711-3087  
MONTHLY EFFLUENT REPORT



PAGE 1

SAN ANTONIO WATER SYSTEM  
3225 VALLEY RD  
SAN ANTONIO TX 78221-5201



40B	WQ0010137-040	01	13	11	12553
SYS	PERMIT NUMBER	SET	YEAR	MO.	EID

THIS REPORT TO BE USED FOR RECLAIMED WATER TYPE I 800

SEE BACK FOR INSTRUCTIONS AND DEFINITIONS.

PLEASE RETAIN A PHOTOCOPY FOR YOUR RECORDS.

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PARAMETER	EFFLUENT CONDITION		NO. EX.	FREQUENCY OF ANALYSIS		SAMPLE TYPE		
	REPORTED	PERMITTED		VALUE	UNITS			
000085342 TRANSFER DAYS/MON	REPORTED		26	DAY	0 01		01	
	PERMITTED				01	NA	01	NA
316164024 FEC. COLI DLY AVG	REPORTED		1.23	#/100 ML	0 08	1/Day	03	
	PERMITTED		20.000		11	2/WEEK	03	GRABPKLOAD
316164030 FEC. COLI IND GRAB	REPORTED		15.0	#/100 ML	0 08	1/Day	03	
	PERMITTED		75.000		11	2/WEEK	03	GRABPKLOAD
500507124 FLOW DLY AVG	REPORTED		1.18	MGD	0 02		11	
	PERMITTED				02	CONT	11	CONT
500507128 FLOW ANN AVG	REPORTED		1.33	MGD	0 02		11	
	PERMITTED				02	CONT	11	CONT
800821024 BOD CARB DLY AVG	REPORTED		2.08	MG/L	0 08	1/Day	10	12-prt-com
	PERMITTED		5.000		11	2/WEEK	03	GRABPKLOAD
820796624 TURBDITY 30DAYAVG	REPORTED		0.52	NTU	0 08	1/Day	10	12-prt-com
	PERMITTED		3.000		11	2/WEEK	03	GRABPKLOAD
NUMBER OF OPERATOR CERTIFICATE	REPORTED		WW0004506	NUMBER	0 01		NA	
	PERMITTED				01	01	NA	NA
EXPIRATION OF OPERATOR CERTIFICATE	REPORTED		140108	DATE	0 01		NA	
	PERMITTED				01	01	NA	NA
CLASS OF OPERATOR CERTIFICATE	REPORTED		A	LETTER	0 01		NA	
	PERMITTED				01	01	NA	NA
	REPORTED							
	PERMITTED							

COMMENTS AND EXPLANATIONS *(Reference all attachments here)*

I CERTIFY THAT I AM FAMILIAR WITH THE INFORMATION CONTAINED IN THIS REPORT AND THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF SUCH INFORMATION IS TRUE AND COMPLETE AND ACCURATE.

NAME  
Daniel Rodriguez  
Manager-Prod & Treat Ops

SIGNATURE  
*Daniel Rodriguez*

DATE  
11/3/12/10

TELEPHONE NUMBER

PLANT OPERATOR

PLANT OPERATOR

YEAR MO. DAY

210 233 3774

Steve Clouse  
Senior Vice President & COO

*Steve Clouse*

11/3/12/13

AREA CODE

NUMBER

EXECUTIVE OFFICER

EXECUTIVE OFFICER

YEAR MO. DAY



# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

P.O. BOX 13087 • AUSTIN, TEXAS 78711-3087

## MONTHLY EFFLUENT REPORT



PAGE 1

SAN ANTONIO WATER SYSTEM  
3225 VALLEY RD  
SAN ANTONIO TX 78221-5201



40B	WQ0010137-040	02	13	11	12554
SYS	PERMIT NUMBER	SET	YEAR	MO.	EID

THIS REPORT TO BE USED FOR RECLAIMED WATER TYPE II 900

**SEE BACK FOR INSTRUCTIONS AND DEFINITIONS.**

PLEASE RETAIN A PHOTOCOPY FOR YOUR RECORDS.

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PARAMETER	EFFLUENT CONDITION		NO. EX.	FREQUENCY OF ANALYSIS		SAMPLE TYPE	
	REPORTED	PERMITTED		VALUE	UNITS		
000085342 TRANSFER DAYS/MON	0		0	01		01	
316164024 FEC. COLI DLY AVG				01	NA	01	NA
316164030 FEC. COLI IND GRAB				14	1/WEEK	03	GRABPKLOAD
500507124 FLOW DLY AVG				02	CONT	11	CONT
500507128 FLOW ANN AVG				02	CONT	11	CONT
800821024 BOD CARB DLY AVG				14	1/WEEK	03	GRABPKLOAD
NUMBER OF OPERATOR CERTIFICATE	WW0004506		0	01		NA	
EXPIRATION OF OPERATOR CERTIFICATE	140108		0	01		NA	
CLASS OF OPERATOR CERTIFICATE	A		0	01		NA	
				01	01	NA	NA

COMMENTS AND EXPLANATIONS *(Reference all attachments here)*

I CERTIFY THAT I AM FAMILIAR WITH THE INFORMATION CONTAINED IN THIS REPORT AND THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF SUCH INFORMATION IS TRUE AND COMPLETE AND ACCURATE.

	NAME	SIGNATURE	DATE
	Daniel Rodriguez Manager-Prod & Treat Ops	<i>Daniel Rodriguez</i>	11/3/12/10
TELEPHONE NUMBER	PLANT OPERATOR	PLANT OPERATOR	YEAR MO. DAY
210 233 3774	Steve Clouse Senior Vice President & COO	<i>Steve Clouse</i>	11/3/12/13
AREA CODE	EXECUTIVE OFFICER	EXECUTIVE OFFICER	YEAR MO. DAY



**Bio-Aquatic Testing, Inc.**



TCEQ TNI Accredited

**San Antonio Water System  
Medio Creek WRC  
OUTFALL 001**

**48 Hr Acute Biomonitoring Report**

**55088**

*Daphnia pulex*  
*Pimephales promelas*

**November 05, 2013**

Approved by: *Chris Robason*  
*Chris Robason, President*

*Bio-Aquatic Testing, Inc. ♦ 2501 Mayes Rd. Ste. 100 ♦ Carrollton, Texas ♦ 75006*

## TABLE OF CONTENTS

TOXICITY TEST REPORT	3
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REFERENCE TOXICANTS	Appendix B
LITERATURE REFERENCES	Appendix C
CHAIN-OF-CUSTODY SHEETS	Appendix D
REGULATORY AGENCY TABLES	Appendix E

**Unless otherwise noted in the body of the report, all data reported in this document are in compliance with current TNI standards and apply only to the samples referenced within. This report document may not be edited or reproduced in part or in full by any other entity, unless Bio-Aquatic Testing, Inc. issues written approval.**

**\*HAND-WRITTEN RAW DATA TABLES ARE AVAILABLE UPON REQUEST**

**BIO-AQUATIC TESTING, INC.**

2501 Mayes Road, Suite 100

Carrollton, Texas 75006

Tel: (972) 242-7750

Fax: (972) 242-7749

**TOXICITY TEST REPORT - 48 Hr Acute**

---

Client: San Antonio Water System  
Facility: Medio Creek WRC  
Permit No. WQ0010137040

Sample: 001  
Laboratory Number: 55088  
Date: November 05, 2013

*Daphnia pulex* and *Pimephales promelas* **passed** survival testing requirements.

---

**SAMPLE COLLECTION:** Composite effluent samples from the San Antonio Water System, Medio Creek WRC, were received on November 05, 2013 and November 06, 2013. Effluent samples were collected from Outfall 001 by facility personnel.

The effluent samples were analyzed for total residual chlorine using the Hanna Ion Specific Meter #193711 and contained <0.10 mg/L and <0.10 mg/L, respectively. Effluent and laboratory dilution water pH, temperature, and dissolved oxygen data were collected daily.

**TEST PROCEDURES:**  
*Daphnia pulex*

**EPA METHOD:** 2021

The 48 Hr Acute *Daphnia pulex* test was initiated at 13:45 hours on November 05, 2013. Five effluent concentrations of 32%, 42%, 56%, 75%, and 100% were prepared utilizing synthetic water. The test was set up with 30mL plastic cups containing 20mL of test solution. Each concentration or control consisted of five replicate cups with eight organisms each, giving a total of 40 (forty) per treatment. The control was conducted concurrently with the test. Test organisms were less than 24-hour old laboratory cultured neonates. Organisms were introduced into the test solutions using a blocking design. Food consisting of a half-milliliter suspension of the green algae, *Selenastrum capricornutum*, and YTC was added to the test solutions each day. The test proceeded for 48 hours. Data on survival was collected daily and water quality parameters were recorded after each 24-hour period. The test was renewed daily with newly prepared solutions. The test ended at 13:30 hours on November 07, 2013. Survival data was statistically ( $p=0.05$ ) analyzed according to EPA procedures to determine the Lowest Observable Effect Concentration (LOEC) and the No Observable Effect Concentration (NOEC).

**SURVIVAL:**

*Daphnia pulex*

The *Daphnia pulex* survival data failed Shapiro Wilk's test for normality at the 0.01 (0.900) alpha level after the arc sine (square root (Y)) transformation. Bartlett's test for homogeneity is sensitive to non-normal data and should not be performed if data fails Shapiro Wilk's test. The non-parametric Steel's Many-One Rank test performed on *Daphnia pulex* survival data demonstrated no statistically significant differences between the control and any of the effluent concentrations tested.

**LOEC: Not Calculable (Q)**

**NOEC: 100% Effluent**

**TEST PROCEDURES:**

*Pimephales promelas*

**EPA METHOD: 2000**

The 48 Hr Acute *Pimephales promelas* test was initiated at 15:40 hours on November 05, 2013. Five effluent concentrations of 32%, 42%, 56%, 75%, and 100% were prepared utilizing synthetic water. The test was set up with 450mL plastic cups containing 250mL of test solution as test chambers. Each concentration or control consisted of five replicate chambers containing eight organisms each, giving a total of 40 (forty) per treatment. The control was conducted concurrently with the test. Test organisms were laboratory cultured *P. promelas* one to fourteen days old, and all larvae used in each test are hatched within 24 hours of each other. The number of surviving larvae and water quality parameters were recorded after each 24 hour period. The test was renewed daily with fresh solutions. Surviving larvae in each test chamber were fed freshly hatched brine shrimp two times per day. The test proceeded for 48 hours. The test ended at 11:47 hours on November 07, 2013. Survival was statistically (p=0.05) analyzed according to EPA procedures to determine the Lowest Observable Effect Concentration (LOEC) and the No Observable Effect Concentration (NOEC).

**SURVIVAL:**

*Pimephales promelas*

*Pimephales promelas* survival data failed Shapiro Wilk's test for normality at the 0.01 (0.900) alpha level after the arc sine (square root (Y)) transformation. Bartlett's test for homogeneity is sensitive to non-normal data and should not be performed if data fails Shapiro Wilk's test. The non-parametric Steel's Many-One Rank test performed on *Pimephales promelas* survival data demonstrated no statistically significant differences between the control and any of the effluent concentrations tested.

**LOEC: Not Calculable (Q)**

**NOEC: 100% Effluent**

# BIO-AQUATIC TESTING, INC.

## TOXICITY TEST

### 48 Hr Acute *Daphnia pulex*

Lab ID: 55088

Client: San Antonio Water System Medio Creek WRC

Test Temperature (oC): 25 ± 1

Permit Number: TPDES WQ0010137040

Photo Period: 16 hours light  
8 hours dark

Sample Type: Composite Outfall Name: 001

Begin Date: 11/5/2013

Receiving Water Name:

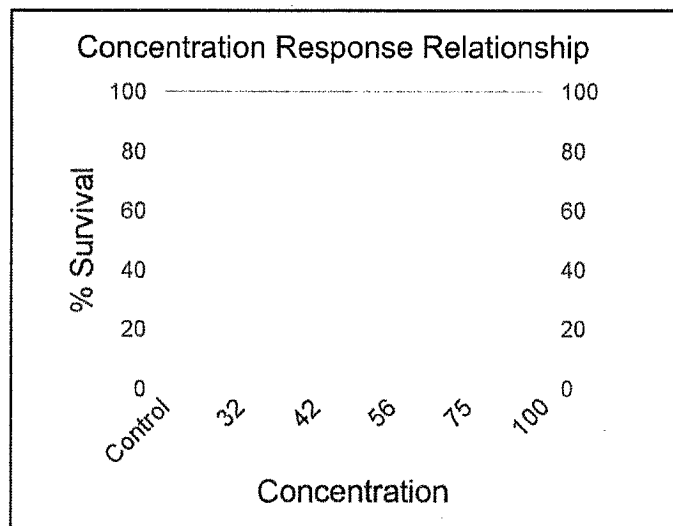
End Date: 11/7/2013

Test Start Time:  Test End Time:

### SURVIVAL

Effluent Con. %	Number Of Alive Per Replicate															Avg% Surv.
	11/5					11/6					11/7					
	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	
Control	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	100.0%
32	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	100.0%
42	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	100.0%
56	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	100.0%
75	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	100.0%
100	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	100.0%

\*spilled cup



BIO-AQUATIC TESTING, INC.

TOXICITY TEST

48 Hr Acute *Pimephales promelas*

Client: San Antonio Water System Medio Creek WRC

Lab ID: 55088

Permit Number: TPDES WQ0010137040

Test Temperature (oC): 25 ± 1

Sample Type: Composite Outfall Name: 001

Photo Period: 16 hours light  
8 hours dark

Receiving Water Name:

Begin Date: 11/5/2013

Test Start Time: 15:40

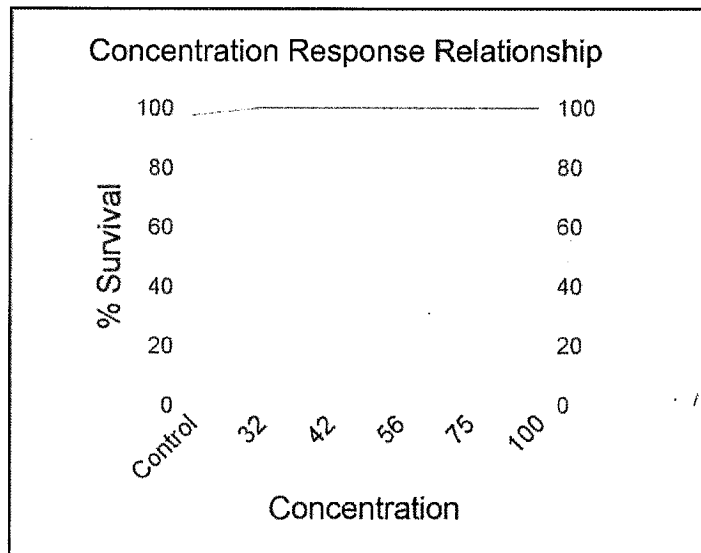
Test End Time: 11:47

End Date: 11/7/2013

SURVIVAL

Effluent Concentration %	Number Of Alive Per Replicate															Avg% Surv.
	11/5					11/6					11/7					
	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	
Control	8	8	8	8	8	7	8	8	8	8	7	8	8	8	8	97.5%
32	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	100.0%
42	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	100.0%
56	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	100.0%
75	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	100.0%
100	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	100.0%

\* cup spilled



## APPENDIX A

### STATISTICS SUMMARY

Both the lethal and sub-lethal endpoints were statistically calculated according to their respective EPA guidelines. The Chronic Freshwater organisms were calculated according to EPA-821-R-02-013, October 2002 Fourth Edition. The Chronic Marine and Estuarine organisms were calculated according to EPA-821-R-02-014, October 2002 Third Edition. The Acute Freshwater and Marine organisms were calculated according to EPA-821-R-02-012, October 2002 Fifth Edition. Listed below are the basic principles of these guidelines. If you would like a copy of the raw statistical calculations for your test then please contact us.

The chronic and acute *Pimephales promelas* and *Menidia beryllina* survival data is analyzed using Shipiro Wilks Test and Bartlett's Test. If the data passes both tests then the data is run through ANOVA and Dunnetts (parametric). If the data fails Shipiro Wilks Test or Bartlett's Test then Steels Many One Test (non-parametric) is used. The chronic *Pimephales promelas* and *Menidia beryllina* growth data is analyzed using Shipiro Wilks Test and Bartlett's Test. If the data passes one of these tests then the data is run through ANOVA and Dunnetts. If the data fails Shipiro Wilks Test and Bartlett's Test then Steels Many One Test is used.

The chronic *Mysidopsis bahia* survival data is analyzed using Chi-square test and Bartlett's Test. If the data passes both tests then the data is run through ANOVA and Dunnetts. If the data fails Chi-square test or Bartlett's Test then Steels Many One Test is used. *Mysidopsis bahia* growth data is analyzed using Chi-square test and Bartlett's Test. If the data passes one of these tests then the data is run through ANOVA and Dunnetts. If the data fails Chi-square test and Bartlett's Test then Steels Many One Test is used.

The acute *Mysidopsis bahia* survival data is analyzed using Shipiro Wilks Test and Bartlett's Test. If the data passes both tests then the data is run through ANOVA and Dunnetts. If the data fails Shipiro Wilks Test or Bartlett's Test then Steels Many One Test is used.

The chronic *Ceriodaphnia dubia* survival data are analyzed using the Fisher's Exact Test. The chronic *Ceriodaphnia dubia* reproduction and are analyzed using the Chi-square test and Bartlett Test. If the data passes one of these tests then the data is run through ANOVA and Dunnetts. If the data fails Chi-square test and Bartlett's Test then Steels Many One Test is used.

The acute *Daphnia pulex* and *Ceriodaphnia dubia* survival data is analyzed using Shipiro Wilks Test and Bartlett's Test. If the data passes both tests then the data is run through ANOVA and Dunnetts. If the data fails Shipiro Wilks Test or Bartlett's Test then Steels Many One Test is used.



55088

### Bio-Aquatic Testing, Inc.

2501 Mayes Road, Suite 100  
Carrollton, TX 75006  
Tel: 972-242-7750  
Fax: 972-242-7749

#### FRESH WATER TEST SETUP FORM

Client: San Antonio Water System

Permit WQ0010137040

Facility: Medio Creek WRC

Lab Number 55088

Outfall Name: 001

Number of samples 2

Dilution Water: Synthetic Lab

Receiving Water Name: \_\_\_\_\_

Dechlorinate Sample: No

Sx #	Rcvd Date	Rcvd Time	Sampling Dates		Sampling Times	
			Begin Date	End Date	Start	End
1	11/05/13	11:06	11/03/13	11/04/13	07:00	06:00
2	11/06/13	08:30	11/04/13	11/05/13	07:00	06:00

<i>Type of Test(s)</i>	
<u>Daphnia pulex</u>	<u>48 Hr Acute</u>
<u>Pimephales promelas</u>	<u>48 Hr Acute</u>

Start Sx # 1 Date: 11/5/2013  
 Renew Sx # 2 Date: 11/6/2013  
 Renew Sx # \_\_\_\_\_ Date: \_\_\_\_\_  
 Renew Sx # \_\_\_\_\_ Date: \_\_\_\_\_  
 Renew Sx # \_\_\_\_\_ Date: \_\_\_\_\_  
 Renew Sx # \_\_\_\_\_ Date: \_\_\_\_\_  
 Renew Sx # \_\_\_\_\_ Date: \_\_\_\_\_

Test Start Date: 11/5/2013 Test End Date: 11/7/2013

Controls: Synthetic

pH Match: \_\_\_\_\_

Hardness Match: \_\_\_\_\_

Daphnia pulex Test Set Up: 5 Reps & 8 Organisms per Rep

Pimephales Test Set Up: 5 Reps & 8 Organism per Rep

Concentrations: 32 42 56 75 100 % LF % 100

Test Chemistry on these dilutions: 32 42 56 75 100

Samples received by:

<input checked="" type="radio"/> Greyhound	<input type="radio"/> UPS Next Day	<input type="radio"/> Delta Dash	<input type="radio"/> Delta
<input type="radio"/> Pony Express	<input type="radio"/> Client Delivered	<input type="radio"/> Southwest Airlines	<input type="radio"/> DHL
<input type="radio"/> Federal Express	<input type="radio"/> American Airlines	<input type="radio"/> Bio Pick Up	

Other: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# BIO-AQUATIC TESTING, INC.

Hardness, Alkalinity, Residual Chlorine, Specific Conductivity, and Salinity Analysis Data

**Client:** San Antonio Water System

**Lab ID:** 55088

**Facility:** Medio Creek WRC

**Outfall:** 001

**Dilution Water(s):** Synthetic Lab

**Test Date:** November 5, 2013

\*\* 100 %

Effluent Sample #	Received		** Residual Cl <sub>2</sub>	DeChlor (ml/L)	** Ammonia mg/L	Analyst Initials	Initial Salinity	Adjusted Salinity	Temp. Received
	Date	Time							
1	11/5/13	11:06	<0.10	N/A	<0.25	JR	N/A	N/A	3.9
2	11/6/13	08:30	<0.10	N/A	<0.25	DF	N/A	N/A	3.9

**Chlorine Analysis Method:** Hanna Ion Specific Meter #193711      **Dechlorination Reagent:** 0.025 N Sodium Thiosulfate

Sample #	Received		Hardness (EDTA) As mg/L CaCO <sub>3</sub>		ALKALINITY TO END POINT pH 4.50 +/- 0.05 as mg/L CaCO <sub>3</sub>		Analyst Initials
	Date	Time	CON	100	CON	100	
	1	11/5/13	11:06	140.0	308.0	60.0	
2	11/6/13	08:30	140.0	76.0	60.0	294.0	PW/CH

Date	Lab	Sample #	Values are at Highest Dilution		Values are at 100% Dilution		Analyst	Other
			Specific Conductivity as umhos/cm	Salinity (ppt)	Residual Chlorine as mg Cl <sub>2</sub> /L	1 ml 0.02N Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> /L		
11/5	Lab H2O		441	0.3			AMC	
11/6	Lab H2O		453	0.3			DS	
11/7	Lab H2O						DP	
11/8	Lab H2O							
11/9	Lab H2O							
11/10	Lab H2O							
11/11	Lab H2O							
11/5	OUTFALL*	1	997	0.5	<0.10	N/A	AMC	
11/6	OUTFALL*	2	1044	0.6	<0.10	N/A	DS	
11/7	OUTFALL*						DP	
11/8	OUTFALL*							
11/9	OUTFALL*							
11/10	OUTFALL*							
11/11	OUTFALL*							

\*Conductivity is taken on the highest remaining effluent concentration used for test renewal, not necessarily 100%

# BIO-AQUATIC TESTING, INC.

pH, Dissolved Oxygen

48 Hr Acute

Daphnia pulex

Client: San Antonio Water System

Lab ID: 55088

Facility: Medio Creek WRC

Dilution Water(s): Synthetic Lab

Outfall: 001

Test Begin Date: November 5, 2013

NR indicates that the test is non-renewal.

ANALYST	DATE	TIME	SX#	UNIT	Concentration							
					Control	32	42	56	75	100		
AMC	11/5	Start	1	pH	7.8	7.8	7.8	7.8	7.7	7.7		
		25 ± 1		DO (mg/L)	8.2	8.0	8.2	8.4	8.4	8.5		
DS	11/6	24 Hr	1	pH	8.0	7.9	7.9	7.8	7.9	7.9		
		25 ± 1		DO (mg/L)	8.7	8.7	8.7	8.6	8.7	8.7		
		Renew	2	pH	8.0	8.0	8.0	8.0	8.0	7.9		
				DO (mg/L)	8.4	8.4	8.2	8.0	8.1	8.2		
DP	11/7	48 Hr	2	pH	7.7	7.6	7.6	7.8	7.8	7.9		
		25 ± 1		DO (mg/L)	8.1	8.1	8.1	8.1	8.1	8.0		
	11/8	Renew		pH								
		72 Hr		DO (mg/L)								
	11/8	25 ± 1		pH								
		Renew		DO (mg/L)								
	11/9	96 Hr		pH								
		25 ± 1		DO (mg/L)								
	11/10	Renew		pH								
		120 Hr		DO (mg/L)								
	11/11	25 ± 1		pH								
		Renew		DO (mg/L)								
	11/12	144 Hr		pH								
		25 ± 1		DO (mg/L)								
	11/12	Renew		pH								
		168 Hr		DO (mg/L)								
		25 ± 1		pH								
				DO (mg/L)								

# BIO-AQUATIC TESTING, INC.

pH, Dissolved Oxygen

48 Hr Acute

Pimephales promelas

Client: San Antonio Water System

Lab Number: 55088

Facility: Medio Creek WRC

Dilution Water(s): Synthetic Lab

Outfall: 001

Test Begin Date: November 5, 2013

NR indicates that the test is non-renewal.

ANALYST	DATE	TIME	SX#	UNIT	Concentration							
					Control	32	42	56	75	100		
AMC	11/5	Start	1	pH	7.8	7.8	7.8	7.8	7.7	7.7		
		25 ± 1		DO (mg/L)	8.2	8.0	8.2	8.4	8.4	8.5		
DS	11/6	24 Hr	1	pH	8.1	8.0	7.9	7.8	7.9	8.0		
		25 ± 1		DO (mg/L)	8.7	8.6	8.6	8.6	8.4	8.3		
		Renew	2	pH	8.0	8.0	8.0	8.0	8.0	7.9		
				DO (mg/L)	8.4	8.4	8.2	8.0	8.1	8.2		
DP	11/7	48 Hr	2	pH	7.6	7.6	7.7	7.7	7.8	7.9		
		25 ± 1		DO (mg/L)	8.4	8.3	8.3	8.3	8.4	8.4		
		Renew		pH								
				DO (mg/L)								
	11/8	72 Hr		pH								
		25 ± 1		DO (mg/L)								
		Renew		pH								
				DO (mg/L)								
	11/9	96 Hr		pH								
		25 ± 1		DO (mg/L)								
		Renew		pH								
				DO (mg/L)								
	11/10	120 Hr		pH								
		25 ± 1		DO (mg/L)								
		Renew		pH								
				DO (mg/L)								
	11/11	144 Hr		pH								
		25 ± 1		DO (mg/L)								
		Renew		pH								
				DO (mg/L)								
	11/12	168 Hr		pH								
		25 ± 1		DO (mg/L)								

# Appendix B

*Daphnia pulex*

## BIO-AQUATIC TESTING, INC.

Carrollton, TX

### REFERENCE TOXICANTS

Bio-Aquatic Testing conducts reference toxicant testing monthly for organisms cultured in-house. For studies requiring purchased organisms, reference toxicant testing is performed simultaneously. Reference toxicant testing validates data and measures organism consistency. Only reagent grade chemicals are used of the following choices: sodium laurel sulfate (SLS), copper sulfate, copper chloride, potassium chloride, and sodium chloride. Organism responses are tracked with control charts for each reference toxicant/organism combination. The data are examined for sensitivity trends and to determine if results are within EPA described limits.

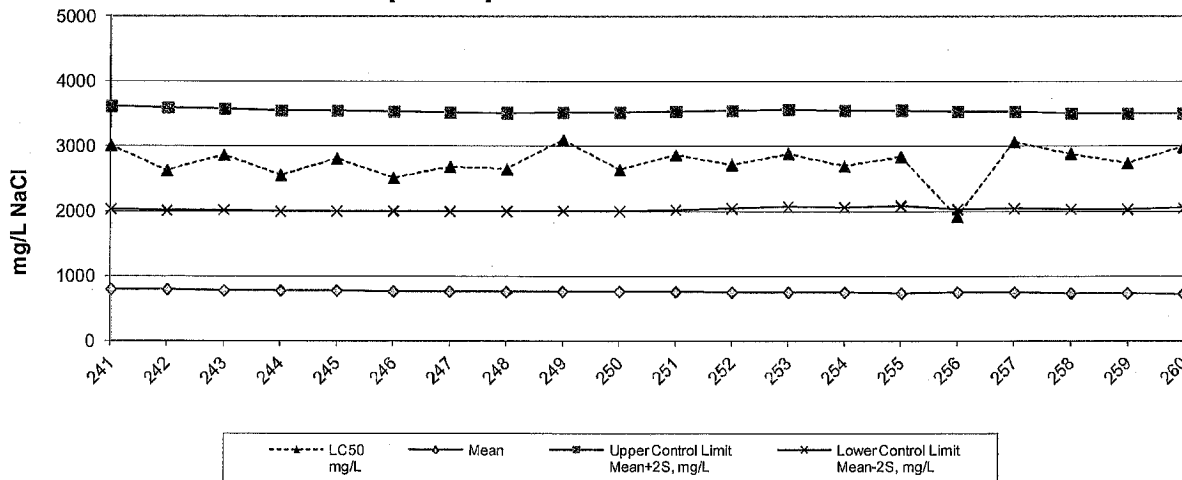
### ACUTE REFERENCE TOXICANT TEST RESULTS

DILUTION WATER:	Standard Synthetic Freshwater
CHEMICAL:	Sodium Chloride
DURATION:	48 Hour Acute
TEST NUMBER:	260
PROJECT NUMBER:	54924
START DATE:	9/24/2013
START TIME:	11:15
TOTAL NUMBER EXPOSED:	40 organisms per concentration
CONCENTRATIONS (mg/L):	CON 250 500 1000 2000 3000 4000
NUMBER DEAD PER CONCENTRATION:	0 0 0 0 0 17 40
TEST METHODS:	As listed in EPA-821-R-02-012
STATISTICAL METHODS:	SURVIVAL: Trimmed Spearman-Kärber
LC50:	2989.66 mg/L
95% LOWER CONFIDENCE LIMITS:	2832.00 mg/L
95% UPPER CONFIDENCE LIMITS:	3156.10 mg/L

**REFERENCE TOXICANT STATISTICAL RESULTS: LC<sub>50</sub> AND CONTROL LIMITS**  
***Daphnia pulex* EXPOSED TO SODIUM CHLORIDE, 48 HOUR STATIC RENEWAL**

Test Number	Date	Project Number	Toxicant Lot Number	Statistical Method	LC <sub>50</sub> mg/L	Mean	Twice Standard Deviation 2S	Upper Control Limit Mean+2S, mg/L	Lower Control Limit Mean-2S, mg/L
241	1/18/2012	50765	023007	Trimmed Spearman-Kärber	3015.7	2822.9	791.2	3614.1	2031.8
242	2/22/2012	50855	023007	Trimmed Spearman-Kärber	2625.3	2801.6	790.1	3591.7	2011.5
243	3/28/2012	50950	023007	Trimmed Spearman-Kärber	2871.6	2797.4	776.9	3574.2	2020.5
244	4/24/2012	51028	023007	Trimmed Spearman-Kärber	2557.9	2771.7	775.0	3546.7	1996.7
245	5/29/2012	51138	023007	Trimmed Spearman-Kärber	2813.7	2773.9	772.6	3546.5	2001.4
246	6/26/2012	51226	134905	Trimmed Spearman-Kärber	2506.6	2768.5	766.1	3534.6	2002.4
247	7/31/2012	51361	134905	Trimmed Spearman-Kärber	2686.5	2761.2	763.6	3524.8	1997.5
248	8/28/2012	51424	134905	Trimmed Spearman-Kärber	2648.1	2756.5	757.3	3513.8	1999.2
249	9/25/2012	51610	134905	Trimmed Spearman-Kärber	3095.1	2764.8	759.3	3524.0	2005.5
250	11/27/2012	52179	134905	Trimmed Spearman-Kärber	2644.3	2759.3	758.5	3517.8	2000.8
251	12/27/2012	53579	134905	Trimmed Spearman-Kärber	2862.9	2778.1	757.8	3535.8	2020.3
252	1/30/2013	53775	134905	Trimmed Spearman-Kärber	2717.9	2799.1	751.7	3550.8	2047.3
253	2/27/2013	53841	221401	Trimmed Spearman-Kärber	2887.8	2818.8	749.3	3568.1	2069.6
254	3/26/2013	53920	221401	Trimmed Spearman-Kärber	2694.4	2808.9	745.5	3554.4	2063.4
255	5/3/2013	54051	221401	Trimmed Spearman-Kärber	2838.2	2818.6	737.2	3555.8	2081.4
256	5/28/2013	54110	221401	Trimmed Spearman-Kärber	1913.0	2783.1	750.3	3533.3	2032.8
257	6/24/2013	54180	221401	Trimmed Spearman-Kärber	3068.4	2792.4	747.7	3540.2	2044.7
258	7/30/2013	54296	2012122817	Trimmed Spearman-Kärber	2887.8	2772.4	738.0	3510.4	2034.3
259	8/27/2013	54348	2012122817	Trimmed Spearman-Kärber	2741.5	2766.6	735.2	3501.8	2031.4
260	9/24/2013	54924	300720	Trimmed Spearman-Kärber	2989.7	2778.4	727.7	3506.1	2050.7

**Daphnia pulex Acute Control Chart**



# Appendix B

*Pimephales promelas*

## BIO-AQUATIC TESTING, INC.

Carrollton, TX

### REFERENCE TOXICANTS

Bio-Aquatic Testing conducts reference toxicant testing monthly for organisms cultured in-house. For studies requiring purchased organisms, reference toxicant testing is performed simultaneously. Reference toxicant testing validates data and measures organism consistency. Only reagent grade chemicals are used of the following choices: sodium laurel sulfate (SLS), copper sulfate, copper chloride, potassium chloride, and sodium chloride. Organism responses are tracked with control charts for each reference toxicant/organism combination. The data are examined for sensitivity trends and to determine if results are within EPA described limits.

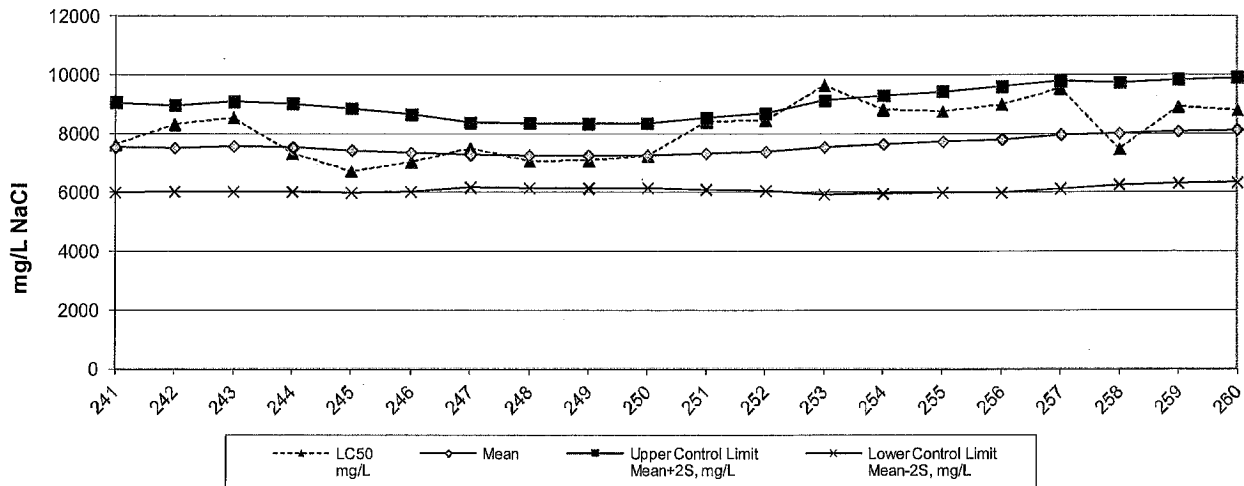
### ACUTE REFERENCE TOXICANT TEST RESULTS

DILUTION WATER:	Standard Synthetic Freshwater
CHEMICAL:	Sodium Chloride
DURATION:	48 Hour Acute
TEST NUMBER:	260
PROJECT NUMBER:	54923
START DATE:	9/25/2013
START TIME:	16:09
TOTAL NUMBER EXPOSED:	40 organisms per concentration
CONCENTRATIONS (mg/L):	CON 2000 4000 6000 8000 10000 12000
NUMBER DEAD PER CONCENTRATION:	0 0 0 0 5 37 40
TEST METHODS:	As listed in EPA-821-R-02-012
STATISTICAL METHODS:	SURVIVAL: Trimmed Spearman-Kärber
LC50:	8795.95 mg/L
95% LOWER CONFIDENCE LIMITS:	8522.33 mg/L
95% UPPER CONFIDENCE LIMITS:	9078.36 mg/L

**REFERENCE TOXICANT STATISTICAL RESULTS: LC<sub>50</sub> AND CONTROL LIMITS**  
***Pimephales promelas* EXPOSED TO SODIUM CHLORIDE, 48 HOUR STATIC RENEWAL**

Test Number	Date	Project Number	Toxicant Lot Number	Statistical Method	LC <sub>50</sub> mg/L	Mean	Twice Standard Deviation 2S	Upper Control Limit Mean+2S, mg/L	Lower Control Limit Mean-2S, mg/L
241	2/23/2012	50858	023007	Trimmed Spearman-Kärber	7625.5	7523.3	1530.3	9053.6	5993.0
242	3/28/2012	50953	023007	Trimmed Spearman-Kärber	8315.7	7500.3	1463.6	8963.9	6036.7
243	4/24/2012	51029	023007	Trimmed Spearman-Kärber	8542.0	7566.2	1528.5	9094.7	6037.7
244	5/29/2012	51139	023007	Trimmed Spearman-Kärber	7334.7	7522.2	1500.3	9022.4	6021.9
245	6/26/2012	51227	134905	Trimmed Spearman-Kärber	6732.0	7423.2	1429.4	8852.5	5993.8
246	7/31/2012	51362	134905	Trimmed Spearman-Kärber	7048.6	7343.2	1315.3	8658.6	6027.9
247	8/28/2012	51423	134905	Trimmed Spearman-Kärber	7498.9	7273.3	1098.3	8371.6	6175.0
248	9/25/2012	51611	134905	Trimmed Spearman-Kärber	7081.2	7260.6	1101.1	8361.8	6159.5
249	10/31/2012	51787	134905	Trimmed Spearman-Kärber	7082.2	7244.1	1101.4	8345.6	6142.7
250	11/28/2012	52178	134905	Trimmed Spearman-Kärber	7248.8	7253.6	1098.0	8351.6	6155.6
251	12/27/2012	53578	134905	Trimmed Spearman-Kärber	8411.5	7317.2	1211.6	8528.8	6105.6
252	1/30/2013	53774	134905	Trimmed Spearman-Kärber	8457.2	7379.0	1312.9	8691.9	6066.1
253	2/27/2013	53840	221401	Trimmed Spearman-Kärber	9652.3	7536.5	1595.5	9132.0	5940.9
254	3/26/2013	53919	221401	Trimmed Spearman-Kärber	8819.2	7633.7	1661.4	9295.0	5972.3
255	5/3/2013	54050	221401	Trimmed Spearman-Kärber	8761.3	7715.1	1716.7	9431.8	5998.3
256	5/28/2013	54109	221401	Trimmed Spearman-Kärber	8987.9	7798.7	1795.9	9594.6	6002.8
257	6/25/2013	54198	221401	Trimmed Spearman-Kärber	9540.9	7957.3	1824.1	9781.4	6133.2
258	7/31/2013	54295	2012122817	Trimmed Spearman-Kärber	7473.9	7998.4	1735.2	9733.6	6263.2
259	8/27/2013	54347	2012122817	Trimmed Spearman-Kärber	8907.2	8072.0	1759.4	9831.4	6312.6
260	9/25/2013	54923	300720	Trimmed Spearman-Kärber	8796.0	8115.8	1786.8	9902.6	6329.0

**Pimephales promelas Acute Control Chart**





## APPENDIX C

### LITERATURE REFERENCES

- U.S.E.P.A., 2002. Short-Term Methods For Estimating The Chronic Toxicity Of Effluents And Receiving Water To Freshwater Organisms (Fifth Edition) U.S. Environmental Protection Agency, Office of Water, Washington D.C., EPA-821-R-02-012.
- U.S.E.P.A., 2002. Short-Term Methods For Estimating The Chronic Toxicity Of Effluents and Receiving Water To Marine And Estuarine Organisms (Third Edition) U.S. Environmental Protection Agency, Office of Water, Washington D.C., EPA-821-R-02-014.
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# **CHAIN-OF-CUSTODY SHEETS**

Appendix D



**BIO-AQUATIC TESTING, INC.**  
 2501 MAYES RD., STE. 100  
 CARROLLTON, TX 75006  
 PH: 972-242-7750 FAX: 972-242-7749

**Client:** San Antonio, City of  
**Facility:** Medio Creek WWTP  
**Permit No:** WQ0010137040  
**Outfall:** 001  
**Client Contact:** ANNA RAMOS  
**Client Phone:** 210-233-3210

**A. REVIEW SCHEDULED TEST(S):**  
 48 Hr Acute  Daphnia pulex  
 48 Hr Acute  Pimephales promelas

**Concentration:** 32 42 56 75 100  
 (For TX) Setup separate 24hr Acute Test?  No

To Ship the  
 1st Sample on:  
 10/21/2013

**CHAIN OF CUSTODY**  No Sample Left **Lab Id** 55088  
 Please Review & Complete Sections A, B, C, & D. **Sample No.:** 55088  
**Check Sample No.:** First, Second, or Third. **P.O. No.:**

**B. Use area below to make changes, if the Scheduled Test(s) in "A" are incorrect:**

Freshwater Species		Saltwater Species	
<input type="checkbox"/> <i>C. dubia</i> (water flea)	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	<input type="checkbox"/> <i>D. magna</i> (water flea)	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour
<input type="checkbox"/> <i>D. pulex</i> (water flea)	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	<input type="checkbox"/> <i>P. promelas</i> (minnow)	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour
<input type="checkbox"/> <i>Selenastrum</i> (green algae)	<input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	<input type="checkbox"/> <i>M. beryllina</i> (minnow)	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour
<input type="checkbox"/> <i>Mysidopsis</i> (shrimp)	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour		

Notes: 4th Quarter Acute Pulex/Triad (BG)

**C.**

Sample ID or Location: (Outfall No. or Name)	Sample Type: E = Effluent W = Water S = Sediment	Sample Date		Grab or Composite	Sampled By: (Sign and Print Name)	Number of Containers Shipped
		From	To			
1 001	E	11-03-13	11-04-13	0600 C	Michael Roche	1
2						
3						

**D.**

Relinquished By:	Date	Time	Received By:	Date	Time
Michael Roche	11-04-13	0822	[Signature]	11/9/13	0800
			[Signature]	11-5-13	1106

**Bio-Aquatic Sample Login**

BAT sample personnel:  Yes  No

Check for Ammonia:  Yes  No

Dechlorinate Sample:  Yes  No

Dilution Water:  Receiving Stream  Synthetic Lab

Date: 11-5-13 Time: 1106 By: [Signature]

Temperature: 3.9 (C) Int. Salinity: ppt

Chlorine: 6.1 mg/l Ammonia: 0.05 Other: ppt

pH: 7.8 DO: 9.9 mg/l Condition: Good



**BIO-AQUATIC TESTING, INC.**  
 2501 MAYES RD., STE. 100  
 CARROLLTON, TX 75006  
 PH: 972-242-7750 FAX: 972-242-7749

**Client:** San Antonio, City of  
**Facility:** Medio Creek WWTP  
**Permit No:** WQ0010137040  
**Outfall:** 001  
**Client Contact:** ANNA RAMOS  
**Client Phone:** 210-233-3210

**A REVIEW SCHEDULED TEST(S):**  
 48 Hr Acute: Daphnia pulex  
 48 Hr Acute: Pimephales promelas  
 Concentration: 32 42 56 75 100  
 To Ship the 1st Sample on: 10/21/2013

(For TX) Setup separate 24hr Acute Test?  No

**CHAIN OF CUSTODY**  Bio Only, No Sample Left  
 Lab Id: **55088**  
 Please Review & Complete Sections A, B, C, & D. Sample No: **55088**  
 Check Sample No.: First, Second, or Third. P.O. No:

**B** Use area below to make changes, if the Scheduled Test(s) in "A" are incorrect:

Freshwater Species		Saltwater Species	
C. dubia (water flea)	D. pulex (water flea)	D. magna (water flea)	P. promelas (minnow)
<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour
		Selenastrum (green algae)	M. benyline (minnow)
			Mystidopsis (shrimp)

Notes: 4th Quarter Acute Pulex/Pimephal (BG)

Sample ID or Location: (Outfall No. or Name)	Sample Type: E = Effluent RS = Rec. Stream S = Sediment	Sample Date		Grab or Composite	Sampled By: (Sign and Print Name)	Number Of Containers Shipped
		From	To			
1 001	E	11-04-13	11-05-13	0600 C	Julio Lopez	1
2						
3						

Relinquished By:	Date	Time	Received By:		Date	Time
			Signature	Signature		
Julio Lopez	11/5/13		[Signature]	[Signature]	11/5/13	0857
			[Signature]	[Signature]	11/6/13	0830

**Bio-Aquatic Sample Login**

BAT sample personnel:  Yes  No

Check for Ammonia:  Yes  No

Dechlorinate Sample:  Yes  No

Dilution Water:  Receiving Stream  Synthetic Lab

Date: 11/6 Time: 0915 By: W

Temperature: 3.9 (C) IR#: 11 Int. Salinity: ppt Adj. Salinity: ppt

Chlorine: 0.25 mg/l Ammonia: 0.25 mg/l Other: [Signature]

pH: 7.7 DO: 9.4 mg/l Condition: Good

# **REGULATORY AGENCY TABLES**

## Appendix E

Table 1 (Sheet 1 of 2 )  
BIOMONITORING REPORT

*Daphnia pulex* SURVIVAL TEST

Permittee: San Antonio Water System - Medio Creek WRC  
 Permit No.: WQ0010137040  
 Outfall No.: 001

Dates and times FROM: 11/3/2013 @07:00 TO: 11/4/2013@ 06:00  
 Composites were collected: FROM: 11/4/2013 @07:00 TO: 11/5/2013@ 06:00

Test Initiation: Time: 13:45 Date: 11/5/2013

Dilution Water Used:  Receiving Water  Synthetic Dilution Water

DATA TABLE FOR SURVIVAL OF *Daphnia pulex*

TIME	REPLICATE	EFFLUENT CONCENTRATION (%)					
		0%	32 %	42 %	56 %	75 %	100 %
24 HOUR	A	100	100	100	100	100	100
	B	100	100	100	100	100	100
	C	100	100	100	100	100	100
	D	100	100	100	100	100	100
	E	100	100	100	100	100	100
48 HOUR	A	100	100	100	100	100	100
	B	100	100	100	100	100	100
	C	100	100	100	100	100	100
	D	100	100	100	100	100	100
	E	100	100	100	100	100	100
MEAN		100	100	100	100	100	100
CV % <sup>1</sup>		0.00	0.00	0.00	0.00	0.00	0.00

<sup>1</sup> Coefficient of Variation = (standard deviation/mean) x 100

?= cannot be calculated due to 100% mortality or lab exception

DUNNETT'S PROCEDURE OR STEEL'S MANY-ONE RANK TEST (as appropriate for Lethality)

Is the mean survival at 48 hours significantly different (p=0.05) than the control's survival for the low flow or critical dilution?

CRITICAL DILUTION ( 100 % ): \_\_\_\_\_ YES \_\_\_\_\_ X \_\_\_\_\_ NO

If you report NO, enter a '0' on the DMR form for Parameter No. TEM3D, other wise enter a '1'.

Enter the percent effluent corresponding to each NOEC below:

NOEC SURVIVAL: 100 % Effluent (Parameter TOM3D)

LOEC SURVIVAL: Q\* % Effluent (Parameter TXM3D)

Q\* refers to a value that is not calculable

Table 1 (Sheet 2 of 2 )  
 BIOMONITORING REPORT

*Pimephales promelas* SURVIVAL TEST

Permittee: San Antonio Water System - Medio Creek WRC  
 Permit No.: WQ0010137040  
 Outfall No.: 001

Dates and times FROM: 11/3/2013 @07:00 TO: 11/4/2013@06:00  
 Composites were collected: FROM: 11/4/2013 @07:00 TO: 11/5/2013@06:00

Test Initiation: Time: 15:40 Date: 11/5/2013

Dilution Water Used:  Receiving Water  Synthetic Dilution Water

DATA TABLE FOR SURVIVAL OF *Pimephales promelas*

TIME	REPLICATE	EFFLUENT CONCENTRATION (%)					
		0%	32 %	42 %	56 %	75 %	100 %
24 HOUR	A	87.5	100	100	100	100	100
	B	100	100	100	100	100	100
	C	100	100	100	100	100	100
	D	100	100	100	100	100	100
	E	100	100	100	100	100	100
48 HOUR	A	87.5	100	100	100	100	100
	B	100	100	100	100	100	100
	C	100	100	100	100	100	100
	D	100	100	100	100	100	100
	E	100	100	100	100	100	100
MEAN		97.5	100	100	100	100	100
CV % <sup>1</sup>		5.73	0.00	0.00	0.00	0.00	0.00

<sup>1</sup> Coefficient of Variation = (standard deviation/mean) x 100)

?= cannot be calculated due to 100% mortality or lab exception

DUNNETT'S PROCEDURE OR STEEL'S MANY-ONE RANK TEST (as appropriate for Lethality)  
 Is the mean survival at 48 hours significantly different (p=0.05) than the control's survival for the low flow or critical dilution?

CRITICAL DILUTION ( 100 % ): \_\_\_\_\_ YES \_\_\_\_\_ X \_\_\_\_\_ NO

If you report NO, enter a '0' on the DMR form for Parameter No. TEM6C, other wise enter a '1'.

Enter the percent effluent corresponding to each NOEC below:

NOEC SURVIVAL: 100 % Effluent (Parameter TOM6C)

LOEC SURVIVAL: Q\* % Effluent (Parameter TXM6C)

Q\* refers to a value that is not calculable



### Report Revision Form

Report Revision Number 0 for Lab ID 55088 was revised on 12/2/2013.

The revision was issued for the following reason(s):

- Typo in the report document or tables
- Missing sheets or tables
- Hard data was not scanned in as required by the client
- Missing specially requested forms or data for the client
- Other (Please Specify):

Client and facility names revised to reflect client's permit.