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

PUBLIC WATER SYSTEM NAME: Webb County Water Utility

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022

Plant ID No.: 20831

Report for the Month of: March 2016

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. & Grade: WS0009456, C

Date: April 10, 2016

TREATMENT PLANT PERFORMANCE

Total number of turbidity readings:	128	Number of 4-hour periods when plant was off-line:	58
Number of readings above 0.10 NTU:	9	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 readings above 0.5 NTU:	0	Number of days when plant was on-line but individual filter turbidity data was not collected:	0
Number of readings above 1.0 NTU:	0		
Maximum allowable turbidity level:	0.3	Number of days with readings above 1.0 NTU:	0 (2)
Percentage of readings above this limit:	0.0 % (1)	Number of days with readings above 5.0 NTU:	0 (3)

Statistical Summary

Maximum turbidity reading:	0.13 NTU	Average turbidity value:	0.08 NTU
Minimum turbidity reading:	0.05 NTU	Standard deviation:	0.014 NTU
CFE 95th percentile value:	0.11 NTU	IFE 95th percentile:	0.178 NTU

Bin Class: 2 Crypto Credit Required: 4.0 (7A) Crypto Credit Achieved: 3.5 (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:	0.5	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:	2.20
		Average log inactivation for viruses:	45.40
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:	42 (at least 31 required) (8)		
Average disinfectant residual value:	1.40	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: ◉ NONE ○ Filter Profile ○ Filter Assessment ○ CPE

Additional report(s) for individual filter monitoring submitted: ◉ NONE ○ Filter Profile (9) ○ Filter Assessment (10) ○ 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

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: March Year: 2016

PUBLIC NOTICES

VIOLATION TYPE	DESCRIPTION OF VIOLATION	VIOLATION OCCURRED?	NOTICE TO TCEQ ■ DATE OF NOTICE	NOTICE TO CUSTOMER * DATE OF NOTICE	NOTICE TO CUSTOMER * PENDING	VIOLATION DATES
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	03/04/16	03/11/16	NO	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.

SUMITTED BY: TOMAS SANCHEZ JR. Certificate No. and Grade: WS0009456, C Date: April 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: March Year: 2016

PUBLIC NOTICES

VIOLATION TYPE	DESCRIPTION OF VIOLATION	VIOLATION OCCURRED?	NOTICE TO TCEQ ■ DATE OF NOTICE	NOTICE TO CUSTOMER * DATE OF NOTICE	NOTICE TO CUSTOMER * PENDING	VIOLATION DATES
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 *Crptosporidium* 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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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: 1,918

Month: March Year: 2016 Population: 6,713

PERFORMANCE DATA

Date	Raw Water Pumpage (MGD)	Treated Water Pumpage (MGD)	RAW WATER ANALYSES		SETTLED WATER TURBIDITY (Optional Data) Basin No.						FINISHED WATER QUALITY Combined Filter Effluent Turbidity						Lowest Residual	Time*
			NTU	Alk.	1	2	3	4	5	6	NTU1	NTU2	NTU3	NTU4	NTU5	NTU6		
1	1.144	0.755	17	140	1.7	0.9					0.06	0.10	0.08	0.06	0.07	0.06	1.9	
2	1.238	0.751	23	140	1.5	0.9					0.07	X	X	0.07	0.08	0.07	1.7	
3	1.212	0.791	26	140	1.3	0.9					0.08	0.10	X	0.08	0.09	0.08	1.3	
4	1.108	0.705	27	120	1.4	1.0					0.07	X	X	0.08	0.10	0.09	1.4	
5	1.385	0.807	24	100	1.2	0.8					0.09	X	X	0.09	0.08	0.10	1.7	
6	1.036	0.697	22	120	0.9	0.7					0.08	0.12	0.09	0.08	0.08	0.08	1.8	
7	1.208	0.768	21	120	1.4	0.9					X	X	X	0.08	0.08	0.09	1.9	
8	1.183	0.805	27	120	1.6	1.2					0.07	X	0.08	0.10	0.11	X	1.4	
9	1.172	0.630	28	120	1.4	3.0					0.11	X	X	0.10	0.11	0.09	1.3	
10	1.075	0.608	34	140	1.4	1.2					X	X	0.10	0.09	0.08	0.08	1.5	
11	1.010	0.580	47	140	1.4	1.0					X	X	X	0.09	0.09	0.09	1.2	
12	0.977	0.620	33	120	2.1	1.2					X	X	X	0.07	0.07	0.07	1.2	
13	0.950	0.623	25	140	1.2	1.0					X	X	X	0.07	0.06	0.06	1.0	
14	1.133	0.643	30	140	5.7	1.5					0.05	X	X	0.07	0.09	0.12	1.0	
15	1.275	0.829	34	140	0.3	1.0					0.11	0.11	X	0.11	0.09	0.09	1.1	
16	1.147	0.745	35	140	0.8	1.1					0.08	X	0.13	0.08	0.07	0.07	1.2	
17	0.987	0.704	36	140	0.7	1.6					0.08	X	X	0.08	0.07	0.08	0.9	
18	1.155	0.677	28	140	0.9	1.3					0.08	X	X	0.07	0.09	0.09	0.7	
19	0.896	0.500	35	120	0.6	1.0					0.09	X	X	0.09	0.08	X	1.2	
20	0.991	0.684	43	140	0.7	1.0					X	0.10	0.08	X	X	0.08	0.9	
21	1.263	0.759	49	140	0.9	1.4					0.08	X	0.09	0.08	0.07	0.07	0.7	
22	1.056	0.707	37	140	1.4	1.3					X	X	0.08	0.07	0.06	0.07	2.2	
23	1.049	0.800	28	120	1.0	1.2					0.07	X	X	0.06	0.06	0.06	1.7	
24	1.260	0.742	31	120	1.0	1.0					0.06	X	0.08	0.07	0.08	0.08	1.0	
25	1.231	0.774	28	120	1.2	1.4					0.07	X	0.09	0.07	0.07	0.07	1.9	
26	1.230	0.781	33	120	0.9	0.6					0.07	X	X	0.07	0.08	0.07	1.2	
27	1.044	0.697	35	140	1.0	0.5					0.07	X	X	0.08	0.07	0.06	1.1	
28	1.407	0.824	31	140	0.6	0.6					0.07	X	X	0.08	0.08	0.08	0.8	
29	1.111	0.710	35	140	0.6	0.9					X	X	X	0.07	0.07	0.07	1.6	
30	1.131	0.731	25	140	0.5	0.7					X	X	0.08	0.07	0.08	0.07	1.0	
31	1.125	0.766	20	120	0.9	1.3					0.07	X	0.07	0.07	0.07	0.07	1.3	
Total	35.189	22.213																
Avg	1.135	0.717																
Max	1.407	0.829																
Min	0.896	0.500																

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 Sanchez Jr. Certificate No. and Grade: WS0009456, C Date: April 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: March 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	Max	4 Hrs	Max	4 Hrs	Max	4 Hrs	Max	4 Hrs	Max	4 Hrs	Max	4 Hrs	Max	4 Hrs	Max	4 Hrs
1	0.10		0.10		0.13		0.10													
2	0.11		0.14		0.12		0.16													
3	0.13		0.14		0.16		0.13													
4	0.16		0.17		0.19		0.16													
5	0.13		0.30		0.14		0.12													
6	0.13		0.18		0.17		0.14													
7	0.10		0.13		0.20		0.13													
8	0.10		0.12		0.18		0.13													
9	0.14		0.14		0.13		0.14													
10	0.14		0.15		0.21		0.25													
11	0.12		0.11		0.12		0.13													
12	0.11		0.11		0.12		0.13													
13	0.08		0.11		0.09		0.11													
14	0.01		0.13		0.15		0.10													
15	0.15		0.14		0.13		0.12													
16	0.14		0.12		0.15		0.09													
17	0.14		0.13		0.13		0.11													
18	0.14		0.12		0.13		0.13													
19	0.14		0.20		0.13		0.09													
20	0.13		0.16		0.10		0.09													
21	0.15		0.13		0.13		0.17													
22	0.09		0.11		0.11		0.16													
23	0.11		0.08		0.11		0.10													
24	0.14		0.11		0.12		0.13													
25	0.08		0.11		0.10		0.11													
26	0.10		0.16		0.10		0.16													
27	0.11		0.10		0.12		0.09													
28	0.11		0.16		0.13		0.13													
29	0.11		0.17		0.13		0.10													
30	0.12		0.16		0.14		0.10													
31	0.10		0.17		0.11		0.08													

SUMMARY & COMPLIANCE ACTIONS

Criteria	Filter No. 1	2	3	4	5	6	7	8	9	10	Plant
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: WS0009456, C Date: April 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

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022 **Plant ID No.:** 20831 **Month:** March **Year:** 2016

DISINFECTION PROCESS PARAMETERS

APPROVED CT STUDY PARAMETERS						PERFORMANCE STANDARDS	
	Disinfection Zones					Log Inactivations	
Parameters	D1A	D1B	D2	D3	D4	Giardia lamblia Cysts	Viruses
Flow Rate (MGD)	1.250	1.250	0.625	1.250		0.5	2.0
T_{10} (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[1]
1	FCL *D1A*	0.8	0.895	21.6	7.2				
	FCL *D1B*	0.5	0.895	22.0	7.1				
	FCL *D2*	0.8	0.447	21.0	7.3	2.20	46.72	4.40	
	CLA *D3*	2.6	0.895	22.3	7.2			(c)	
	D4								
2	FCL *D1A*	0.5	0.890	22.2	7.1				
	FCL *D1B*	0.6	0.890	22.3	7.3				
	FCL *D2*	0.6	0.445	22.3	7.3	2.10	41.39	4.21	
	CLA *D3*	2.9	0.890	22.4	7.3			(c)	
	D4								
3	FCL *D1A*	0.4	0.841	22.2	7.2				
	FCL *D1B*	0.5	0.841	22.6	7.2				
	FCL *D2*	0.5	0.420	21.7	7.3	2.07	36.19	4.15	
	CLA *D3*	3.1	0.841	23.9	7.3			(c)	
	D4								
4	FCL *D1A*	0.5	0.825	21.0	7.2				
	FCL *D1B*	0.6	0.825	21.0	7.2				
	FCL *D2*	0.6	0.412	21.0	7.4	2.11	40.81	4.23	
	CLA *D3*	3.3	0.825	21.0	7.3			(c)	
	D4								
5	FCL *D1A*	0.7	0.827	21.8	7.3				
	FCL *D1B*	0.5	0.827	21.8	7.2				
	FCL *D2*	0.4	0.413	22.2	7.3	2.03	36.00	4.06	
	CLA *D3*	3.2	0.827	22.2	7.5			(c)	
	D4								
6	FCL *D1A*	0.9	0.844	22.1	7.5				
	FCL *D1B*	1.0	0.844	22.8	7.3				
	FCL *D2*	0.7	0.422	22.0	7.5	2.43	57.21	4.86	
	CLA *D3*	2.4	0.844	23.3	7.6			(c)	
	D4								
7	FCL *D1A*	0.8	0.857	22.9	7.3				
	FCL *D1B*	0.7	0.857	22.9	7.2				
	FCL *D2*	0.7	0.428	23.1	7.6	2.59	56.82	5.18	
	CLA *D3*	2.9	0.857	23.7	7.5			(c)	
	D4								
8	FCL *D1A*	0.4	0.867	24.3	7.0				
	FCL *D1B*	0.6	0.867	24.4	6.9				
	FCL *D2*	0.7	0.433	24.0	7.3	2.57	54.12	5.13	
	CLA *D3*	2.3	0.867	25.1	7.1			(c)	
	D4								

PERFORMANCE DATA

DISINFECTION PROCESS DATA

Date	Disinfectant	C (mg/L)	Flow (MGD)	Temp (°C)	pH	Giardia Log	Virus Log	Inact. Ratio	Time[1]
9	FCL *D1A*	0.3	0.894	22.5	7.0				
	FCL *D1B*	0.7	0.894	22.5	6.9				
	FCL *D2*	0.5	0.447	22.7	7.0	1.66	29.83	3.33	
	CLA *D3*	2.2	0.894	22.4	7.1			(c)	
	D4								
10	FCL *D1A*	0.4	0.882	20.8	7.4				
	FCL *D1B*	0.3	0.882	20.8	7.3				
	FCL *D2*	0.9	0.441	20.8	7.6	1.96	46.10	3.92	
	CLA *D3*	2.5	0.882	20.7	7.6			(c)	
	D4								
11	FCL *D1A*	0.5	0.880	21.5	7.5				
	FCL *D1B*	0.5	0.880	21.9	7.4				
	FCL *D2*	1.0	0.440	21.9	7.6	2.47	61.78	4.94	
	CLA *D3*	2.5	0.880	22.3	7.5			(c)	
	D4								
12	FCL *D1A*	0.5	0.851	21.7	7.4				
	FCL *D1B*	0.8	0.851	21.6	7.4				
	FCL *D2*	1.5	0.425	21.3	7.3	3.26	83.90	6.51	
	CLA *D3*	2.5	0.851	21.8	7.5			(c)	
	D4								
13	FCL *D1A*	0.4	0.828	22.5	7.3				
	FCL *D1B*	0.5	0.828	22.6	7.2				
	FCL *D2*	0.8	0.414	23.0	7.5	2.27	53.64	4.53	
	CLA *D3*	2.1	0.828	22.6	7.6			(c)	
	D4								
14	FCL *D1A*	0.6	0.860	27.5	6.9				
	FCL *D1B*	0.5	0.860	23.7	6.8				
	FCL *D2*	0.8	0.430	23.0	6.9	2.92	59.25	5.85	
	CLA *D3*	2.2	0.860	23.7	7.0			(c)	
	D4								
15	FCL *D1A*	0.6	0.860	22.2	6.9				
	FCL *D1B*	0.6	0.860	22.6	6.8				
	FCL *D2*	0.8	0.430	21.8	7.0	2.43	51.72	4.86	
	CLA *D3*	1.7	0.860	22.5	7.1			(c)	
	D4								
16	FCL *D1A*	0.7	0.802	23.5	7.0				
	FCL *D1B*	0.8	0.802	23.5	7.0				
	FCL *D2*	0.9	0.401	22.9	7.2	3.23	68.74	6.46	
	CLA *D3*	2.4	0.802	24.3	7.1			(c)	
	D4								

NOTE: [1] 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:** April 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: March Year: 2016

DISINFECTION PROCESS PARAMETERS

APPROVED CT STUDY PARAMETERS						PERFORMANCE STANDARDS	
	Disinfection Zones					Log Inactivations	
Parameters	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_{10} (minutes)	7.90	7.90	21.00	50.40			

PERFORMANCE DATA

Date	Disinfectant	C (mg/L)	Flow (MGD)	Temp (°C)	pH	Giardia Log	Virus Log	Inact. Ratio	Time
17	FCL *D1A*	0.3	0.822	23.4	7.0				
	FCL *D1B*	0.5	0.822	23.6	6.9				
	FCL *D2*	0.4	0.411	23.2	7.2	1.81	32.21	3.63	
	CLA *D3*	2.1	0.822	24.2	7.1				
	D4								
18	FCL *D1A*	0.3	0.832	24.3	6.8				
	FCL *D1B*	0.3	0.832	24.5	6.7				
	FCL *D2*	0.4	0.416	23.9	7.1	1.50	29.54	3.00	
	CLA *D3*	1.1	0.832	24.9	7.0				
	D4								
19	FCL *D1A*	0.6	0.843	23.3	7.0				
	FCL *D1B*	0.5	0.843	22.5	6.8				
	FCL *D2*	0.6	0.421	22.3	7.1	2.13	42.91	4.27	
	CLA *D3*	2.1	0.843	22.0	6.9				
	D4								
20	FCL *D1A*	0.7	0.829	21.6	6.9				
	FCL *D1B*	0.7	0.829	21.6	6.9				
	FCL *D2*	0.6	0.414	21.6	7.2	2.36	47.18	4.72	
	CLA *D3*	2.4	0.829	22.3	7.0				
	D4								
21	FCL *D1A*	0.9	0.817	19.7	7.0				
	FCL *D1B*	0.9	0.817	19.4	6.9				
	FCL *D2*	0.8	0.408	20.0	7.1	2.38	51.98	4.77	
	CLA *D3*	2.1	0.817	19.8	7.0				
	D4								
22	FCL *D1A*	0.7	0.782	22.8	7.1				
	FCL *D1B*	0.6	0.782	22.6	7.1				
	FCL *D2*	0.6	0.391	22.9	7.2	2.64	52.81	5.28	
	CLA *D3*	2.5	0.782	24.2	7.2				
	D4								
23	FCL *D1A*	0.5	0.779	21.7	7.2				
	FCL *D1B*	0.5	0.779	22.4	7.1				
	FCL *D2*	0.6	0.389	22.2	7.2	2.54	49.73	5.09	
	CLA *D3*	2.4	0.779	24.5	7.2				
	D4								
24	FCL *D1A*	0.4	0.802	22.3	7.2				
	FCL *D1B*	0.4	0.802	22.2	7.1				
	FCL *D2*	0.5	0.401	22.5	7.2	1.95	37.23	3.91	
	CLA *D3*	2.4	0.802	22.8	7.1				
	D4								

PERFORMANCE DATA

Date	Disinfectant	C (mg/L)	Flow (MGD)	Temp (°C)	pH	Giardia Log	Virus Log	Inact. Ratio	Time
25	FCL *D1A*	0.2	0.820	21.3	7.2				
	FCL *D1B*	0.4	0.820	21.3	7.1				
	FCL *D2*	0.4	0.410	21.3	7.3	1.54	27.54	3.08	
	CLA *D3*	2.4	0.820	21.4	7.2				
	D4								
26	FCL *D1A*	0.6	0.830	21.5	7.1				
	FCL *D1B*	0.7	0.830	21.5	7.0				
	FCL *D2*	0.6	0.415	21.2	7.3	2.07	42.61	4.14	
	CLA *D3*	2.4	0.830	21.4	7.2				
	D4								
27	FCL *D1A*	0.2	0.843	22.3	7.0				
	FCL *D1B*	0.3	0.843	22.4	6.9				
	FCL *D2*	0.5	0.421	22.8	7.0	1.78	32.09	3.57	
	CLA *D3*	2.3	0.843	22.2	7.0				
	D4								
28	FCL *D1A*	0.5	0.866	22.8	7.0				
	FCL *D1B*	0.7	0.866	22.6	6.8				
	FCL *D2*	0.3	0.433	22.5	7.0	1.44	24.80	2.87	
	CLA *D3*	1.8	0.866	23.3	7.0				
	D4								
29	FCL *D1A*	0.2	0.835	22.8	7.1				
	FCL *D1B*	0.4	0.835	23.2	7.1				
	FCL *D2*	0.5	0.417	23.2	7.3	1.95	34.17	3.90	
	CLA *D3*	2.8	0.835	23.7	7.2				
	D4								
30	FCL *D1A*	0.3	0.813	22.6	7.1				
	FCL *D1B*	0.3	0.813	22.7	7.0				
	FCL *D2*	0.3	0.406	22.8	7.1	1.07	21.36	2.14	
	CLA *D3*	1.0	0.813	22.6	7.3				
	D4								
31	FCL *D1A*	0.4	0.803	23.4	7.1				
	FCL *D1B*	0.7	0.803	24.5	7.1				
	FCL *D2*	0.8	0.401	23.5	7.2	2.78	56.93	5.55	
	CLA *D3*	2.3	0.803	24.8	7.2				
	D4								
	Max					3.26	83.90	6.51	
	Min					1.07	21.36	2.14	
	Avg					2.20	45.40	4.40	
	SD					0.49	13.66	0.99	

NOTE: = 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: April 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: March

Year: 2016

Type of treatment: X 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	calculated			calculated
1	3/7	120	3.12	2.32	25.6	25	1.03			1.03
2										
3										
4										
5										
6										
7										
8										
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28										
29										
30										
31										
Avg		120.00	3.12	2.32	25.64		1.03			1.03
Max		120.00	3.12	2.32	25.64		1.03			1.03
Min		120.00	3.12	2.32	25.64		1.03			1.03

TOTAL ORGANIC CARBON (TOC) REMOVAL SUMMARY

TOC Summary					Monthly Compliance Ratio
Raw Water Alkalinity	Raw Water TOC	Treated Water TOC	TOC % Removal	ACC # used	
120	3.12	2.32	25.6	NA	1.03

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: WS0009456, C

Date: April 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