

# SURFACE WATER MONTHLY OPERATING REPORT

FOR PUBLIC WATER SYSTEMS THAT ARE USING SURFACE WATER SOURCES  
OR GROUND WATER SOURCES UNDER THE INFLUENCE OF SURFACE WATER

Summary Page

# COPY

<b>PUBLIC WATER SYSTEM NAME:</b> <u>Webb County Water Utility</u>	<b>PLANT NAME OR NUMBER:</b> <u>Rio Bravo</u>
I certify that I am familiar with the information contained in this report and that, to the best of my knowledge, the information is true, complete, and accurate.	
<b>PWS ID No.:</b> <u>2400022</u>	Operator's Signature: <u></u>
<b>Plant ID No.:</b> <u>20831</u>	<b>Certificate No. &amp; Grade:</b> <u>WS0009456, C</u>
<b>Report for the Month of:</b> <u>January 2016</u>	<b>Date:</b> <u>February 10, 2016</u>

TREATMENT PLANT PERFORMANCE							
Total number of turbidity readings:	107	Number of 4-hour periods when plant was off-line:	79				
Number of readings above 0.10 NTU:	46	Number of 4-hour periods when plant was on-line but turbidity data was not collected:	0				
Number of readings above 0.3 NTU:	0	Number of days when plant was on-line but individual filter turbidity data was not collected:	0				
Number of readings above 0.5 NTU:	0	Number of days with readings above 1.0 NTU:	0 (2)				
Number of readings above 1.0 NTU:	0	Number of days with readings above 5.0 NTU:	0 (3)				
Maximum allowable turbidity level:	0.3						
Percentage of readings above this limit:	0.0 % (1)						
Statistical Summary	Maximum turbidity reading:	0.22 NTU	Average turbidity value:	0.10 NTU			
	Minimum turbidity reading:	0.04 NTU	Standard deviation:	0.043 NTU			
	CFE 95 <sup>th</sup> percentile value:	0.18 NTU	IFE 95 <sup>th</sup> percentile:	0.248 NTU			
Bin Class:	2	Crypto Credit Required:	4.0 (7A)	Crypto Credit Achieved:	0.0 (7B)	Bin 3&4 Credits:	0.0 (7C)
Watershed Protection:	0.0	Conventional Treatment:	3.0	Second Stage Filtration:	0.0		
Bank Filtration:	0.0	Enhanced Filter Performance:	0.0	UV:	0.0		
Presedimentation with Coagulation:	0.0	Bag and Cartridge Filtration:	0.0	Ozone, Chlorine Dioxide:	0.0		
Two-Stage Lime Softening:	0.0	Membrane Filtration:	0.0	Perform. Demonstration:	0.0		
Number of days with a low CT for no more than 4.0 consecutive hours:	0	Average log inactivation for Giardia:	1.39	Average log inactivation for viruses:	34.38		
Number of days with a low CT for more than 4.0 consecutive hours:	0 (4)	Number of days when profiling data was not collected:	0	Number of days when CT data was not collected:	0		
Minimum disinfectant residual required leaving the plant:	0.5 mg/L, measured as Total Chlorine						
Number of days with a low residual for no more than 4.0 consecutive hours:	0						
Number of days with a low residual for more than 4.0 consecutive hours:	0 (5)	Number of days when disinfectant residual leaving the plant was not properly monitored:	0				

DISTRIBUTION SYSTEM			
Minimum disinfectant residual required in distribution system: 0.5 mg/L, measured as Total Chlorine			
Total number of readings this month:	43	(at least 31 required) (8)	
Average disinfectant residual value:	1.62	Percentage of readings with a low residual this month:	0.0 % (6A)
Number of readings with a low residual:	0		
Number of readings with no detectable residual:	0	Percentage of readings with a low residual last month:	0.0 % (6B)

ADDITIONAL REPORTS & WORKSHEETS	
The Page 1 Addendum (Public Notices) is required because there was at least one treatment technique or monitoring/reporting violation reported.	
Additional report(s) for individual filter monitoring required:	<input checked="" type="radio"/> NONE <input type="radio"/> Filter Profile <input type="radio"/> Filter Assessment <input type="radio"/> CPE
Additional report(s) for individual filter monitoring submitted:	<input checked="" type="radio"/> NONE <input type="radio"/> Filter Profile (9) <input type="radio"/> Filter Assessment (10) <input type="radio"/> CPE (11)
No additional IFE Reports are required this month.	
P.2-Turbidity Data	P.3-Filter Data
P.4&5-Disinfection Data	P.6-TOCMOR
P.7-TOC ACC	
Alternate Technol.	

**SURFACE WATER MONTHLY OPERATING REPORT**  
 TEXAS COMMISSION ON ENVIRONMENTAL QUALITY  
 WATER SUPPLY DIVISION/PUBLIC DRINKING WATER SECTION (MC-155)  
 P.O. BOX 13087, AUSTIN, TEXAS 78711-3087

# SURFACE WATER MONTHLY OPERATING REPORT

FOR PUBLIC WATER SYSTEMS THAT ARE USING SURFACE WATER SOURCES  
OR GROUND WATER SOURCES UNDER THE INFLUENCE OF SURFACE WATER (cont.)  
Summary Page Addendum (Violations and Public Notices)

PUBLIC WATER SYSTEM NAME: Webb County Water Utility

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022

Plant ID No.: 20831

Month: January

Year: 2016

PUBLIC NOTICES						
VIOLATION TYPE	DESCRIPTION OF VIOLATION	VIOLATION OCCURRED?	NOTICE TO TCEQ <input type="checkbox"/>	NOTICE TO CUSTOMER *		VIOLATION DATES
			DATE OF NOTICE	DATE OF NOTICE	PENDING	
TREATMENT TECHNIQUE	Were more than 5.0% of the turbidity readings above the acceptable level? - see (1) on the Summary Page	No				
	Were there any days with turbidity readings above 1.0 NTU? - see (2) on the Summary Page	No				
	Were there any days with turbidity readings above 5.0 NTU? - see (3) on the Summary Page	No				
	Were there any periods when the plant failed to meet the CT requirements for more than 4.0 consecutive hours? - see (4) on the Summary Page	No				
	Were there any periods when the residuals leaving the plant fell below the acceptable level for more than 4.0 consecutive hours? - see (5) on the Summary Page	No				
	Were more than 5.0% of the residuals in the distribution system below the acceptable level for two months in a row? - see (6A) and (6B) on the Summary Page	No				
	Was Cryptosporidium removal credit less than required based on Bin Classification? - see (7A), (7B), and (7C) on the Summary Page	Yes				1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31
MONITORING & REPORTING	Were there any days when the plant failed to report all of the required Combined Filter Effluent (CFE) turbidity readings? - see the Turbidity Data Page	No				
	Were there any days when the plant failed to report all the CT data needed to evaluate the level of microbial inactivation achieved? - see the Disinfection Data Page	No				
	Were there any days when the plant failed to report the minimum disinfectant residual entering the distribution system? - see the Turbidity Data Page	No				
	Did the system fail to collect enough samples in the distribution system to meet the minimum disinfectant monitoring requirements? - see (8) on the Summary Page	No				
	Were there any days when the plant failed to report the maximum individual filter effluent (IFE) turbidity level produced by each filter? - see the Filter Data Page	No				
	Were there any days when the plant failed to report the IFE turbidity level 4-hours after beginning a filter run? - see the Filter Data Page	Not Applicable				
	Did the plant fail to submit a Filter Profile Report if one was required? - see (9) on the Summary page	No				
	Did the plant fail to submit a Filter Assessment Report if one was required? - see (10) on the Summary Page	No				
	Did the plant fail to submit a Comprehensive Performance Evaluation Request if one was required? - see (11) on the Summary Page	No				
Did the plant fail to collect at least one Total Organic Carbon sample set? - see TOCMOR Page	No					

Treatment technique violation notices are due no later than the end of the next business day. Please include a copy if possible.  
\* Copies of each Public Notice must accompany this report if they have already been issued.

SUBMITTED BY: TOMAS SANCHEZ JR.

Certificate No. and Grade: WS0009456, C

Date: February 10, 2016

**SURFACE WATER MONTHLY OPERATING REPORT**  
 FOR PUBLIC WATER SYSTEMS THAT ARE USING SURFACE WATER SOURCES  
 OR GROUND WATER SOURCES UNDER THE INFLUENCE OF SURFACE WATER (cont.)  
 Summary Page Addendum (Violations and Public Notices)

PUBLIC WATER SYSTEM NAME: Webb County Water Utility

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022 Plant ID No.: 20831 Month: January Year: 2016

PUBLIC NOTICES						
VIOLATION TYPE	DESCRIPTION OF VIOLATION	VIOLATION OCCURRED?	NOTICE TO TCEQ <input checked="" type="checkbox"/>	NOTICE TO CUSTOMER *		VIOLATION DATES
			DATE OF NOTICE	DATE OF NOTICE	PENDING	
MONITORING & REPORTING FOR ALTERNATIVE TECHNOLOGIES	Were there any days when the plant failed to report all of the data required to evaluate its watershed protection program?	Not Applicable				
	Were there any days when the plant failed to report all of the data required to evaluate its bank filters? - see the Prefilters worksheet	Not Applicable				
	Were there any days when the plant failed to report all of the data needed to evaluate its presedimentation basin? - see the Prefilters worksheet	Not Applicable				
	Were there any days when the plant failed to report all of the data needed to evaluate its two stage softening process? - see the Prefilters worksheet	Not Applicable				
	Were there any days when the plant failed to report all of the data needed to evaluate its bag or cartridge filters? - see the Bag, Cartridge worksheet	Not Applicable				
	Were there any days when the plant failed to report all of the data needed to evaluate its 2nd stage filters? - see the 2ndStageFilters worksheet	Not Applicable				
	Were there any days when the plant failed to report all of the data needed to evaluate its membrane filters? - see the membrane worksheets	Not Applicable				
	Were there any days when the plant failed to report all of the data needed to evaluate its UV reactors? - see the UV-ISA and UV-CDA worksheets	Not Applicable				
	Did the plant fail to report the data needed to evaluate its UV sensors or UV Transmittance analyzers? - see the UV-Sensors and UVT worksheets	Not Applicable				
	Were there any days when the plant failed to report all the CT data needed to evaluate the level of <i>Cryptosporidium</i> inactivation achieved? - see the Crypto CT worksheet	Not Applicable				
Were there any days when the plant failed to report all of the data required by the Demonstration of Performance approval letter issued by the TCEQ?	Not Applicable					

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SUBMITTED BY: TOMAS SANCHEZ JR.

Certificate No. and Grade: WS0009456, C

Date: February 10, 2016

# SURFACE WATER MONTHLY OPERATING REPORT

FOR PUBLIC WATER SYSTEMS THAT ARE USING SURFACE WATER SOURCES  
OR GROUND WATER SOURCES UNDER THE INFLUENCE OF SURFACE WATER (cont.)

*Turbidity Data Page*

PUBLIC WATER SYSTEM NAME: Webb County Water Utility PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022 Plant ID No.: 20831 Connections: 1,916

Month: January Year: 2016 Population: 6,706

PERFORMANCE DATA																			
Date	Raw Water Pumpage (MGD)	Treated Water Pumpage (MGD)	RAW WATER ANALYSES		SETTLED WATER TURBIDITY (Optional Data)						FINISHED WATER QUALITY								
			NTU	Alk.	Basin No.						Combined Filter Effluent Turbidity						Lowest Residual	Time	
					1	2	3	4	5	6	NTU1	NTU2	NTU3	NTU4	NTU5	NTU6			
1	0.657	0.470	5	140	3.5	1.4						X	X	X	0.06	0.06	X	2.0	
2	1.070	0.345	6	140	7.9	1.1						0.06	0.06	X	X	0.07	0.07	1.5	
3	0.922	0.426	8	140	2.6	1.6						0.06	X	X	0.06	0.06	0.06	1.9	
4	1.149	0.716	10	160	2.4	1.5						X	X	0.07	0.06	0.06	0.06	1.8	
5	1.039	0.715	9	160	1.8	1.9						0.08	X	X	0.07	0.07	0.06	2.1	
6	0.803	0.586	7	160	1.5	1.3						X	X	X	0.04	0.06	0.06	1.2	
7	1.038	0.731	6	160	1.6	1.3						0.10	X	X	0.07	0.07	0.06	2.5	
8	0.852	0.636	5	140	1.9	1.5						X	X	X	0.06	0.06	0.05	1.9	
9	0.846	0.662	7	160	1.8	1.1						X	X	X	0.06	0.06	0.07	2.3	
10	0.943	0.637	8	140	2.3	2.9						0.07	X	X	0.08	0.07	0.08	1.2	
11	0.740	0.586	7	160	4.2	1.3						X	X	X	0.08	X	0.08	1.8	
12	1.148	0.782	8	160	3.8	1.4						0.08	0.07	X	X	0.07	0.07	2.3	
13	1.227	0.654	8	160	4.2	2.0						0.07	X	X	X	0.08	0.05	1.5	
14	1.207	0.757	8	160	1.1	2.2						0.05	X	X	0.06	0.10	0.15	1.6	
15	1.029	0.715	6	140	1.7	2.4						X	X	X	0.05	X	0.17	1.6	
16	1.037	0.689	9	140	1.5	1.9						X	X	X	0.06	X	0.15	1.2	
17	1.068	0.682	7	120	4.1	1.0						X	X	X	0.07	0.06	0.08	1.1	
18	1.038	0.718	8	140	0.5	1.3						X	X	X	0.11	0.12	0.11	1.2	
19	1.062	0.717	10	140	1.1	1.5						0.09	X	X	0.10	X	0.16	1.2	
20	0.889	0.632	6	140	1.2	1.6						X	X	X	0.10	0.10	0.09	1.3	
21	0.951	0.667	7	140	2.1	1.3						X	X	X	0.08	0.13	0.10	0.7	
22	0.901	0.632	11	140	0.9	1.6						0.10	X	X	0.15	0.10	0.12	1.8	
23	0.841	0.672	10	160	1.7	2.1						0.12	X	X	X	0.12	0.12	1.1	
24	1.095	0.726	15	140	1.7	2.5						0.12	X	X	0.13	0.11	0.12	2.0	
25	1.147	0.690	15	140	2.2	2.4						0.11	X	0.12	0.11	0.11	0.16	1.7	
26	0.801	0.565	13	120	1.4	1.3						0.14	X	X	0.13	0.13	0.15	1.6	
27	0.973	0.637	14	120	1.6	1.7						X	X	0.16	0.16	X	0.18	1.9	
28	1.016	0.685	15	120	1.8	0.8						0.19	X	X	0.16	0.19	0.15	2.0	
29	1.109	0.667	14	120	0.7	1.9						X	X	0.15	0.15	0.17	0.22	1.5	
30	1.062	0.768	12	120	0.7	1.0						X	X	0.18	0.19	0.16	0.15	1.5	
31	1.059	0.715	19	100	2.0	1.2						0.19	X	0.16	0.14	0.18	0.15	1.9	
Total	30.719	20.280																	
Avg	0.991	0.654																	
Max	1.227	0.782																	
Min	0.657	0.345																	

NOTE: ONLY use the "Time" column to show the length of time that the disinfectant residual entering the distribution system fell below the acceptable level.

SUBMITTED BY: TOMAS SANLHEZ JR. Certificate No. and Grade: WS0009456, C Date: February 10, 2016

# SURFACE WATER MONTHLY OPERATING REPORT

FOR PUBLIC WATER SYSTEMS THAT ARE USING SURFACE WATER SOURCES  
OR GROUND WATER SOURCES UNDER THE INFLUENCE OF SURFACE WATER (cont.)

Filter Data Page

PUBLIC WATER  
SYSTEM NAME: Webb County Water Utility

PLANT NAME  
OR NUMBER: Rio Bravo

PWS ID No.: 2400022

Plant ID No.: 20831

Month: January

Year: 2016

## PERFORMANCE DATA

### INDIVIDUAL FILTER TURBIDITY

Date	Filter No. 1		Filter No. 2		Filter No. 3		Filter No. 4		Filter No. 5		Filter No. 6		Filter No. 7		Filter No. 8		Filter No. 9		Filter No. 10		
	Max	4 Hrs	Max	4 Hrs																	
1	0.12		0.14		0.12		0.11														
2	0.11		0.14		0.16		0.18														
3	0.07		0.13		0.10		0.14														
4	0.12		0.16		0.19		0.13														
5	0.10		0.17		0.14		0.17														
6	0.12		0.12		0.16		0.13														
7	0.09		0.12		0.10		0.11														
8	0.10		0.08		0.10		0.12														
9	0.09		0.13		0.18		0.11														
10	0.16		0.13		0.16		0.14														
11	0.09		0.12		0.12		0.17														
12	0.10		0.11		0.13		0.11														
13	0.08		0.14		0.18		0.14														
14	0.10		0.10		0.23		0.09														
15	0.09		0.13		0.08		0.11														
16	0.18		0.12		0.12		0.08														
17	0.10		0.16		0.11		0.17														
18	0.16		0.15		0.12		0.14														
19	0.16		0.16		0.13		0.13														
20	0.19		0.15		0.15		0.14														
21	0.13		0.19		0.11		0.17														
22	0.19		0.19		0.17		0.17														
23	0.18		0.20		0.15		0.17														
24	0.17		0.17		0.26		0.14														
25	0.16		0.27		0.21		0.25														
26	0.22		0.27		0.16		0.23														
27	0.20		0.32		0.23		0.24														
28	0.28		0.17		0.16		0.21														
29	0.18		0.25		0.21		0.25														
30	0.23		0.21		0.24		0.22														
31	0.20		0.19		0.18		0.17														

SUMMARY & COMPLIANCE ACTIONS	Criteria	Filter No.										Plant										
		1	2	3	4	5	6	7	8	9	10											
	Number of days with event(s) above 0.5 NTU at 4.0 hrs this month																					
	Number of days with event(s) above 1.0 NTU this month	0	0	0	0																	
	Number of days with event(s) above 1.0 NTU last month	0	0	0	0																	
	Number of days with event(s) above 1.0 NTU two months ago	0	0	0	0																	
	Total number of days with event(s) above 1.0 NTU in three months	0	0	0	0																	
	Number of events above 2.0 NTU this month											0										
	Number of events above 2.0 NTU last month											0										
	Does the filter/plant have an approved Corrective Action Plan?	N	N	N	N																	N
	Is the plant required to submit a Filter Profile Report?	N	N	N	N																	
	Is the plant required to submit a Filter Assessment Report?	N	N	N	N																	
	Is the plant required to submit a Request for Compliance CPE?											N										

SUBMITTED BY:

TOMAS SANCHEZ JR.

Certificate No.  
and Grade:

WS0009455, C

Date:

February 10, 2016

# SURFACE WATER MONTHLY OPERATING REPORT

FOR PUBLIC WATER SYSTEMS THAT ARE USING SURFACE WATER SOURCES  
OR GROUND WATER SOURCES UNDER THE INFLUENCE OF SURFACE WATER (cont.)

Disinfection Data Page

PUBLIC WATER SYSTEM NAME: Webb County Water Utility  
PWS ID No.: 2400022 Plant ID No.: 20831

PLANT NAME OR NUMBER: Rio Bravo  
Month: January Year: 2016

DISINFECTION PROCESS PARAMETERS									
APPROVED CT STUDY PARAMETERS					PERFORMANCE STANDARDS				
Parameters	Disinfection Zones				D4	Log Inactivations			
	D1A	D1B	D2	D3		Giardia lamblia Cysts		Viruses	
Flow Rate (MGD)	1.250	1.250	0.625	1.250		0.5		2.0	
T <sub>10</sub> (minutes)	7.9	7.9	21.0	50.4					

PERFORMANCE DATA									
DISINFECTION PROCESS DATA									
Date	Disinfectant	C (mg/L)	Flow (MGD)	Temp (°C)	pH	Giardia Log	Virus Log	Inact. Ratio	Time <sup>1</sup>
1	FCL D1A	0.8	0.791	15.9	7.5				
	FCL D1B	0.7	0.791	15.6	7.4				
	FCL D2	0.6	0.395	16.3	7.4	1.36	33.68	2.72	
	CLA D3	2.4	1.582	15.8	7.3				
	D4								
2	FCL D1A	0.5	0.822	14.5	7.5				
	FCL D1B	0.4	0.822	14.7	7.5				
	FCL D2	0.3	0.411	15.7	7.8	0.70	16.67	1.40	
	CLA D3	2.2	1.645	15.1	7.7				
	D4								
3	FCL D1A	0.4	0.832	14.9	7.3				
	FCL D1B	0.4	0.832	14.9	7.3				
	FCL D2	0.3	0.416	14.2	7.7	0.64	13.32	1.27	
	CLA D3	2.5	1.664	15.5	7.5				
	D4								
4	FCL D1A	0.4	0.837	15.6	7.0				
	FCL D1B	0.8	0.837	15.2	7.0				
	FCL D2	0.5	0.418	14.4	7.1	0.96	20.18	1.92	
	CLA D3	2.2	1.674	14.4	7.1				
	D4								
5	FCL D1A	0.3	0.824	14.9	7.3				
	FCL D1B	0.6	0.824	14.6	7.3				
	FCL D2	0.7	0.412	13.9	7.4	1.04	25.46	2.08	
	CLA D3	2.2	1.648	13.9	7.4				
	D4								
6	FCL D1A	0.5	0.796	15.4	7.1				
	FCL D1B	0.7	0.796	15.1	7.1				
	FCL D2	1.0	0.398	14.4	7.1	1.65	38.53	3.29	
	CLA D3	2.6	1.582	15.9	7.1				
	D4								
7	FCL D1A	0.4	0.856	15.2	7.2				
	FCL D1B	0.6	0.856	15.5	7.2				
	FCL D2	1.3	0.428	16.0	7.3	1.92	50.85	3.83	
	CLA D3	2.6	1.712	15.9	7.5				
	D4								
8	FCL D1A	0.9	0.763	16.7	7.1				
	FCL D1B	1.0	0.763	17.1	7.1				
	FCL D2	0.7	0.381	16.8	7.2	1.85	44.22	3.71	
	CLA D3	2.5	1.527	17.7	7.2				
	D4								

PERFORMANCE DATA									
DISINFECTION PROCESS DATA									
Date	Disinfectant	C (mg/L)	Flow (MGD)	Temp (°C)	pH	Giardia Log	Virus Log	Inact. Ratio	Time <sup>1</sup>
9	FCL D1A	0.6	0.757	15.4	7.3				
	FCL D1B	0.9	0.757	15.5	7.2				
	FCL D2	1.0	0.378	15.2	7.4	1.76	45.53	3.52	
	CLA D3	2.5	1.514	16.1	7.4				
	D4								
10	FCL D1A	0.8	0.787	16.2	7.2				
	FCL D1B	0.8	0.797	15.8	7.2				
	FCL D2	0.9	0.398	15.1	7.2	1.70	41.57	3.39	
	CLA D3	2.5	1.585	15.2	7.3				
	D4								
11	FCL D1A	0.6	0.810	14.0	7.4				
	FCL D1B	0.5	0.810	14.4	7.4				
	FCL D2	0.8	0.405	16.0	7.4	1.44	37.56	2.88	
	CLA D3	2.2	1.620	16.5	7.2				
	D4								
12	FCL D1A	0.7	0.826	14.0	7.4				
	FCL D1B	0.6	0.826	14.0	7.4				
	FCL D2	0.9	0.413	14.0	7.5	1.30	34.65	2.59	
	CLA D3	2.2	1.653	14.0	7.7				
	D4								
13	FCL D1A	1.1	0.819	16.6	7.6				
	FCL D1B	0.5	0.819	16.5	7.6				
	FCL D2	0.9	0.409	16.0	7.6	1.37	39.77	2.73	
	CLA D3	1.5	1.638	17.4	7.7				
	D4								
14	FCL D1A	0.7	0.816	18.3	7.5				
	FCL D1B	0.2	0.816	18.2	7.5				
	FCL D2	1.0	0.408	19.1	7.6	1.67	47.17	3.34	
	CLA D3	2.1	1.632	18.5	7.4				
	D4								
15	FCL D1A	1.1	0.770	17.4	7.1				
	FCL D1B	1.0	0.770	17.2	7.2				
	FCL D2	1.0	0.385	16.4	7.8	1.66	55.05	3.72	
	CLA D3	1.7	1.540	17.2	7.3				
	D4								
16	FCL D1A	0.4	0.784	20.3	7.4				
	FCL D1B	0.4	0.784	19.4	7.4				
	FCL D2	0.4	0.392	20.6	7.3	1.28	30.46	2.55	
	CLA D3	1.6	1.588	20.1	7.2				
	D4								

NOTE: <sup>1</sup> = ONLY use the "Time" column to show the length of time that the total inactivation ratio was less than 1.00.

SUBMITTED BY: TOMAS SANCHEZ JR. Certificate No. and Grade: WS0009456, C Date: February 10, 2016

# SURFACE WATER MONTHLY OPERATING REPORT

FOR PUBLIC WATER SYSTEMS THAT ARE USING SURFACE WATER SOURCES  
OR GROUND WATER SOURCES UNDER THE INFLUENCE OF SURFACE WATER (cont.)  
*Disinfection Data Page (cont.)*

PUBLIC WATER SYSTEM NAME: Webb County Water Utility

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022

Plant ID No.: 20831

Month: January

Year: 2016

DISINFECTION PROCESS PARAMETERS									
APPROVED CT STUDY PARAMETERS						PERFORMANCE STANDARDS			
Parameters	Disinfection Zones					Log Inactivations			
	D1A	D1B	D2	D3	D4	Giardia lamblia Cysts		Virus	
Flow Rate (MGD)	1.25	1.25	0.63	1.25		0.5		2.0	
T <sub>90</sub> (minutes)	7.90	7.90	21.00	50.40					

PERFORMANCE DATA									
Date	DISINFECTION PROCESS DATA								
	Disinfectant	C (mg/L)	Flow (MGD)	Temp (°C)	pH	Giardia Log	Virus Log	Inact. Ratio	Time (min)
17	FCL D1A	1.0	0.799	17.0	7.2				
	FCL D1B	1.1	0.799	16.8	7.2				
	FCL D2	0.9	0.399	19.4	7.2	2.30	59.55	4.59	
	CLA D3	1.7	1.599	18.1	7.1				
	D4								
18	FCL D1A	0.9	0.819	19.4	7.3				
	FCL D1B	1.0	0.819	19.4	7.2				
	FCL D2	0.7	0.409	17.2	7.4	1.62	41.71	3.25	
	CLA D3	1.9	1.638	19.7	7.4				
	D4								
19	FCL D1A	0.7	0.830	21.1	7.3				
	FCL D1B	0.6	0.830	19.9	7.2				
	FCL D2	0.4	0.415	19.3	7.6	1.13	27.91	2.27	
	CLA D3	1.6	1.661	20.2	7.5				
	D4								
20	FCL D1A	0.8	0.820	17.9	7.3				
	FCL D1B	0.8	0.820	17.8	7.2				
	FCL D2	0.7	0.410	18.0	7.4	1.55	40.02	3.10	
	CLA D3	1.5	1.641	18.0	7.5				
	D4								
21	FCL D1A	0.5	0.807	18.4	7.2				
	FCL D1B	0.5	0.807	18.1	7.1				
	FCL D2	0.5	0.403	18.0	7.2	1.18	27.33	2.37	
	CLA D3	1.6	1.614	18.4	7.3				
	D4								
22	FCL D1A	0.7	0.789	17.5	7.2				
	FCL D1B	0.6	0.789	17.6	7.2				
	FCL D2	0.2	0.394	16.6	7.2	0.86	18.24	1.71	
	CLA D3	2.0	1.579	16.7	7.2				
	D4								
23	FCL D1A	0.4	0.771	16.0	7.2				
	FCL D1B	0.5	0.771	15.7	7.1				
	FCL D2	0.4	0.385	16.0	7.3	0.95	19.91	1.90	
	CLA D3	2.6	1.543	15.2	7.2				
	D4								
24	FCL D1A	0.7	0.771	17.3	7.2				
	FCL D1B	0.7	0.771	17.2	7.1				
	FCL D2	0.4	0.385	17.1	7.2	1.29	27.96	2.57	
	CLA D3	2.4	1.542	17.8	7.3				
	D4								

PERFORMANCE DATA									
Date	DISINFECTION PROCESS DATA								
	Disinfectant	C (mg/L)	Flow (MGD)	Temp (°C)	pH	Giardia Log	Virus Log	Inact. Ratio	Time (min)
25	FCL D1A	0.7	0.776	17.1	7.1				
	FCL D1B	0.9	0.776	17.0	7.1				
	FCL D2	0.4	0.388	17.7	6.7	1.44	28.79	2.87	
	CLA D3	2.2	1.552	18.2	7.1				
	D4								
26	FCL D1A	0.8	0.803	19.7	7.1				
	FCL D1B	0.6	0.803	18.8	7.0				
	FCL D2	0.6	0.401	19.3	7.0	1.85	36.82	3.30	
	CLA D3	2.2	1.607	18.3	7.4				
	D4								
27	FCL D1A	0.8	0.810	15.5	7.3				
	FCL D1B	0.9	0.810	15.6	7.1				
	FCL D2	0.8	0.405	16.8	7.2	1.64	40.16	3.29	
	CLA D3	2.3	1.620	15.2	7.6				
	D4								
28	FCL D1A	0.7	0.811	15.5	7.2				
	FCL D1B	0.8	0.811	15.2	7.1				
	FCL D2	0.5	0.405	16.1	7.2	1.18	26.70	2.37	
	CLA D3	2.5	1.622	16.1	7.2				
	D4								
29	FCL D1A	0.6	0.792	17.4	7.2				
	FCL D1B	0.7	0.792	18.5	7.2				
	FCL D2	0.6	0.396	17.6	7.3	1.50	37.27	2.89	
	CLA D3	1.6	1.584	18.8	7.8				
	D4								
30	FCL D1A	0.8	0.829	16.3	7.2				
	FCL D1B	1.0	0.829	16.3	7.2				
	FCL D2	0.5	0.414	17.0	7.4	1.24	30.70	2.47	
	CLA D3	1.8	1.658	16.5	7.3				
	D4								
31	FCL D1A	0.6	0.858	17.7	7.2				
	FCL D1B	0.6	0.858	18.6	7.2				
	FCL D2	0.5	0.429	17.7	7.4	1.18	28.02	2.36	
	CLA D3	2.1	1.717	18.9	7.4				
	D4								
	Max					2.30	59.55	4.59	
	Min					0.64	13.32	1.27	
	Avg					1.39	34.38	2.79	
	SD					0.37	11.01	0.74	

NOTE: = ONLY use the "Time=" column to show the length of time that the total inactivation ratio was less than 1.00.

SUBMITTED BY: Thomas Sanchez Jr.

Certificate No. and Grade: WS0009456, C

Date: February 10, 2016

# MONTHLY TOTAL ORGANIC CARBON REMOVAL REPORT (TOCMOR)

## FOR SURFACE WATER OR GROUND WATER UNDER THE INFLUENCE OF SURFACE WATER SYSTEMS

PUBLIC WATER SYSTEM NAME: Webb County Water Utility PLANT NAME OR NUMBER: Rio Bravo  
 PWS ID No.: 2400022 Plant ID No.: 20831 Month: January Year: 2016  
 Type of treatment:  Conventional  Unconventional explain: \_\_\_\_\_

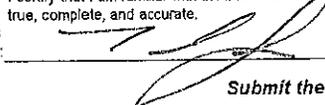
Note: Systems are required to run one TOC Sample Set every month. Additional space is provided for those systems that do additional sampling

Test No.	Test Date	Monthly TOC Sample Set			Actual % TOC Removed	Step 1 Required % Removal	Step 1 Removal Ratio	Optional data		INDIVIDUAL SAMPLE COMPLIANCE REMOVAL RATIO
		Raw Alkalinity	Raw TOC	Treated TOC				Step 2 Required % Removal	Step 2 Removal Ratio	
		Enter the Sample Set results						calculated	calculated from matrix	
1	1/20	140	2.52	2.37	6.0	15	0.40			0.40
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
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28										
29										
30										
31										
Avg		140.00	2.52	2.37	5.95		0.40			0.40
Max		140.00	2.52	2.37	5.95		0.40			0.40
Min		140.00	2.52	2.37	5.95		0.40			0.40

### TOTAL ORGANIC CARBON (TOC) REMOVAL SUMMARY

TOC Summary					Monthly Compliance Ratio
Raw Water Alkalinity	Raw Water TOC	Treated Water TOC	TOC % Removal	ACC # used	
140	2.52	2.37	6.0	NA	0.40

I certify that I am familiar with the information contained in this report and that, to the best of my knowledge, the information is true, complete, and accurate.

Operator's Signature:  Certificate No. and Grade: WS0008456, C Date: February 10, 2016

**Submit the report by the 10th of the month following the reporting period to:**  
 TEXAS COMMISSION ON ENVIRONMENTAL QUALITY  
 WATER SUPPLY DIVISION/PUBLIC DRINKING WATER SECTION (MC-155)  
 P.O. BOX 13087, AUSTIN, TEXAS 78711-3087