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 Utilities

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022

Plant ID No.: 20831

Report for the Month of: July 2019

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: Adolfo V

Certificate No. & Grade: WS0012618, C

Date: August 10, 2019

TREATMENT PLANT PERFORMANCE

Total number of turbidity readings:	139	Number of 4-hour periods when plant was off-line:	47
Number of readings above 0.10 NTU:	1	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:	6.95
		Average log inactivation) (including UV) for viruses:	98.02
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:	6.60
		Number of days with pH below 7.0 in the last disinfection zone:	22.00
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:	43 (at least 31 required) (8)		
Average disinfectant residual value:	1.82	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:	7.90 NTU	Average turbidity value:	1.93 NTU
	Minimum turbidity reading:	0.26 NTU	Standard deviation:	1.423 NTU
	95th percentile value:	4.40 NTU		
IFE Stastical Summary	Maximum IFE turbidity reading:	0.24 NTU	Average IFE turbidity value:	0.07 NTU
	Minimum IFEturbidity reading:	0.03 NTU	Standard deviation:	0.031 NTU
	95th percentile IFE value:	0.12 NTU		
CFE Stastical Summary	Maximum CFE turbidity reading:	0.11 NTU	Average CFE turbidity value:	0.07 NTU
	Minimum CFE turbidity reading:	0.02 NTU	Standard deviation:	0.024 NTU
	95th percentile CFE value:	0.10 NTU		

STATISTICAL ANALYSIS OF pH DATA

Last Zone pH Stastical Summary	Maximum pH reading:	7.70 pH	Average pH value:	6.94 pH
	Minimum pH reading:	6.60 pH	Standard deviation:	0.182 pH
	95th percentile value:	7.09 pH		

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 Utilities

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022 Plant ID No.: 20831 Connections: 1,939

Month: July Year: 2019 Population: 6,786

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	1.098	1.020	25	120	2.3	5.2					0.05	X	X	0.05	0.06	0.05	2.9	
2	1.103	0.995	22	120	3.5	3.0					0.07	X	X	0.08	0.09	0.09	1.3	
3	1.084	1.000	17	100	4.4	1.7					0.09	X	X	0.09	0.09	0.09	2.6	
4	1.019	1.070	17	120	2.0	0.6					0.09	X	X	0.10	0.10	0.10	1.3	
5	1.222	1.162	12	120	3.7	0.4					0.09	X	X	0.06	0.09	0.09	2.7	
6	1.263	1.173	14	100	3.8	3.6					0.05	X	X	0.04	0.04	0.04	2.3	
7	1.182	1.165	12	100	0.6	0.3					0.05	X	0.03	0.03	0.05	0.05	2.9	
8	1.236	1.119	11	100	0.6	0.5					0.08	X	0.08	0.08	0.08	0.09	2.8	
9	1.136	1.047	9	120	0.5	0.5					0.09	X	X	0.09	0.09	0.10	1.5	
10	0.987	0.911	7	120	0.5	1.0					0.11	X	X	0.10	0.10	0.10	1.4	
11	1.034	0.941	13	140	0.3	0.3					X	X	0.09	0.09	0.09	0.09	2.7	
12	1.038	1.015	11	120	2.1	1.3					X	X	0.08	0.08	0.07	0.05	1.3	
13	1.118	0.985	11	120	1.5	2.6					0.06	X	X	0.04	0.04	0.03	2.8	
14	1.083	1.020	32	120	1.5	1.3					0.04	X	X	0.03	0.03	0.03	2.8	
15	1.203	1.163	11	120	1.0	1.2					0.08	X	X	0.07	0.08	0.09	2.7	
16	1.273	1.049	9	120	1.0	1.2					0.09	0.10	X	0.07	0.08	0.08	2.8	
17	1.124	1.131	7	120	1.0	1.2					0.09	X	0.10	0.09	0.09	0.09	2.7	
18	1.202	1.100	6	120	1.0	1.2					0.10	X	X	0.09	0.09	0.09	2.8	
19	1.185	1.080	16	120	1.0	1.2					0.09	X	X	0.08	0.07	0.06	3.0	
20	1.148	1.064	15	120	1.2	4.5					0.05	X	0.05	0.04	0.03	0.03	2.8	
21	1.178	1.118	16	120	2.4	4.2					0.03	X	0.04	0.03	0.02	0.05	2.8	
22	1.128	1.049	18	120	1.1	2.3					0.05	X	0.04	0.06	0.05	0.06	2.7	
23	1.037	0.897	14	120	1.9	3.0					0.05	X	0.07	0.10	0.09	0.09	2.0	
24	1.023	1.038	12	120	1.0	7.9					X	X	0.10	0.09	0.10	0.10	2.5	
25	1.063	1.050	20	120	1.5	2.0					0.09	X	0.09	0.09	0.09	0.09	2.5	
26	1.251	1.164	16	120	2.7	1.5					0.09	X	0.08	0.07	0.06	0.05	2.0	
27	1.205	1.155	22	120	3.5	1.5					0.05	X	0.06	0.05	0.05	0.04	2.9	
28	1.188	1.161	12	120	3.1	1.3					0.04	X	0.05	0.04	0.03	0.03	3.1	
29	1.193	1.228	21	120	2.7	1.2					0.04	X	0.05	0.05	0.05	0.05	2.4	
30	1.201	1.152	17	120	2.7	1.7					0.06	X	0.09	0.09	0.09	0.09	2.1	
31	1.178	1.057	25	120	3.5	1.1					0.09	X	0.09	0.09	0.09	0.09	1.5	
Total	35.383	33.279		Max	4.4	7.9												
Avg	1.141	1.074		Avg	1.9	1.9												
Max	1.273	1.228		95th %	3.8	4.9												
Min	0.987	0.897		Min	0.3	0.3												
				95th percentile based on data from all basins						4.4								

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: Webb. Certificate No. and Grade: WS0012618, C Date: August 10, 2019

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 Utilities

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022 Plant ID No.: 20831 Month: July Year: 2019

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		0.06		0.08		0.06													
2	0.08		0.08		0.08		0.04													
3	0.05		0.03		0.06		0.08													
4	0.06		0.06		0.08		0.05													
5	0.12		0.05		0.08		0.06													
6	0.07		0.04		0.11		0.03													
7	0.06		0.06		0.06		0.05													
8	0.08		0.06		0.08		0.04													
9	0.06		0.08		0.07		0.07													
10	0.06		0.04		0.05		0.06													
11	0.11		0.04		0.08		0.05													
12	0.07		0.04		0.07		0.04													
13	0.08		0.04		0.05		0.04													
14	0.08		0.05		0.08		0.04													
15	0.08		0.06		0.09		0.07													
16	0.08		0.06		0.06		0.05													
17	0.08		0.05		0.06		0.05													
18	0.06		0.07		0.09		0.08													
19	0.07		0.05		0.04		0.05													
20	0.06		0.05		0.05		0.05													
21	0.06		0.05		0.05		0.05													
22	0.20		0.19		0.15		0.24													
23	0.14		0.10		0.12		0.10													
24	0.08		0.06		0.08		0.08													
25	0.08		0.08		0.07		0.06													
26	0.08		0.06		0.06		0.06													
27	0.06		0.04		0.04		0.06													
28	0.08		0.03		0.04		0.04													
29	0.05		0.05		0.05		0.05													
30	0.06		0.06		0.06		0.06													
31	0.06		0.07		0.07		0.05													

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: Certificate No. and Grade: WS0012618, C Date: August 10, 2019

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 Utilities

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022 Plant ID No.: 20831 Month: July Year: 2019

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*	0.8	0.733	28.7	6.9				
	FCL *D1B*	0.7	0.733	29.0	6.9				
	FCL *D2*	0.7	0.366	29.1	7.0	4.95	100.06	9.90	
	CLA *D3*	3.2	0.733	30.6	6.9			(G)	
	D4								
2	FCL *D1A*	0.6	0.746	28.7	6.9				
	FCL *D1B*	0.8	0.746	29.1	6.8				
	FCL *D2*	0.9	0.373	28.0	7.0	5.08	106.13	10.16	
	CLA *D3*	2.9	0.746	29.3	6.9			(G)	
	D4								
3	FCL *D1A*	0.9	0.750	27.3	6.9				
	FCL *D1B*	1.1	0.750	27.5	6.9				
	FCL *D2*	0.6	0.375	28.0	7.1	4.10	84.55	8.20	
	CLA *D3*	2.6	0.750	29.0	6.9			(G)	
	D4								
4	FCL *D1A*	0.6	0.758	27.0	7.1				
	FCL *D1B*	0.7	0.758	27.1	7.0				
	FCL *D2*	0.5	0.379	28.2	7.0	3.52	69.00	7.03	
	CLA *D3*	2.6	0.758	29.2	7.0			(G)	
	D4								
5	FCL *D1A*	0.2	0.744	27.8	6.8				
	FCL *D1B*	0.3	0.744	27.1	6.9				
	FCL *D2*	0.8	0.372	28.2	6.9	4.12	78.35	8.24	
	CLA *D3*	3.0	0.744	27.7	6.9			(G)	
	D4								
6	FCL *D1A*	0.4	0.732	27.2	7.1				
	FCL *D1B*	0.4	0.732	27.2	7.0				
	FCL *D2*	0.7	0.366	28.4	7.0	4.06	80.74	8.12	
	CLA *D3*	2.9	0.732	27.6	7.0			(G)	
	D4								
7	FCL *D1A*	0.4	0.724	25.8	6.9				
	FCL *D1B*	0.5	0.724	25.8	7.0				
	FCL *D2*	0.7	0.362	27.2	7.0	4.16	80.29	8.33	
	CLA *D3*	3.2	0.724	28.0	6.9			(G)	
	D4								
8	FCL *D1A*	0.6	0.726	27.8	6.9				
	FCL *D1B*	0.4	0.726	27.8	6.9				
	FCL *D2*	0.8	0.363	28.0	6.9	4.82	94.55	9.63	
	CLA *D3*	3.2	0.726	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*	0.4	0.734	26.5	7.3				
	FCL *D1B*	0.4	0.734	26.1	7.1				
	FCL *D2*	0.8	0.367	28.5	7.1	4.10	88.25	8.20	
	CLA *D3*	2.6	0.734	30.1	7.0			(G)	
	D4								
10	FCL *D1A*	0.4	0.730	28.0	7.0				
	FCL *D1B*	0.6	0.730	28.2	7.2				
	FCL *D2*	1.0	0.365	27.3	7.1	4.80	102.67	9.60	
	CLA *D3*	2.9	0.730	29.4	7.1			(G)	
	D4								
11	FCL *D1A*	0.2	0.721	28.4	6.9				
	FCL *D1B*	0.3	0.721	28.7	6.8				
	FCL *D2*	0.7	0.360	28.2	6.9	4.14	80.27	8.28	
	CLA *D3*	2.8	0.721	28.9	6.9			(G)	
	D4								
12	FCL *D1A*	0.2	0.732	27.2	7.0				
	FCL *D1B*	0.2	0.732	27.5	7.0				
	FCL *D2*	0.5	0.366	27.0	7.0	2.97	53.01	5.95	
	CLA *D3*	2.8	0.732	28.8	7.1			(G)	
	D4								
13	FCL *D1A*	0.1	0.739	26.7	7.0				
	FCL *D1B*	0.4	0.739	28.1	7.0				
	FCL *D2*	0.5	0.369	28.1	7.2	2.82	51.88	5.65	
	CLA *D3*	2.9	0.739	29.8	7.0			(G)	
	D4								
14	FCL *D1A*	0.3	0.743	27.6	7.1				
	FCL *D1B*	0.6	0.743	28.2	6.9				
	FCL *D2*	0.3	0.372	27.6	7.1	2.52	43.19	5.04	
	CLA *D3*	2.8	0.743	29.6	6.9			(G)	
	D4								
15	FCL *D1A*	0.3	0.747	26.0	7.0				
	FCL *D1B*	0.6	0.747	27.0	6.8				
	FCL *D2*	0.4	0.373	28.0	7.0	2.76	48.69	5.53	
	CLA *D3*	2.8	0.747	24.0	7.7			(G)	
	D4								
16	FCL *D1A*	0.5	0.745	28.1	7.1				
	FCL *D1B*	0.8	0.745	27.6	7.1				
	FCL *D2*	0.7	0.373	29.5	7.0	4.58	91.68	9.15	
	CLA *D3*	3.4	0.745	30.2	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: Adolio Vasquez

Certificate No. and Grade: WS0012618, C

Date: August 10, 2019

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 Utilities

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022 Plant ID No.: 20831 Month: July Year: 2019

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*	1.4	0.723	28.2	7.2				
	FCL *D1B*	1.7	0.723	27.6	7.2				
	FCL *D2*	1.3	0.361	29.2	7.1	7.35	180.48	14.71	
	CLA *D3*	3.1	0.723	29.7	6.9			(G)	
	D4								
18	FCL *D1A*	1.1	0.737	29.8	7.0				
	FCL *D1B*	1.3	0.737	28.6	6.7				
	FCL *D2*	1.5	0.369	30.6	7.0	8.63	208.96	17.25	
	CLA *D3*	3.1	0.737	30.5	7.0			(G)	
	D4								
19	FCL *D1A*	0.7	0.743	28.5	6.8				
	FCL *D1B*	0.9	0.743	28.7	6.8				
	FCL *D2*	1.0	0.372	27.7	6.4	6.30	116.05	12.61	
	CLA *D3*	3.3	0.743	30.2	6.6			(G)	
	D4								
20	FCL *D1A*	1.1	0.752	28.8	6.9				
	FCL *D1B*	1.2	0.752	29.1	6.9				
	FCL *D2*	1.1	0.376	28.1	7.0	6.41	143.54	12.83	
	CLA *D3*	2.8	0.752	28.7	6.9			(G)	
	D4								
21	FCL *D1A*	1.1	0.765	28.1	6.8				
	FCL *D1B*	0.9	0.765	28.4	6.9				
	FCL *D2*	1.1	0.382	26.6	6.9	5.53	118.49	11.07	
	CLA *D3*	2.8	0.765	27.9	6.7			(G)	
	D4								
22	FCL *D1A*	0.8	0.759	29.1	7.1				
	FCL *D1B*	0.9	0.759	28.4	7.1				
	FCL *D2*	1.1	0.379	28.2	7.1	5.68	132.83	11.36	
	CLA *D3*	2.7	0.759	29.3	6.9			(G)	
	D4								
23	FCL *D1A*	0.4	0.769	27.3	6.7				
	FCL *D1B*	0.2	0.769	27.9	6.7				
	FCL *D2*	0.0	0.384	25.7	6.8	1.05	10.37	2.11	
	CLA *D3*	2.1	0.769	28.0	6.7			(G)	
	D4								
24	FCL *D1A*	0.2	0.755	28.5	6.8				
	FCL *D1B*	0.2	0.755	28.0	6.7				
	FCL *D2*	0.7	0.378	27.7	6.8	4.03	75.52	8.06	
	CLA *D3*	2.8	0.755	30.1	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*	0.4	0.754	27.3	7.0				
	FCL *D1B*	0.3	0.754	27.1	7.0				
	FCL *D2*	0.8	0.377	27.0	6.9	4.03	79.35	8.06	
	CLA *D3*	2.8	0.754	27.1	6.9			(G)	
	D4								
26	FCL *D1A*	0.6	0.763	26.7	7.1				
	FCL *D1B*	0.7	0.763	27.1	6.7				
	FCL *D2*	0.8	0.382	27.2	7.2	4.29	90.51	8.57	
	CLA *D3*	3.3	0.763	27.7	7.0			(G)	
	D4								
27	FCL *D1A*	0.9	0.768	27.5	7.1				
	FCL *D1B*	1.2	0.768	26.2	7.2				
	FCL *D2*	1.2	0.384	28.0	7.1	5.89	134.26	11.79	
	CLA *D3*	3.3	0.768	28.0	7.0			(G)	
	D4								
28	FCL *D1A*	0.9	0.723	28.1	6.9				
	FCL *D1B*	1.0	0.723	28.6	6.8				
	FCL *D2*	1.0	0.361	27.1	6.9	6.03	123.51	12.06	
	CLA *D3*	3.5	0.723	28.9	6.7			(G)	
	D4								
29	FCL *D1A*	1.0	0.722	28.8	7.1				
	FCL *D1B*	1.3	0.722	27.6	7.1				
	FCL *D2*	1.1	0.361	28.1	7.1	6.10	142.04	12.20	
	CLA *D3*	3.1	0.722	29.2	7.1			(G)	
	D4								
30	FCL *D1A*	1.0	0.710	29.0	7.0				
	FCL *D1B*	1.0	0.710	29.0	7.1				
	FCL *D2*	1.0	0.355	29.0	7.1	6.26	143.70	12.51	
	CLA *D3*	3.0	0.710	29.0	7.0			(G)	
	D4								
31	FCL *D1A*	0.8	0.713	28.9	7.2				
	FCL *D1B*	1.0	0.713	28.6	7.0				
	FCL *D2*	0.5	0.356	28.4	7.2	4.29	85.06	8.57	
	CLA *D3*	3.5	0.713	28.7	7.0			(G)	
	D4								

	Giardia Log	Virus Log	Inact. Ratio
Max	8.63	208.96	17.25
Min	1.05	10.37	2.11
Avg	4.69	98.00	9.38
SD	1.51	40.18	3.01

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

SUBMITTED BY: Adolfo Vasquez

Certificate No. and Grade: WS0012618, C

Date: August 10, 2019

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 Utilities

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022

Plant ID No.: 20831

Month: July

Year: 2019

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	7/17	120	3.41	2.84	16.7	25	0.67			0.67
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	3.41	2.84	16.72		0.67			0.67
Max		120.00	3.41	2.84	16.72		0.67			0.67
Min		120.00	3.41	2.84	16.72		0.67			0.67

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	3.41	2.84	16.7	NA	0.67

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: Adolfo Vae

Certificate No. and Grade: WS0012618, C

Date: August 10, 2019

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 Utilities

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022 Plant ID No.: 20831 Month: July Year: 2019

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)
1	1	0.461	0.654	86.22	0.00	1.00	0.00	0.006	0.25
	2	0.599	0.891	86.22	0.00	1.00	0.00	0.009	
	3	X	X	X	X	X	X	X	
	4								
	5								
2	1	0.464	0.685	84.85	0.00	1.00	0.00	0.005	0.25
	2	0.598	0.916	84.85	0.00	1.00	0.00	0.007	
	3	X	X	X	X	X	X	X	
	4								
	5								
3	1	0.450	0.707	83.78	7.29	1.00	7.29	0.000	0.25
	2	0.587	0.974	83.78	1.99	1.00	1.99	0.008	
	3	X	X	X	X	X	X	X	
	4								
	5								
4	1	0.422	0.696	82.49	26.92	1.00	26.92	0.000	0.000
	2	0.547	0.937	82.49	22.98	1.00	22.98	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
5	1	0.500	0.660	84.93	31.19	1.00	31.19	0.000	0.25
	2	0.651	0.875	84.93	2.29	1.00	2.29	0.009	
	3	X	X	X	X	X	X	X	
	4								
	5								
6	1	0.522	0.662	84.22	28.89	1.00	28.89	0.000	0.000
	2	0.677	0.889	84.22	25.01	1.00	25.01	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
7	1	0.498	0.852	85.07	1.81	1.00	1.81	0.007	0.25
	2	0.646	1.113	85.07	23.59	1.00	23.59	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
8	1	0.525	0.916	86.98	25.96	1.00	25.96	0.000	0.000
	2	0.682	1.226	86.98	19.27	1.00	19.27	0.000	
	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)
9	1	0.451	0.686	88.30	31.56	1.00	31.56	0.000	0.000
	2	0.589	0.911	88.30	27.08	1.00	27.08	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
10	1	0.420	0.638	88.96	0.00	1.00	0.00	0.003	0.25
	2	0.558	0.862	88.96	0.00	1.00	0.00	0.004	
	3	X	X	X	X	X	X	X	
	4								
	5								
11	1	0.422	0.674	89.18	30.14	1.00	30.14	0.000	0.000
	2	0.554	0.901	89.18	25.51	1.00	25.51	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
12	1	0.427	0.639	90.23	0.00	1.00	0.00	0.001	0.25
	2	0.563	0.854	90.23	0.00	1.00	0.00	0.001	
	3	X	X	X	X	X	X	X	
	4								
	5								
13	1	0.454	0.697	89.25	32.49	1.00	32.49	0.000	0.000
	2	0.595	0.951	89.25	15.13	1.00	15.13	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
14	1	0.447	0.717	89.76	27.72	1.00	27.72	0.000	0.000
	2	0.588	0.936	89.76	27.30	1.00	27.30	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
15	1	0.463	0.705	89.49	0.00	1.00	0.00	0.005	0.25
	2	0.611	0.929	89.49	0.00	1.00	0.00	0.007	
	3	X	X	X	X	X	X	X	
	4								
	5								
16	1	0.521	0.679	88.91	0.00	1.00	0.00	0.004	0.25
	2	0.687	0.899	88.91	0.00	1.00	0.00	0.005	
	3	X	X	X	X	X	X	X	
	4								
	5								

SUBMITTED BY: Adolio Vasquez

Certificate No. and Grade: WS0012618, C Date: August 10, 2019

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 Utilities

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022 Plant ID No.: 20831 Month: July Year: 2019

TRUE

VALIDATED OPERATIONAL CONDITIONS

VALIDATED PARAMETERS						PERFORMANCE REQUIREMENTS	
Parameters	Reactor Number UVCD1	UVCD2	UVCD3	UVCD4	UVCD5	Crypto Log Inactivation	Required UV Dose (mJ/cm²)
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/cm²)	Sensor CF	Adjusted Minimum UV Dose (mJ/cm²)	Total Off-Spec Product. (MG)	Consec. Off-Spec Hours (hr)
17	1	0.467	0.830	89.59	17.89	1.00	17.89	0.000	0.000
	2	0.619	1.099	89.59	23.70	1.00	23.70	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
18	1	0.480	0.667	89.23	33.23	1.00	33.23	0.000	0.000
	2	0.633	0.880	89.23	13.92	1.00	13.92	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
19	1	0.496	0.738	88.91	30.24	1.00	30.24	0.000	0.25
	2	0.649	0.984	88.91	0.00	1.00	0.00	0.009	
	3	X	X	X	X	X	X	X	
	4								
	5								
20	1	0.475	0.739	88.27	1.93	1.00	1.93	0.007	0.25
	2	0.662	0.997	88.27	17.45	1.00	17.45	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
21	1	0.484	0.677	88.22	28.93	1.00	28.93	0.000	0.000
	2	0.631	0.892	88.22	23.26	1.00	23.26	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
22	1	0.459	0.675	89.05	29.29	1.00	29.29	0.000	0.000
	2	0.596	0.915	89.05	27.31	1.00	27.31	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
23	1	0.424	0.680	86.34	0.00	1.00	0.00	0.008	0.25
	2	0.551	0.889	86.34	0.00	1.00	0.00	0.020	
	3	X	X	X	X	X	X	X	
	4								
	5								
24	1	0.434	0.694	88.25	0.00	1.00	0.00	0.005	0.25
	2	0.553	0.902	88.25	0.00	1.00	0.00	0.006	
	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/cm²)	Sensor CF	Adjusted Minimum UV Dose (mJ/cm²)	Total Off-Spec Product. (MG)	Consec. Off-Spec Hours (hr)
25	1	0.457	0.700	88.93	22.91	1.00	22.91	0.000	0.000
	2	0.576	0.923	88.93	25.06	1.00	25.06	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
26	1	0.498	0.683	86.40	3.17	1.00	3.17	0.000	0.000
	2	0.649	0.919	86.40	26.91	1.00	26.91	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
27	1	0.497	0.695	87.35	31.02	1.00	31.02	0.000	0.000
	2	0.653	0.947	87.35	19.03	1.00	19.03	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
28	1	0.492	0.666	86.39	0.00	1.00	0.00	0.007	0.25
	2	0.641	0.905	86.39	0.00	1.00	0.00	0.009	
	3	X	X	X	X	X	X	X	
	4								
	5								
29	1	0.504	0.658	86.08	0.00	1.00	0.00	0.002	0.25
	2	0.660	0.871	86.08	0.00	1.00	0.00	0.011	
	3	X	X	X	X	X	X	X	
	4								
	5								
30	1	0.472	0.633	84.17	0.00	1.00	0.00	0.019	0.50
	2	0.617	0.856	84.17	28.73	1.00	28.73	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
31	1	0.460	0.633	86.22	6.38	1.00	6.38	0.000	
	2	0.557	0.858	86.22	28.57	1.00	28.57	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								

SUBMITTED BY: Adolio Vasquez

Certificate No. and Grade: WS0012618, C Date: August 10, 2019

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 Utilities

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022 Plant ID No.: 20831 Month: July Year: 2019

DAILY MINIMUM INACTIVATION

Reactor Range	SUMMARY DATA					Reactor Range	SUMMARY DATA				
	Date	Min Dose (mJ/cm²)	Inactivation Credit Achieved Giardia Log	Virus Log	Crypto Log		Date	Min Dose (mJ/cm²)	Min Inactivation Giardia Log	Virus Log	Crypto Log
1 to 3	1	0.00*	1.00	0.00	1.00	1 to 3	9	27.08	4.00	0.14	1.00
	2	0.00*	1.00	0.00	1.00		10	0.00*	1.00	0.00	1.00
	3	1.99*	1.00	0.00	1.00		11	25.51	4.00	0.09	1.00
	4	22.98	4.00	0.01	1.00		12	0.00*	1.00	0.00	1.00
	5	2.29*	1.13	0.00	1.00		13	15.13	3.51	0.00	1.00
	6	25.01	4.00	0.08	1.00		14	27.30	4.00	0.15	1.00
	7	1.81*	1.00	0.00	1.00		15	0.00*	1.00	0.00	1.00
	8	19.27	3.80	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/cm²)	Min Inactivation Giardia Log	Virus Log	Crypto Log		Date	Min Dose (mJ/cm²)	Min Inactivation Giardia Log	Virus Log	Crypto Log
1 to 3	17	17.89	3.71	0.00	1.00	1 to 3	25	22.91	4.00	0.01	1.00
	18	13.92	3.37	0.00	1.00		26	3.17	1.57	0.00	1.00
	19	0.00*	1.00	0.00	1.00		27	19.03	3.79	0.00	1.00
	20	1.93*	1.00	0.00	1.00		28	0.00*	1.00	0.00	1.00
	21	23.26	4.00	0.02	1.00		29	0.00*	1.00	0.00	1.00
	22	27.31	4.00	0.15	1.00		30	0.00*	1.00	0.00	1.00
	23	0.00*	1.00	0.00	1.00		31	6.38	2.24	0.00	1.00
	24	0.00*	1.00	0.00	1.00						

Total volume of water treated by all CDA reactors:	33.53	MG
Total volume of off-spec water produced by all CDA reactors:	0.18	MG
Percentage of off-spec water produced by all CDA reactors:	0.55	%
Crypto Log-Inactivation Credit for treatment by CDA reactors:	1.00	log

Raw water pumpage and total production by all UV reactors differ by more than 15% on these days:

SUBMITTED BY: Adolio Vasquez

Certificate No. and Grade: WS0012618, C Date: August 10, 2019

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 Utilities

PLANT NAME OR NUMBER: Rio Bravo

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

Month: July Year: 2019

CALIBRATION DATA

UV Sensor Calibration Report for Calculated Dose Reactors

CDA Reactor Number	Calibration Date and Data	Duty Sensor	Duty Sensor Serial #	Ref Sensor Serial #	Duty Sensor Reading (mJ/cm²)	Ref Sensor Reading (mJ/cm²)	Cal Ratio	Duty Sensor Replaced?	Calculated Sensor CF
UVCD No. 1	Previous Month's Sensor CF	1	92	44	60.50	58.40	1.04	NA	1.00
		2							
		3							
	1.00	4							
	Calibration Date	5							
		6							
	7/1/19	7							
	New Sensor CF	8							
		9							
	1.00	10							
UVCD No. 2	Previous Month's Sensor CF	1	38	44	66.60	60.70	1.10	NA	1.00
		2							
		3							
	1.00	4							
	Calibration Date	5							
		6							
	7/1/19	7							
	New Sensor CF	8							
		9							
	1.00	10							
UVCD No. 3	Previous Month's Sensor CF	1	39	44	63.80	60.10	1.06		off-line
		2							
		3							
	1.00	4							
	Calibration Date	5							
		6							
	7/1/19	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

UV Sensor Calibration Report for Calculated Dose Reactors

CDA Reactor Number	Calibration Date	Duty Sensor	Duty Sensor Serial #	Ref Sensor Serial #	Duty Sensor Reading (mJ/cm²)	Ref Sensor Reading (mJ/cm²)	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: Adolio Vasquez

Certificate No. and Grade: WS0012618, C

Date: August 10, 2019

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 Utilities

PLANT NAME OR NUMBER: Rio Bravo

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

Month: July Year: 2019

CALIBRATION DATA

UV Sensor Calibration Report for Calculated Dose Reactors

CDA Reactor Number	Calibration Date	Duty Sensor	Duty Sensor Serial #	Ref Sensor Serial #	Duty Sensor Reading (mJ/cm²)	Ref Sensor Reading (mJ/cm²)	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

UV Sensor Calibration Report for Calculated Dose Reactors

CDA Reactor Number	Calibration Date	Duty Sensor	Duty Sensor Serial #	Ref Sensor Serial #	Duty Sensor Reading (mJ/cm²)	Ref Sensor Reading (mJ/cm²)	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							

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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 Utilities

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022

Plant ID: 20831

Month: July

Year: 2019

NA

CALIBRATION DATA

Benchtop UVT Analyzer Serial Number: UVT08-P0108955

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
UVT No. 1	1	7/1/19	78713	88.80	89.60	0.80	NA	NA
	2	7/8/19	78713	90.10	90.50	0.40	NA	NA
	3	7/15/19	78713	90.10	91.10	1.00	NA	NA
	4	7/22/19	78713	89.30	90.70	1.40	NA	NA
	5	7/28/19	78713	88.70	90.10	1.40	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

Benchtop UVT Analyzer Serial Number: UVT08-P0108955

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
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: Adolio Vasquez

Certificate No. and Grade: WS0012618, C

Date: August 10, 2019

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 Utilities

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022 Plant ID No.: 20831 Month: July Year: 2019

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 Utilities

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022 Plant ID No.: 20831 Month: July Year: 2019

	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					Minimum	TRUE					Minimum	TRUE					Minimum	TRUE					Minimum
Train 2		FALSE						FALSE						FALSE						FALSE				
Train 3			FALSE						FALSE						FALSE						FALSE			
Train 4				FALSE						FALSE						FALSE						FALSE		
Train 5					FALSE						FALSE						FALSE						FALSE	
1	4.50					4.50	1.00					1.00	5.95					5.95	100.06					100.06
2	4.50					4.50	1.00					1.00	5.95					5.95	106.13					106.13
3	4.50					4.50	1.00					1.00	5.10					5.10	84.55					84.55
4	4.50					4.50	1.00					1.00	7.52					7.52	69.01					69.01
5	4.50					4.50	1.00					1.00	5.25					5.25	78.35					78.35
6	4.50					4.50	1.00					1.00	8.06					8.06	80.82					80.82
7	4.50					4.50	1.00					1.00	5.16					5.16	80.29					80.29
8	4.50					4.50	1.00					1.00	8.62					8.62	94.55					94.55
9	4.50					4.50	1.00					1.00	8.10					8.10	88.39					88.39
10	4.50					4.50	1.00					1.00	5.80					5.80	102.67					102.67
11	4.50					4.50	1.00					1.00	8.14					8.14	80.37					80.37
12	4.50					4.50	1.00					1.00	3.97					3.97	53.01					53.01
13	4.50					4.50	1.00					1.00	6.33					6.33	51.88					51.88
14	4.50					4.50	1.00					1.00	6.52					6.52	43.34					43.34
15	4.50					4.50	1.00					1.00	3.76					3.76	48.69					48.69
16	4.50					4.50	1.00					1.00	5.58					5.58	91.68					91.68
17	4.50					4.50	1.00					1.00	11.06					11.06	180.48					180.48
18	4.50					4.50	1.00					1.00	11.99					11.99	208.96					208.96
19	4.50					4.50	1.00					1.00	7.30					7.30	116.05					116.05
20	4.50					4.50	1.00					1.00	7.41					7.41	143.54					143.54
21	4.50					4.50	1.00					1.00	9.53					9.53	118.51					118.51
22	4.50					4.50	1.00					1.00	9.68					9.68	132.98					132.98
23	4.50					4.50	1.00					1.00	2.05					2.05	10.37					10.37
24	4.50					4.50	1.00					1.00	5.03					5.03	75.52					75.52
25	4.50					4.50	1.00					1.00	8.03					8.03	79.36					79.36
26	4.50					4.50	1.00					1.00	5.85					5.85	90.51					90.51
27	4.50					4.50	1.00					1.00	9.68					9.68	134.26					134.26
28	4.50					4.50	1.00					1.00	7.03					7.03	123.51					123.51
29	4.50					4.50	1.00					1.00	7.10					7.10	142.04					142.04
30	4.50					4.50	1.00					1.00	7.26					7.26	143.70					143.70
31	4.50					4.50	1.00					1.00	6.52					6.52	85.06					85.06
MIN	4.50					4.50	1.00					1.00	2.05					2.05	10.37					10.37
AVG	4.50					4.50	1.00					1.00	6.95					6.95	98.02					98.02
MAX	4.50					4.50	1.00					1.00	11.99					11.99	208.96					208.96