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

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: July 2018

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: WS0012772, B

Date: August 10, 2018

TREATMENT PLANT PERFORMANCE

Total number of turbidity readings:	144	Number of 4-hour periods when plant was off-line:	42
Number of readings above 0.10 NTU:	5	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)

Bin Class: 2 **Crypto Credit Required:** 4.0 (7A) **Crypto Credit Achieved:** 4.5 (7B) **Bin 3&4 Credits:** 1.0 (7C)

Watershed Protection:	0.0	Conventional Treatment:	3.0	Second Stage Filtration:	0.0
Bank Filtration:	0.0	Enhanced Filter Performance:	0.5	UV:	1.0
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 low inactivation (including UV) for no more than 4.0 consecutive hours:	0	Average log inactivation (including UV) for Giardia:	8.57
		Average log inactivation) (including UV) for viruses:	160.84
Number of days with low inactivation (including UV) 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	Minimum pH in the last disinfection zone:	6.70
		Number of days with pH below 7.0 in the last disinfection zone:	17.00
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:	2.08	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 not required because there were no treatment technique or monitoring/reporting violations 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	P.7-TOC ACC
Alternate Technol.	UV–CDA	UV–Sensor Data	UV–UVT Analyzer	

STATISTICAL ANALYSIS OF TURBIDITY DATA

Settled Water Stastical Summary	Maximum turbidity reading:	5.40 NTU	Average turbidity value:	2.10 NTU
	Minimum turbidity reading:	0.66 NTU	Standard deviation:	1.036 NTU
	95th percentile value:	4.16 NTU		
IFE Stastical Summary	Maximum IFE turbidity reading:	0.00 NTU	Average IFE turbidity value:	0.05 NTU
	Minimum IFEturbidity reading:	0.30 NTU	Standard deviation:	0.119 NTU
	95th percentile IFE value:	0.06 NTU		
CFE Stastical Summary	Maximum CFE turbidity reading:	0.11 NTU	Average CFE turbidity value:	0.09 NTU
	Minimum CFE turbidity reading:	0.04 NTU	Standard deviation:	0.019 NTU
	95th percentile CFE value:	0.10 NTU		

STATISTICAL ANALYSIS OF pH DATA

Last Zone pH Stastical Summary	Maximum pH reading:	7.13 pH	Average pH value:	6.94 pH
	Minimum pH reading:	6.70 pH	Standard deviation:	0.130 pH
	95th percentile value:	7.12 pH		

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.)

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:** 1,947

Month: July **Year:** 2018 **Population:** 6,815

PERFORMANCE DATA

Date	Raw Water Pumpage (MGD)	Treated Water Pumpage (MGD)	RAW WATER ANALYSES NTU	RAW WATER ANALYSES Alk.	SETTLED WATER TURBIDITY (Optional Data) Basin No. 1	2	3	4	5	6	FINISHED WATER QUALITY Combined Filter Effluent Turbidity NTU1	NTU2	NTU3	NTU4	NTU5	NTU6	Lowest Residual	Time*
1	1.241	0.772	13	100	1.7	1.3					0.05	X	0.04	0.04	0.05	0.05	3.1	
2	1.177	0.803	13	120	1.8	0.7					0.06	X	0.07	0.08	0.08	0.09	1.9	
3	1.444	0.826	18	100	2.1	0.8					0.09	0.09	X	0.09	0.10	0.10	2.9	
4	1.240	0.830	18	120	2.3	0.9					0.10	X	0.10	0.10	0.10	0.10	2.9	
5	1.207	0.656	16	120	2.4	2.9					0.09	X	0.10	0.11	0.10	0.10	1.8	
6	1.130	0.702	20	120	2.7	1.5					X	X	0.10	0.10	0.09	0.08	2.1	
7	1.188	0.670	21	120	2.0	1.0					X	X	0.09	0.08	0.09	0.08	2.3	
8	0.794	0.575	18	120	2.3	1.2					X	X	X	0.09	0.09	X	2.5	
9	1.089	0.631	20	120	2.1	1.2					0.10	0.10	X	0.10	0.10	0.10	2.2	
10	0.966	0.694	11	120	2.0	0.7					X	X	0.10	0.10	X	0.10	2.5	
11	1.155	0.758	10	120	2.3	1.6					0.10	X	0.10	0.10	0.10	0.10	2.5	
12	1.136	0.802	14	120	2.3	1.0					0.10	X	0.10	0.10	0.10	0.10	2.4	
13	1.240	0.765	6	100	2.7	0.9					0.10	X	0.10	0.11	0.09	0.09	2.4	
14	1.123	0.757	9	100	2.3	1.2					0.08	X	0.08	0.08	0.08	0.07	2.2	
15	1.194	0.459	14	100	3.1	0.9					0.05	X	0.04	0.04	0.05	0.05	1.5	
16	1.117	0.777	23	120	2.9	0.8					0.05	X	X	0.07	X	0.08	1.2	
17	1.300	0.877	22	120	1.6	0.8					0.08	X	X	0.09	0.10	0.11	1.9	
18	1.275	0.826	23	120	1.6	0.9					0.10	0.10	X	0.10	0.10	0.10	3.2	
19	1.303	0.858	30	120	1.3	1.3					0.10	X	X	0.10	0.09	0.09	2.8	
20	1.217	0.805	34	120	1.7	1.0					0.08	X	0.08	0.09	0.10	0.05	2.5	
21	1.240	0.752	32	120	2.5	1.1					0.05	X	0.05	0.06	0.04	0.04	2.9	
22	1.203	0.850	15	100	2.3	1.2					X	X	0.04	0.05	0.05	0.05	2.8	
23	1.386	0.905	26	100	2.9	2.0					0.05	X	0.08	0.08	0.09	0.10	2.6	
24	1.361	0.834	23	120	4.2	2.2					0.09	X	0.10	0.10	0.10	0.10	2.2	
25	1.096	0.830	21	120	4.2	3.3					0.10	X	0.10	0.10	0.11	0.10	2.2	
26	1.168	0.814	24	100	4.4	1.3					0.10	X	X	0.10	0.11	0.10	2.5	
27	1.423	0.827	21	100	3.0	2.2					0.10	0.10	0.10	0.09	0.09	0.09	1.7	
28	1.263	0.817	17	100	3.1	2.8					0.08	X	0.08	0.08	0.07	0.07	1.1	
29	1.454	0.819	14	100	3.1	2.7					0.05	0.08	0.08	0.08	0.08	0.09	2.2	
30	1.164	0.811	20	100	3.3	3.3					0.08	X	0.09	0.09	0.09	0.10	1.7	
31	1.344	0.856	23	100	5.4	3.7					0.09	X	0.10	0.09	0.09	0.08	1.6	
Total	37.638	23.958		Max	5.4	3.7												
Avg	1.214	0.773		Avg	2.6	1.6												
Max	1.454	0.905		95th %	4.3	3.3												
Min	0.794	0.459		Min	1.3	0.7												
				95th percentile based on data from all basins						4.2								

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:** WS0012772, B **Date:** August 10, 2018

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: July Year: 2018

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	0.06		0.16		0.13		0.06													
2	0.08		0.10		0.14		0.08													
3	0.07		0.14		0.12		0.06													
4	0.08		0.28		0.19		0.06													
5	0.10		0.12		0.14		0.08													
6	0.08		0.29		0.15		0.09													
7	0.10		0.17		0.18		0.09													
8	0.10		0.14		0.19		0.13													
9	0.10		0.20		0.13		0.08													
10	0.08		0.18		0.12		0.09													
11	0.09		0.14		0.13		0.12													
12	0.07		0.21		0.14		0.09													
13	0.06		0.22		0.29		0.08													
14	0.08		0.26		0.13		0.08													
15	0.08		0.22		0.13		0.09													
16	0.07		0.28		0.24		0.22													
17	0.09		0.27		0.12		0.05													
18	0.08		0.30		0.12		0.07													
19	0.07		0.15		0.14		0.06													
20	0.06		0.18		0.17		0.07													
21	0.07		0.11		0.13		0.07													
22	0.05		0.08		0.13		0.16													
23	0.07		0.15		0.16		0.14													
24	0.07		0.07		0.15		0.14													
25	0.06		0.07		0.12		0.07													
26	0.07		0.20		0.11		0.06													
27	0.06		0.15		0.09		0.06													
28	0.06		0.08		0.10		0.08													
29	0.07		0.10		0.11		0.08													
30	0.08		0.08		0.12		0.07													
31	0.08		0.07		0.16		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: WS0012772, B Date: August 10, 2018

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:** July **Year:** 2018

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

Date	Disinfectant	C (mg/L)	Flow (MGD)	Temp (°C)	pH	Giardia Log	Virus Log	Inact. Ratio	Time
1	FCL *D1A*	1.5	0.766	26.2	7.1				
	FCL *D1B*	1.3	0.766	26.1	7.1				
	FCL *D2*	1.7	0.383	26.0	7.3	6.61	171.76	13.23	
	CLA *D3*	3.5	0.766	27.8	6.9			(G)	
	D4								
2	FCL *D1A*	1.6	0.776	28.2	7.3				
	FCL *D1B*	1.5	0.776	27.5	7.1				
	FCL *D2*	1.4	0.388	27.6	7.2	6.46	163.69	12.93	
	CLA *D3*	2.9	0.776	28.7	7.0			(G)	
	D4								
3	FCL *D1A*	1.5	0.740	28.9	7.3				
	FCL *D1B*	1.4	0.740	29.4	7.2				
	FCL *D2*	1.5	0.370	27.8	7.2	7.62	193.56	15.25	
	CLA *D3*	3.4	0.740	29.5	7.1			(G)	
	D4								
4	FCL *D1A*	1.3	0.786	29.4	7.3				
	FCL *D1B*	1.3	0.786	29.9	7.3				
	FCL *D2*	1.5	0.393	28.9	7.2	7.38	183.74	14.76	
	CLA *D3*	4.0	0.786	29.7	7.1			(G)	
	D4								
5	FCL *D1A*	1.1	0.774	29.1	7.1				
	FCL *D1B*	1.0	0.774	29.3	7.0				
	FCL *D2*	1.3	0.387	29.3	7.2	6.64	161.09	13.27	
	CLA *D3*	3.0	0.774	29.6	7.1			(G)	
	D4								
6	FCL *D1A*	0.8	0.766	29.4	7.1				
	FCL *D1B*	0.9	0.766	29.1	7.1				
	FCL *D2*	1.0	0.383	28.6	7.2	5.09	119.76	10.18	
	CLA *D3*	2.6	0.766	29.8	7.0			(G)	
	D4								
7	FCL *D1A*	1.1	0.789	28.7	7.2				
	FCL *D1B*	1.0	0.789	29.4	7.3				
	FCL *D2*	1.2	0.394	29.3	7.2	5.77	146.84	11.54	
	CLA *D3*	2.3	0.789	29.1	7.1			(G)	
	D4								
8	FCL *D1A*	1.2	0.804	27.4	7.4				
	FCL *D1B*	1.1	0.804	27.8	7.4				
	FCL *D2*	1.4	0.402	27.6	6.8	6.75	152.60	13.51	
	CLA *D3*	3.3	0.804	26.0	7.0			(G)	
	D4								

PERFORMANCE DATA

Date	Disinfectant	C (mg/L)	Flow (MGD)	Temp (°C)	pH	Giardia Log	Virus Log	Inact. Ratio	Time
9	FCL *D1A*	1.3	0.812	27.0	7.0				
	FCL *D1B*	1.3	0.812	27.0	6.9				
	FCL *D2*	1.3	0.406	27.0	7.0	6.00	141.20	12.01	
	CLA *D3*	2.7	0.812	27.0	6.8			(G)	
	D4								
10	FCL *D1A*	1.1	0.807	28.0	7.1				
	FCL *D1B*	0.8	0.807	28.0	7.1				
	FCL *D2*	1.3	0.403	26.9	6.4	6.89	132.81	13.79	
	CLA *D3*	3.5	0.807	28.0	6.8			(G)	
	D4								
11	FCL *D1A*	1.6	0.790	27.0	7.1				
	FCL *D1B*	1.5	0.790	26.0	7.2				
	FCL *D2*	1.3	0.395	26.0	7.1	5.78	141.09	11.56	
	CLA *D3*	2.8	0.790	26.0	7.0			(G)	
	D4								
12	FCL *D1A*	1.4	0.770	28.2	7.2				
	FCL *D1B*	1.2	0.770	28.0	7.1				
	FCL *D2*	1.4	0.385	28.7	7.2	7.21	171.75	14.42	
	CLA *D3*	4.0	0.770	27.7	7.0			(G)	
	D4								
13	FCL *D1A*	1.4	0.761	26.8	7.2				
	FCL *D1B*	1.4	0.761	28.0	7.2				
	FCL *D2*	1.7	0.380	25.8	7.2	7.13	179.15	14.26	
	CLA *D3*	3.8	0.761	27.7	7.0			(G)	
	D4								
14	FCL *D1A*	1.5	0.754	26.7	7.2				
	FCL *D1B*	1.3	0.754	27.4	7.2				
	FCL *D2*	1.7	0.377	26.4	7.1	7.31	181.14	14.62	
	CLA *D3*	3.6	0.754	27.5	7.1			(G)	
	D4								
15	FCL *D1A*	1.4	0.799	26.7	7.3				
	FCL *D1B*	1.3	0.799	27.5	7.3				
	FCL *D2*	1.7	0.399	26.0	7.2	6.52	170.82	13.05	
	CLA *D3*	3.2	0.799	27.9	7.0			(G)	
	D4								
16	FCL *D1A*	1.2	0.799	27.4	7.4				
	FCL *D1B*	1.5	0.799	27.9	7.3				
	FCL *D2*	1.7	0.399	26.8	7.2	6.46	169.92	12.93	
	CLA *D3*	3.1	0.799	27.4	7.1			(G)	
	D4								

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:** WS0012772, B **Date:** August 10, 2018

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:** July **Year:** 2018

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

DISINFECTION PROCESS DATA

Date	Disinfectant	C (mg/L)	Flow (MGD)	Temp (°C)	pH	Giardia Log	Virus Log	Inact. Ratio	Time=
17	FCL *D1A*	1.0	0.797	27.7	7.4				
	FCL *D1B*	0.9	0.797	27.8	7.3				
	FCL *D2*	1.5	0.398	27.2	7.3	5.59	151.91	11.18	
	CLA *D3*	2.1	0.797	28.4	7.0			(G)	
	D4								
18	FCL *D1A*	0.9	0.750	28.0	7.2				
	FCL *D1B*	0.9	0.750	28.1	7.2				
	FCL *D2*	1.6	0.375	27.5	7.1	7.40	173.52	14.79	
	CLA *D3*	4.7	0.750	28.3	7.0			(G)	
	D4								
19	FCL *D1A*	1.5	0.764	28.2	7.0				
	FCL *D1B*	1.6	0.764	29.0	7.0				
	FCL *D2*	1.7	0.382	28.0	7.0	8.42	205.99	16.85	
	CLA *D3*	3.3	0.764	30.6	6.8			(G)	
	D4								
20	FCL *D1A*	1.1	0.765	28.4	7.1				
	FCL *D1B*	1.4	0.765	28.5	7.0				
	FCL *D2*	1.2	0.382	26.3	7.0	6.46	138.70	12.92	
	CLA *D3*	4.3	0.765	29.5	6.8			(G)	
	D4								
21	FCL *D1A*	1.0	0.738	27.8	7.0				
	FCL *D1B*	1.3	0.738	28.5	7.0				
	FCL *D2*	0.9	0.369	27.7	6.9	5.46	113.69	10.91	
	CLA *D3*	3.1	0.738	30.2	6.8			(G)	
	D4								
22	FCL *D1A*	0.6	0.787	26.5	6.8				
	FCL *D1B*	0.6	0.787	26.4	6.9				
	FCL *D2*	0.8	0.393	27.0	6.9	4.26	83.89	8.52	
	CLA *D3*	3.0	0.787	28.3	6.8			(G)	
	D4								
23	FCL *D1A*	1.5	0.764	28.2	7.0				
	FCL *D1B*	1.6	0.764	29.0	7.0				
	FCL *D2*	1.7	0.382	28.0	7.0	8.42	205.99	16.85	
	CLA *D3*	3.3	0.764	30.6	6.8			(G)	
	D4								
24	FCL *D1A*	1.1	0.765	28.4	7.1				
	FCL *D1B*	1.4	0.765	28.5	7.0				
	FCL *D2*	1.2	0.382	26.3	7.0	6.46	138.70	12.92	
	CLA *D3*	4.3	0.765	29.5	6.8			(G)	
	D4								

PERFORMANCE DATA

DISINFECTION PROCESS DATA

Date	Disinfectant	C (mg/L)	Flow (MGD)	Temp (°C)	pH	Giardia Log	Virus Log	Inact. Ratio	Time=
25	FCL *D1A*	1.0	0.738	27.8	7.0				
	FCL *D1B*	1.3	0.738	28.5	7.0				
	FCL *D2*	0.9	0.369	27.7	6.9	5.46	113.69	10.91	
	CLA *D3*	3.1	0.738	30.2	6.8			(G)	
	D4								
26	FCL *D1A*	1.7	0.715	28.0	6.9				
	FCL *D1B*	1.6	0.712	28.0	7.0				
	FCL *D2*	1.2	0.356	28.0	6.8	8.15	175.33	16.29	
	CLA *D3*	4.2	0.712	28.0	6.7			(G)	
	D4								
27	FCL *D1A*	1.3	0.709	27.4	7.0				
	FCL *D1B*	1.2	0.709	27.8	7.1				
	FCL *D2*	1.6	0.354	27.6	6.9	8.60	198.65	17.19	
	CLA *D3*	4.1	0.709	28.3	6.8			(G)	
	D4								
28	FCL *D1A*	1.3	0.713	26.6	6.8				
	FCL *D1B*	1.2	0.713	27.6	7.0				
	FCL *D2*	1.6	0.356	26.3	7.0	7.70	182.96	15.39	
	CLA *D3*	3.3	0.713	28.5	6.8			(G)	
	D4								
29	FCL *D1A*	1.5	0.728	28.3	7.2				
	FCL *D1B*	1.3	0.728	27.1	7.2				
	FCL *D2*	1.4	0.364	27.6	7.1	7.21	176.64	14.42	
	CLA *D3*	3.3	0.728	28.1	7.1			(G)	
	D4								
30	FCL *D1A*	1.8	0.752	29.0	7.2				
	FCL *D1B*	1.9	0.752	29.0	7.1				
	FCL *D2*	1.5	0.376	29.0	7.1	8.11	212.52	16.23	
	CLA *D3*	2.7	0.752	29.0	6.9			(G)	
	D4								
31	FCL *D1A*	1.5	0.748	29.9	7.2				
	FCL *D1B*	1.3	0.748	30.1	7.2				
	FCL *D2*	0.8	0.374	29.3	7.1	5.77	132.88	11.54	
	CLA *D3*	3.1	0.748	28.5	7.1			(G)	
	D4								
					Max	8.60	212.52	17.19	
					Min	4.26	83.89	8.52	
					Avg	6.75	160.84	13.49	
					SD	1.04	29.94	2.08	

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:** WS0012772, B **Date:** August 10, 2018

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: July

Year: 2018

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	7/5	120	3.67	2.91	20.7	25	0.83			0.83
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										
Avg		120.00	3.67	2.91	20.71		0.83			0.83
Max		120.00	3.67	2.91	20.71		0.83			0.83
Min		120.00	3.67	2.91	20.71		0.83			0.83

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	3.67	2.91	20.7	NA	0.83

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: WS0012772, B

Date: August 10, 2018

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

UV MONTHLY OPERATING REPORT

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

UV Calculated Dose Approach Reactors

PUBLIC WATER SYSTEM NAME: Webb County Water Utility

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022 **Plant ID No.:** 20831 **Month:** July **Year:** 2018

VALIDATED OPERATIONAL CONDITIONS

VALIDATED PARAMETERS						PERFORMANCE REQUIREMENTS	
Parameters	Reactor Number					Crypto Log Inactivation	Required UV Dose (mJ/cm^2)
	UVCD1	UVCD2	UVCD3	UVCD4	UVCD5		
Max Validated Flow Rate (MGD)	5.080	5.080	5.080			1.0	2.50
Min Validated UVT (%)	69.20	69.20	69.20				

PERFORMANCE DATA

Date	Reactor	Total Product. (MG)	Max. Flow Rate (MGD)	Min UV Trans. (%)	Minimum Meas'd UV Dose (mJ/cm^2)	Sensor CF	Adjusted Minimum UV Dose (mJ/cm^2)	Total Off-Spec Product. (MG)	Consec. Off-Spec Hours (hr)
		OPERATIONAL DATA							
1	1	0.337	0.549	92.40	46.11	1.00	46.11	0.000	0.25
	2	0.532	0.771	92.40	0.00	1.00	0.00	0.013	
	3	0.056	0.506	92.40	0.00	1.00	0.00	0.004	
	4								
	5								
2	1	0.379	0.557	92.50	0.00	1.00	0.00	0.004	0.75
	2	0.524	0.770	92.50	0.00	1.00	0.00	0.006	
	3	X	X	X	X	X	X	X	
	4								
	5								
3	1	0.465	0.577	92.50	0.00	1.00	0.00	0.002	0.25
	2	0.636	0.805	92.50	0.00	1.00	0.00	0.003	
	3	X	X	X	X	X	X	X	
	4								
	5								
4	1	0.412	0.631	93.00	9.86	1.00	9.86	0.000	0.000
	2	0.584	0.906	93.00	9.56	1.00	9.56	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
5	1	0.422	0.835	92.90	0.00	1.00	0.00	0.001	0.25
	2	0.595	1.189	92.90	0.00	1.00	0.00	0.007	
	3	X	X	X	X	X	X	X	
	4								
	5								
6	1	0.402	0.804	89.80	0.00	1.00	0.00	0.004	0.25
	2	0.572	1.185	89.80	0.00	1.00	0.00	0.006	
	3	X	X	X	X	X	X	X	
	4								
	5								
7	1	0.415	0.849	82.40	24.70	1.00	24.70	0.000	0.000
	2	0.590	1.203	82.40	6.22	1.00	6.22	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
8	1	0.297	0.841	75.80	0.00	1.00	0.00	0.009	0.25
	2	0.418	1.173	75.80	0.00	1.00	0.00	0.003	
	3	X	X	X	X	X	X	X	
	4								
	5								

PERFORMANCE DATA

Date	Reactor	Total Product. (MG)	Max. Flow Rate (MGD)	Min UV Trans. (%)	Minimum Meas'd UV Dose (mJ/cm^2)	Sensor CF	Adjusted Minimum UV Dose (mJ/cm^2)	Total Off-Spec Product. (MG)	Consec. Off-Spec Hours (hr)
		OPERATIONAL DATA							
9	1	0.407	0.855	79.90	18.83	1.00	18.83	0.000	0.000
	2	0.576	1.221	79.90	17.01	1.00	17.01	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
10	1	0.345	0.651	80.40	0.00	1.00	0.00	0.004	0.25
	2	0.489	0.888	80.40	0.00	1.00	0.00	0.006	
	3	X	X	X	X	X	X	X	
	4								
	5								
11	1	0.381	0.642	81.50	33.93	1.00	33.93	0.000	0.000
	2	0.543	0.902	81.50	23.99	1.00	23.99	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
12	1	0.107	0.611	79.30	35.13	1.00	35.13	0.000	0.000
	2	0.546	0.884	79.30	22.86	1.00	22.86	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
13	1	X	X	X	X	X	X	X	0.25
	2	0.615	0.892	88.40	0.00	1.00	0.00	0.001	
	3	0.408	0.580	88.40	30.48	1.00	30.48	0.000	
	4								
	5								
14	1	X	X	X	X	X	X	X	0.25
	2	0.565	0.947	88.00	2.38	1.00	2.38	0.007	
	3	0.378	0.662	88.00	26.86	1.00	26.86	0.000	
	4								
	5								
15	1	X	X	X	X	X	X	X	0.000
	2	0.592	0.963	87.90	13.13	1.00	13.13	0.000	
	3	0.396	0.622	87.90	40.20	1.00	40.20	0.000	
	4								
	5								
16	1	X	X	X	X	X	X	X	0.25
	2	0.572	1.103	87.90	0.00	1.00	0.00	0.002	
	3	0.235	0.713	87.90	35.82	1.00	35.82	0.000	
	4								
	5								

SUBMITTED BY: Tomas Sanchez Jr. **Certificate No. and Grade:** WS0012772, B **Date:** August 10, 2018

UV MONTHLY OPERATING REPORT

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

UV Calculated Dose Approach Reactors (cont.)

PUBLIC WATER SYSTEM NAME: Webb County Water Utility

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022 **Plant ID No.:** 20831 **Month:** July **Year:** 2018

TRUE

VALIDATED OPERATIONAL CONDITIONS

VALIDATED PARAMETERS						PERFORMANCE REQUIREMENTS	
Parameters	Reactor Number					Crypto Log Inactivation	Required UV Dose (mJ/cm^2)
	UVCD1	UVCD2	UVCD3	UVCD4	UVCD5		
Max Validated Flow Rate (MGD)	5.080	5.080	5.080			1.0	2.50
Min Validated UVT (%)	69.20	69.20	69.20				

PERFORMANCE DATA

Date	Reactor	Total Product. (MG)	Max. Flow Rate (MGD)	Min UV Trans. (%)	Minimum Meas'd UV Dose (mJ/cm^2)	Sensor CF	Adjusted Minimum UV Dose (mJ/cm^2)	Total Off-Spec Product. (MG)	Consec. Off-Spec Hours (hr)
		OPERATIONAL DATA							
17	1	0.441	0.655	88.60	0.00	1.00	0.00	0.002	0.25
	2	0.615	0.879	88.60	0.00	1.00	0.00	0.002	
	3	X	X	X	X	X	X	X	
	4								
	5								
18	1	0.448	0.634	86.80	0.00	1.00	0.00	0.003	0.25
	2	0.622	0.843	86.80	0.00	1.00	0.00	0.004	
	3	X	X	X	X	X	X	X	
	4								
	5								
19	1	0.432	0.705	80.60	29.83	1.00	29.83	0.000	0.000
	2	0.615	0.976	80.60	5.90	1.00	5.90	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
20	1	0.419	0.612	81.90	18.24	1.00	18.24	0.000	0.000
	2	0.599	0.845	81.90	22.72	1.00	22.72	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
21	1	0.452	0.637	82.40	0.00	1.00	0.00	0.008	0.50
	2	0.649	0.882	82.40	0.00	1.00	0.00	0.012	
	3	X	X	X	X	X	X	X	
	4								
	5								
22	1	0.392	0.618	83.60	0.00	1.00	0.00	0.003	0.75
	2	0.566	0.871	83.60	0.00	1.00	0.00	0.005	
	3	X	X	X	X	X	X	X	
	4								
	5								
23	1	0.446	0.623	81.40	0.00	1.00	0.00	0.003	0.50
	2	0.645	0.870	81.40	0.00	1.00	0.00	0.004	
	3	X	X	X	X	X	X	X	
	4								
	5								
24	1	0.452	0.827	82.20	0.00	1.00	0.00	0.006	0.50
	2	0.667	1.137	82.20	0.00	1.00	0.00	0.009	
	3	X	X	X	X	X	X	X	
	4								
	5								

PERFORMANCE DATA

Date	Reactor	Total Product. (MG)	Max. Flow Rate (MGD)	Min UV Trans. (%)	Minimum Meas'd UV Dose (mJ/cm^2)	Sensor CF	Adjusted Minimum UV Dose (mJ/cm^2)	Total Off-Spec Product. (MG)	Consec. Off-Spec Hours (hr)
		OPERATIONAL DATA							
25	1	0.396	0.601	84.60	0.00	1.00	0.00	0.001	0.50
	2	0.559	0.824	84.60	0.00	1.00	0.00	0.004	
	3	X	X	X	X	X	X	X	
	4								
	5								
26	1	0.412	0.576	85.10	0.00	1.00	0.00	0.006	0.75
	2	0.570	0.810	85.10	1.00	1.00	1.00	0.008	
	3	X	X	X	X	X	X	X	
	4								
	5								
27	1	0.513	0.744	90.20	34.32	1.00	34.32	0.000	0.000
	2	0.699	1.006	90.20	19.21	1.00	19.21	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
28	1	0.424	0.574	82.70	32.58	1.00	32.58	0.000	0.25
	2	0.578	0.781	82.70	0.00	1.00	0.00	0.007	
	3	X	X	X	X	X	X	X	
	4								
	5								
29	1	0.515	0.579	82.80	32.40	1.00	32.40	0.000	0.000
	2	0.706	0.806	82.80	23.86	1.00	23.86	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
30	1	0.449	0.791	84.70	24.25	1.00	24.25	0.000	0.000
	2	0.618	1.105	84.70	17.31	1.00	17.31	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
31	1	0.014	0.867	85.10	0.00	1.00	0.00	0.001	0.25
	2	0.644	1.214	85.10	0.00	1.00	0.00	0.001	
	3	X	X	X	X	X	X	X	
	4								
	5								

SUBMITTED BY: Tomas Sanchez Jr. **Certificate No. and Grade:** WS0012772, B **Date:** August 10, 2018

UV MONTHLY OPERATING REPORT

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

UV Calculated Dose Approach - Daily Minimum Inactivation Summary Page

PUBLIC WATER SYSTEM NAME: Webb County Water Utility

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022 **Plant ID No.:** 20831 **Month:** July **Year:** 2018

DAILY MINIMUM INACTIVATION

Reactor Range	SUMMARY DATA					Reactor Range	SUMMARY DATA				
	Date	Min Dose (mJ/cm^2)	Inactivation Credit Achieved Giardia Log	Virus Log	Crypto Log		Date	Min Dose (mJ/cm^2)	Min Inactivation Giardia Log	Virus Log	Crypto Log
1 to 3	1	0.00*	1.00	0.00	1.00	1 to 3	9	17.01	3.64	0.00	1.00
	2	0.00*	1.00	0.00	1.00		10	0.00*	1.00	0.00	1.00
	3	0.00*	1.00	0.00	1.00		11	23.99	4.00	0.04	1.00
	4	9.56	2.78	0.00	1.00		12	22.86	4.00	0.01	1.00
	5	0.00*	1.00	0.00	1.00		13	0.00*	1.00	0.00	1.00
	6	0.00*	1.00	0.00	1.00		14	2.38*	1.18	0.00	1.00
	7	6.22	2.20	0.00	1.00		15	13.13	3.27	0.00	1.00
	8	0.00*	1.00	0.00	1.00		16	0.00*	1.00	0.00	1.00

DAILY MINIMUM INACTIVATION

Reactor Range	SUMMARY DATA					Reactor Range	SUMMARY DATA				
	Date	Min Dose (mJ/cm^2)	Min Inactivation Giardia Log	Virus Log	Crypto Log		Date	Min Dose (mJ/cm^2)	Min Inactivation Giardia Log	Virus Log	Crypto Log
1 to 3	17	0.00*	1.00	0.00	1.00	1 to 3	25	0.00*	1.00	0.00	1.00
	18	0.00*	1.00	0.00	1.00		26	0.00*	1.00	0.00	1.00
	19	5.90	2.14	0.00	1.00		27	19.21	3.80	0.00	1.00
	20	18.24	3.73	0.00	1.00		28	0.00*	1.00	0.00	1.00
	21	0.00*	1.00	0.00	1.00		29	23.86	4.00	0.04	1.00
	22	0.00*	1.00	0.00	1.00		30	17.31	3.66	0.00	1.00
	23	0.00*	1.00	0.00	1.00		31	0.00*	1.00	0.00	1.00
	24	0.00*	1.00	0.00	1.00						

Total volume of water treated by all CDA reactors: 30.35 MG

Total volume of off-spec water produced by all CDA reactors: 0.17 MG

Percentage of off-spec water produced by all CDA reactors: 0.56 %

Crypto Log-Inactivation Credit for treatment by CDA reactors: 1.00 log

Treated water pumpage and total production by all UV reactors differ by more than 15% on these days: (July, 2018) 1, 2, 3, 4, 5, 7, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 22, 23, 24, 26, 28, 29, 31

SUBMITTED BY: Tomas Sanchez Jr. **Certificate No. and Grade:** WS0012772, B **Date:** August 10, 2018

UV MONTHLY OPERATING REPORT

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

UV Sensor Calibration for Calculated Dose Reactors

PUBLIC WATER SYSTEM NAME: Webb County Water Utility

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022 **Plant ID No.:** 20831

Month: July **Year:** 2018

CALIBRATION DATA

CDA Reactor Number	UV Sensor Calibration Report for Calculated Dose Reactors								
	Calibration Date and Data	Duty Sensor	Duty Sensor Serial #	Ref Sensor Serial #	Duty Sensor Reading (mJ/cm^2)	Ref Sensor Reading (mJ/cm^2)	Cal Ratio	Duty Sensor Replaced?	Calculated Sensor CF
UVCD No. 1	Previous Month's Sensor CF	1	92	38	64.30	64.10	1.00	NA	1.00
		2							
		3							
	1.00	4							
	Calibration Date	5							
		6							
	7/1/18	7							
	New Sensor CF	8							
		9							
	1.00	10							
UVCD No. 2	Previous Month's Sensor CF	1	44	38	63.70	72.60	0.88	NA	1.00
		2							
		3							
	1.00	4							
	Calibration Date	5							
		6							
	7/1/18	7							
	New Sensor CF	8							
		9							
	1.00	10							
UVCD No. 3	Previous Month's Sensor CF	1	39	38	108.00	112.00	0.96	NA	1.00
		2							
		3							
	1.00	4							
	Calibration Date	5							
		6							
	7/1/18	7							
	New Sensor CF	8							
		9							
	1.00	10							
UVCD No. 4	Previous Month's Sensor CF	1							
		2							
		3							
		4							
	Calibration Date	5							
		6							
		7							
	New Sensor CF	8							
		9							
		10							
UVCD No. 5	Previous Month's Sensor CF	1							
		2							
		3							
		4							
	Calibration Date	5							
		6							
		7							
	New Sensor CF	8							
		9							
		10							

CALIBRATION DATA

CDA Reactor Number	UV Sensor Calibration Report for Calculated Dose Reactors								
	Calibration Date	Duty Sensor	Duty Sensor Serial #	Ref Sensor Serial #	Duty Sensor Reading (mJ/cm^2)	Ref Sensor Reading (mJ/cm^2)	Cal Ratio	Duty Sensor Replaced?	Calculated Sensor CF
UVCD No. 6	Previous Month's Sensor CF	1							
		2							
		3							
		4							
	Calibration Date	5							
		6							
		7							
	New Sensor CF	8							
		9							
		10							
UVCD No. 7	Previous Month's Sensor CF	1							
		2							
		3							
		4							
	Calibration Date	5							
		6							
		7							
	New Sensor CF	8							
		9							
		10							
UVCD No. 8	Previous Month's Sensor CF	1							
		2							
		3							
		4							
	Calibration Date	5							
		6							
		7							
	New Sensor CF	8							
		9							
		10							
UVCD No. 9	Previous Month's Sensor CF	1							
		2							
		3							
		4							
	Calibration Date	5							
		6							
		7							
	New Sensor CF	8							
		9							
		10							
UVCD No. 10	Previous Month's Sensor CF	1							
		2							
		3							
		4							
	Calibration Date	5							
		6							
		7							
	New Sensor CF	8							
		9							
		10							

SUBMITTED BY: Tomas Sanchez Jr.

Certificate No. and Grade: WS0012772, B

Date: August 10, 2018

UV MONTHLY OPERATING REPORT

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

UV Sensor Calibration for Calculated Dose Reactors (cont.)

PUBLIC WATER SYSTEM NAME: Webb County Water Utility

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022 **Plant ID No.:** 20831 **Month:** July **Year:** 2018

CALIBRATION DATA

CDA Reactor Number	UV Sensor Calibration Report for Calculated Dose Reactors									
	Calibration Date	Duty Sensor	Duty Sensor Serial #	Ref Sensor Serial #	Duty Sensor Reading (mJ/cm^2)	Ref Sensor Reading (mJ/cm^2)	Cal Ratio	Duty Sensor Replaced?	Calculated Sensor CF
UVCD No. 11	Previous Month's Sensor CF	1							
		2							
		3							
		4							
	Calibration Date	5							
		6							
		7							
	New Sensor CF	8							
		9							
		10							
UVCD No. 12	Previous Month's Sensor CF	1							
		2							
		3							
		4							
	Calibration Date	5							
		6							
		7							
	New Sensor CF	8							
		9							
		10							
UVCD No. 13	Previous Month's Sensor CF	1							
		2							
		3							
		4							
	Calibration Date	5							
		6							
		7							
	New Sensor CF	8							
		9							
		10							
UVCD No. 14	Previous Month's Sensor CF	1							
		2							
		3							
		4							
	Calibration Date	5							
		6							
		7							
	New Sensor CF	8							
		9							
		10							
UVCD No. 15	Previous Month's Sensor CF	1							
		2							
		3							
		4							
	Calibration Date	5							
		6							
		7							
	New Sensor CF	8							
		9							
		10							

CALIBRATION DATA

CDA Reactor Number	UV Sensor Calibration Report for Calculated Dose Reactors									
	Calibration Date	Duty Sensor	Duty Sensor Serial #	Ref Sensor Serial #	Duty Sensor Reading (mJ/cm^2)	Ref Sensor Reading (mJ/cm^2)	Cal Ratio	Duty Sensor Replaced?	Calculated Sensor CF
UVCD No. 16	Previous Month's Sensor CF	1							
		2							
		3							
		4							
	Calibration Date	5							
		6							
		7							
	New Sensor CF	8							
		9							
		10							
UVCD No. 17	Previous Month's Sensor CF	1							
		2							
		3							
		4							
	Calibration Date	5							
		6							
		7							
	New Sensor CF	8							
		9							
		10							
UVCD No. 18	Previous Month's Sensor CF	1							
		2							
		3							
		4							
	Calibration Date	5							
		6							
		7							
	New Sensor CF	8							
		9							
		10							
UVCD No. 19	Previous Month's Sensor CF	1							
		2							
		3							
		4							
	Calibration Date	5							
		6							
		7							
	New Sensor CF	8							
		9							
		10							
UVCD No. 20	Previous Month's Sensor CF	1							
		2							
		3							
		4							
	Calibration Date	5							
		6							
		7							
	New Sensor CF	8							
		9							
		10							

SUBMITTED BY: Tomas Sanchez Jr. **Certificate No. and Grade:** WS0012772, B **Date:** August 10, 2018

UV MONTHLY OPERATING REPORT

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

PUBLIC WATER SYSTEM NAME: Webb County Water Utility

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022 Plant ID 20831 Month: July Year: 2018

NA

CALIBRATION DATA

UVT Analyzer Number	Week	Calibration Date	On-line UVT Analyzer Serial #	On-line Reading (% UVT)	Grab Sample Reading (% UVT)	Difference (% UVT)	Recalibration Performed? (if Diff > 2%)	Other Action Taken
	Benchtop UVT Analyzer Serial Number:				P0108955			
UVT No. 1	1	7/1/18	78713	92.60	91.60	1.00	NA	NA
	2	7/9/18	78713	93.50	91.60	1.90	NA	NA
	3	7/16/18	78713	90.20	90.60	0.40	NA	NA
	4	7/23/18	78713	91.70	90.90	0.80	NA	NA
	5	7/30/18	78713	93.00	92.30	0.70	NA	NA
UVT No. 2	1							
	2							
	3							
	4							
	5							
UVT No. 3	1							
	2							
	3							
	4							
	5							
UVT No. 4	1							
	2							
	3							
	4							
	5							
UVT No. 5	1							
	2							
	3							
	4							
	5							
UVT No. 6	1							
	2							
	3							
	4							
	5							
UVT No. 7	1							
	2							
	3							
	4							
	5							
UVT No. 8	1							
	2							
	3							
	4							
	5							
UVT No. 9	1							
	2							
	3							
	4							
	5							
UVT No. 10	1							
	2							
	3							
	4							
	5							

CALIBRATION DATA

UVT Analyzer Number	Week	Calibration Date	On-line UVT Analyzer Serial #	On-line Reading (% UVT)	Grab Sample Reading (% UVT)	Difference (% UVT)	Recalibration Performed? (if Diff > 2%)	Other Action Taken
	Benchtop UVT Analyzer Serial Number:				P0108955			
UVT No. 11	1							
	2							
	3							
	4							
	5							
UVT No. 12	1							
	2							
	3							
	4							
	5							
UVT No. 13	1							
	2							
	3							
	4							
	5							
UVT No. 14	1							
	2							
	3							
	4							
	5							
UVT No. 15	1							
	2							
	3							
	4							
	5							
UVT No. 16	1							
	2							
	3							
	4							
	5							
UVT No. 17	1							
	2							
	3							
	4							
	5							
UVT No. 18	1							
	2							
	3							
	4							
	5							
UVT No. 19	1							
	2							
	3							
	4							
	5							
UVT No. 20	1							
	2							
	3							
	4							
	5							

SUBMITTED BY: Tomas Sanchez Jr

Certificate No. and Grade: WS0012772, B

Date: August 10, 2018

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.)

LT2ESWTR Summary Page

PUBLIC WATER SYSTEM NAME: Webb County Water Utility

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022 Plant ID No.: 20831 Month: July Year: 2018

Note: Indicate the treatment processes in each train. (see comment)	TREATMENT TECHNOLOGIES																
	PRETREATMENT CREDITS				FILTRATION TECHNOLOGY CREDITS						ENHANCED PERFORMANCE CREDITS		DISINFECTION TECHNOLOGY CREDITS			OTHER TREATMENT CREDITS	
	Riverbank Filtration	Presed. with Coagul.	Two-stage Lime Softening	Conventional Sedimentation or Clarification	Conventional Granular Media Filters	Bag or Cartridge Filtration	Two-Stage Filtration	Membrane Filtration (PBT)	Membrane Filtration (QBT)	Membrane Filtration (MBT)	Enhanced CFE Perform.	Optimized IFE Perform.	Crypto Chemical Disinfect.	UV Disinfect. (ISA)	UV Disinfect. (CDA)	Watershed Protection	Perform. Demon.
Overall	FALSE	FALSE	FALSE	TRUE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	TRUE	FALSE	FALSE	FALSE	TRUE	FALSE	FALSE
Train 1				TRUE	TRUE						TRUE	FALSE			TRUE		
Train 2																	
Train 3																	
Train 4																	
Train 5																	
1					2.50										1.00		
2					2.50										1.00		
3					2.50										1.00		
4					2.50										1.00		
5					2.50										1.00		
6					2.50										1.00		
7					2.50										1.00		
8					2.50										1.00		
9					2.50										1.00		
10					2.50										1.00		
11					2.50										1.00		
12					2.50										1.00		
13					2.50										1.00		
14					2.50										1.00		
15					2.50										1.00		
16				0.50	2.50						0.50				1.00		
17					2.50										1.00		
18					2.50										1.00		
19					2.50										1.00		
20					2.50										1.00		
21					2.50										1.00		
22					2.50										1.00		
23					2.50										1.00		
24					2.50										1.00		
25					2.50										1.00		
26					2.50										1.00		
27					2.50										1.00		
28					2.50										1.00		
29					2.50										1.00		
30					2.50										1.00		
31					2.50										1.00		
MIN				0.5	2.5						0.5				1.00		

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.)

LT2ESWTR Summary 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:** July **Year:** 2018

	GIARDIA AND CRYPTOSPORIDIUM TREATMENT CREDITS												GIARDIA INACTIVATION CREDITS						VIRAL INACTIVATION CREDITS					
	Total Daily Credit By Train						Total Daily Bin 3 & 4 Credit by Train						Total Daily Inactivation Credit By Train						Total Daily Inactivation Credit by Train					
Overall																								
Train 1	TRUE						TRUE						TRUE						TRUE					
Train 2		FALSE						FALSE						FALSE						FALSE				
Train 3			FALSE						FALSE						FALSE						FALSE			
Train 4				FALSE						FALSE						FALSE						FALSE		
Train 5					FALSE						FALSE						FALSE						FALSE	
						Minimum						Minimum						Minimum						Minimum
1	4.50					4.50	1.00					1.00	7.61					7.61	171.76					171.76
2	4.50					4.50	1.00					1.00	7.61					7.61	163.69					163.69
3	4.50					4.50	1.00					1.00	8.62					8.62	193.56					193.56
4	4.50					4.50	1.00					1.00	10.16					10.16	183.74					183.74
5	4.50					4.50	1.00					1.00	7.64					7.64	161.09					161.09
6	4.50					4.50	1.00					1.00	6.09					6.09	119.76					119.76
7	4.50					4.50	1.00					1.00	7.97					7.97	146.84					146.84
8	4.50					4.50	1.00					1.00	7.75					7.75	152.60					152.60
9	4.50					4.50	1.00					1.00	9.65					9.65	141.20					141.20
10	4.50					4.50	1.00					1.00	7.89					7.89	132.81					132.81
11	4.50					4.50	1.00					1.00	9.78					9.78	141.14					141.14
12	4.50					4.50	1.00					1.00	11.21					11.21	171.76					171.76
13	4.50					4.50	1.00					1.00	8.13					8.13	179.15					179.15
14	4.50					4.50	1.00					1.00	8.50					8.50	181.14					181.14
15	4.50					4.50	1.00					1.00	9.79					9.79	170.82					170.82
16	4.50					4.50	1.00					1.00	7.46					7.46	169.92					169.92
17	4.50					4.50	1.00					1.00	6.59					6.59	151.91					151.91
18	4.50					4.50	1.00					1.00	8.40					8.40	173.52					173.52
19	4.50					4.50	1.00					1.00	10.56					10.56	205.99					205.99
20	4.50					4.50	1.00					1.00	10.19					10.19	138.70					138.70
21	4.50					4.50	1.00					1.00	6.46					6.46	113.69					113.69
22	4.50					4.50	1.00					1.00	5.26					5.26	83.89					83.89
23	4.50					4.50	1.00					1.00	9.42					9.42	205.99					205.99
24	4.50					4.50	1.00					1.00	7.46					7.46	138.70					138.70
25	4.50					4.50	1.00					1.00	6.46					6.46	113.69					113.69
26	4.50					4.50	1.00					1.00	7.08					7.08	118.19					118.19
27	4.50					4.50	1.00					1.00	12.40					12.40	198.65					198.65
28	4.50					4.50	1.00					1.00	8.70					8.70	182.96					182.96
29	4.50					4.50	1.00					1.00	11.21					11.21	176.68					176.68
30	4.50					4.50	1.00					1.00	11.78					11.78	212.52					212.52
31	4.50					4.50	1.00					1.00	5.77					5.77	132.88					132.88
MIN	4.50					4.50	1.00					1.00	5.26					5.26	83.89					83.89
AVG	4.50					4.50	1.00					1.00	8.50					8.50	159.00					159.00
MAX	4.50					4.50	1.00					1.00	12.40					12.40	212.52					212.52