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: March 2020

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: Luis A Lopez

Certificate No. & Grade: WS0014096, B

Date: April 10, 2020

TREATMENT PLANT PERFORMANCE

Total number of turbidity readings:	91	Number of 4-hour periods when plant was off-line:	95
Number of readings above 0.10 NTU:	0	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:	4.47
		Average log inactivation) (including UV) for viruses:	34.74
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:	6.72
		Number of days with pH below 7.0 in the last disinfection zone:	7.00
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:	2.20	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

Alternate Technol. UV–CDA UV–Sensor Data UV–UVT Analyzer

STATISTICAL ANALYSIS OF TURBIDITY DATA

Settled Water Stastical Summary	Maximum turbidity reading:	3.30 NTU	Average turbidity value:	0.85 NTU
	Minimum turbidity reading:	0.05 NTU	Standard deviation:	0.611 NTU
	95th percentile value:	1.69 NTU		
IFE Stastical Summary	Maximum IFE turbidity reading:	0.14 NTU	Average IFE turbidity value:	0.07 NTU
	Minimum IFEturbidity reading:	0.04 NTU	Standard deviation:	0.017 NTU
	95th percentile IFE value:	0.10 NTU		
CFE Stastical Summary	Maximum CFE turbidity reading:	0.08 NTU	Average CFE turbidity value:	0.06 NTU
	Minimum CFE turbidity reading:	0.04 NTU	Standard deviation:	0.009 NTU
	95th percentile CFE value:	0.07 NTU		

STATISTICAL ANALYSIS OF pH DATA

Last Zone pH Stastical Summary	Maximum pH reading:	7.22 pH	Average pH value:	7.06 pH
	Minimum pH reading:	6.72 pH	Standard deviation:	0.109 pH
	95th percentile value:	7.19 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:	1,932
Month: March	Year: 2020	Population:	6,762

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	0.980	0.891	29	140	1.2	1.1					X	X	X	0.04	0.06	0.04	2.8	
2	0.995	0.947	31	140	1.2	1.1					0.04	X	X	0.04	0.04	0.04	3.1	
3	0.843	0.635	16	140	1.2	1.4					0.05	X	X	0.04	0.05	0.06	2.6	
4	0.785	0.695	17	140	1.2	1.8					X	X	X	X	0.05	0.05	2.6	
5	0.886	0.770	23	140	1.2	1.5					X	X	X	0.05	0.06	0.06	2.5	
6	0.788	0.780	32	140	1.2	1.7					X	X	X	0.05	0.05	0.05	3.1	
7	0.881	0.732	21	140	1.2	1.3					X	X	X	0.05	0.05	0.06	3.1	
8	1.040	0.813	22	140	1.2	1.2					X	X	X	0.05	0.06	0.06	3.1	
9	0.794	0.751	24	140	1.5	3.3					0.05	X	X	0.06	0.05	0.05	3.1	
10	0.839	0.777	7	140	1.1	1.1					X	X	X	0.06	0.06	0.06	2.6	
11	0.903	0.905	7	140	1.0	1.0					X	X	X	X	0.07	0.08	2.9	
12	0.972	0.960	21	140	1.1	1.1					0.08	X	X	0.06	0.05	0.05	2.6	
13	0.936	0.939	41	140	1.1	1.1					X	X	X	0.05	0.05	0.06	2.9	
14	0.881	0.837	25	140	1.1	1.1					X	X	X	0.07	0.05	0.05	3.0	
15	0.916	0.690	26	140	1.1	1.1					0.05	X	X	0.05	0.05	0.05	2.9	
16	0.808	0.751	18	140	1.1	1.2					X	X	X	X	0.05	0.05	2.8	
17	0.746	0.659	16	140	0.1	0.1					X	X	X	X	0.05	0.06	2.5	
18	0.742	0.700	12	140	0.1	0.2					X	X	X	X	0.07	0.06	2.6	
19	0.826	0.776	14	140	0.1	0.1					X	X	X	0.05	0.05	0.07	2.9	
20	0.629	0.607	19	140	0.2	0.1					X	X	X	X	0.06	0.06	2.9	
21	0.806	0.724	18	140	0.2	0.1					X	X	X	X	0.06	0.06	2.1	
22	0.519	0.318	26	140	0.2	0.1					X	X	X	X	0.07	0.06	2.8	
23	0.931	0.808	14	140	0.1	0.1					X	X	X	0.05	0.05	0.05	2.3	
24	0.787	0.887	12	140	0.1	0.1					X	X	X	0.05	0.06	0.05	2.5	
25	0.796	1.016	40	140	0.1	0.1					X	X	X	0.05	0.07	0.05	2.0	
26	0.848	0.955	36	140	0.1	0.1					X	X	X	0.04	0.04	0.04	2.7	
27	1.121	1.076	22	140	1.1	1.1					0.05	X	X	0.07	0.06	0.07	3.2	
28	1.061	1.056	15	140	0.9	0.6					0.06	X	X	0.07	0.06	0.06	2.9	
29	0.871	0.759	14	140	1.8	0.6					X	X	X	0.07	0.06	0.07	3.0	
30	0.763	0.825	9	120	1.0	0.7					X	X	X	X	0.04	0.06	3.0	
31	0.912	0.974	3	120	1.0	0.6					X	X	X	0.06	0.06	0.05	2.8	
Total	26.605	25.013		Max	1.8	3.3												
Avg	0.858	0.807		Avg	0.8	0.9												
Max	1.121	1.076		95th %	1.4	1.7												
Min	0.519	0.318		Min	0.1	0.1												
				95th percentile based on data from all basins						1.7								

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: Luis G. Tapia

Certificate No. and Grade: WS0014096, B

Date: April 10, 2020

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: March Year: 2020

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	0.05		0.04		0.05		0.05													
2	0.05		0.05		0.06		0.05													
3	0.06		0.05		0.07		0.06													
4	0.06		0.06		0.06		0.06													
5	0.05		0.06		0.06		0.09													
6	0.04		0.04		0.06		0.06													
7	0.07		0.05		0.05		0.04													
8	0.08		0.05		0.06		0.06													
9	0.06		0.05		0.07		0.05													
10	0.06		0.08		0.12		0.06													
11	0.10		0.06		0.14		0.10													
12	0.06		0.06		0.08		0.08													
13	0.05		0.05		0.05		0.07													
14	0.05		0.05		0.06		0.06													
15	0.06		0.06		0.08		0.07													
16	0.06		0.06		0.06		0.06													
17	0.05		0.06		0.06		0.10													
18	0.05		0.06		0.08		0.05													
19	0.05		0.06		0.05		0.04													
20	0.06		0.06		0.08		0.06													
21	0.06		0.06		0.08		0.05													
22	0.06		0.08		0.06		0.05													
23	0.08		0.06		0.07		0.06													
24	0.07		0.05		0.07		0.06													
25	0.05		0.05		0.07		0.06													
26	0.06		0.06		0.09		0.10													
27	0.10		0.07		0.08		0.07													
28	0.07		0.08		0.08		0.07													
29	0.10		0.09		0.09		0.09													
30	0.08		0.12		0.08		0.08													
31	0.08		0.07		0.08		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: Luis G. Tapia

Certificate No. and Grade: WS0014096, B

Date: April 10, 2020

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: March Year: 2020

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	FCL D1A	0.2	0.814	18.3	7.2				
	FCL D1B	0.2	0.814	18.4	7.3				
	FCL D2	0.3	0.407	18.0	7.2	1.16	16.98	2.31	
	CLA D3	3.0	0.814	17.8	7.1			(G)	
	D4								
2	FCL D1A	0.7	0.841	19.7	7.2				
	FCL D1B	0.5	0.841	19.6	7.1				
	FCL D2	0.7	0.420	19.7	7.3	2.09	40.33	4.18	
	CLA D3	3.3	0.841	20.4	7.2			(G)	
	D4								
3	FCL D1A	0.5	0.826	19.8	7.1				
	FCL D1B	0.4	0.826	19.7	7.2				
	FCL D2	0.3	0.413	19.4	7.2	1.37	21.28	2.74	
	CLA D3	2.9	0.826	20.3	7.2			(G)	
	D4								
4	FCL D1A	0.7	0.793	20.7	7.2				
	FCL D1B	0.6	0.793	20.4	7.2				
	FCL D2	0.4	0.397	20.1	7.3	1.86	32.68	3.73	
	CLA D3	3.1	0.793	21.1	7.2			(G)	
	D4								
5	FCL D1A	0.2	0.777	19.0	7.2				
	FCL D1B	0.4	0.777	19.0	7.3				
	FCL D2	0.3	0.388	19.0	7.3	1.24	19.08	2.47	
	CLA D3	2.8	0.777	19.0	6.9			(G)	
	D4								
6	FCL D1A	0.9	0.750	20.2	6.9				
	FCL D1B	0.7	0.750	20.2	6.9				
	FCL D2	0.4	0.375	19.6	7.0	2.31	37.74	4.63	
	CLA D3	3.3	0.750	22.0	6.8			(G)	
	D4								
7	FCL D1A	0.5	0.744	19.7	7.2				
	FCL D1B	0.5	0.744	19.7	7.2				
	FCL D2	0.2	0.372	19.8	7.2	1.48	20.50	2.97	
	CLA D3	3.3	0.744	20.2	7.1			(G)	
	D4								
8	FCL D1A	0.6	0.757	20.1	7.2				
	FCL D1B	0.6	0.757	20.2	7.3				
	FCL D2	0.3	0.378	20.1	7.3	1.73	29.15	3.46	
	CLA D3	3.0	0.757	20.5	7.2			(G)	
	D4								

PERFORMANCE DATA

DISINFECTION PROCESS DATA

Date	Disinfectant	C (mg/L)	Flow (MGD)	Temp (°C)	pH	Giardia Log	Virus Log	Inact. Ratio	Time=
9	FCL D1A	0.4	0.770	20.0	7.1				
	FCL D1B	0.4	0.770	20.0	7.2				
	FCL D2	0.3	0.385	19.0	7.3	1.45	21.03	2.90	
	CLA D3	3.3	0.770	20.0	7.1			(G)	
	D4								
10	FCL D1A	0.5	0.781	20.0	7.3				
	FCL D1B	0.6	0.781	20.0	7.2				
	FCL D2	0.8	0.391	20.0	7.1	2.63	52.12	5.27	
	CLA D3	3.4	0.781	20.0	7.2			(G)	
	D4								
11	FCL D1A	0.8	0.778	21.0	7.2				
	FCL D1B	0.2	0.778	21.0	7.1				
	FCL D2	0.4	0.389	21.0	7.2	1.79	28.92	3.58	
	CLA D3	3.2	0.778	21.0	7.1			(G)	
	D4								
12	FCL D1A	0.5	0.767	20.2	7.1				
	FCL D1B	0.8	0.767	20.3	7.1				
	FCL D2	0.4	0.383	20.5	7.2	1.77	28.85	3.54	
	CLA D3	3.0	0.767	21.3	7.1			(G)	
	D4								
13	FCL D1A	0.5	0.760	21.5	7.0				
	FCL D1B	0.3	0.760	21.5	7.0				
	FCL D2	0.5	0.380	21.9	7.1	2.40	37.15	4.80	
	CLA D3	3.6	0.760	23.7	7.0			(G)	
	D4								
14	FCL D1A	0.4	0.776	22.4	7.1				
	FCL D1B	0.6	0.776	22.3	7.1				
	FCL D2	0.3	0.388	23.0	7.2	1.80	26.94	3.60	
	CLA D3	3.0	0.776	23.5	7.2			(G)	
	D4								
15	FCL D1A	0.6	0.784	22.2	7.1				
	FCL D1B	0.5	0.784	22.2	7.0				
	FCL D2	0.4	0.392	22.6	7.2	2.15	36.57	4.29	
	CLA D3	3.1	0.784	22.6	7.1			(G)	
	D4								
16	FCL D1A	0.3	0.823	22.4	7.2				
	FCL D1B	0.3	0.823	22.9	7.2				
	FCL D2	0.5	0.411	21.8	7.2	2.03	33.43	4.06	
	CLA D3	2.9	0.823	24.5	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: Luis G. Tapia

Certificate No. and Grade: WS0014096, B

Date: April 10, 2020

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: March Year: 2020

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*	0.6	0.830	22.9	7.2				
	FCL *D1B*	0.5	0.830	23.5	7.1				
	FCL *D2*	0.6	0.415	23.0	7.2	2.63	48.20	5.27	
	CLA *D3*	2.9	0.830	25.4	7.1			(G)	
	D4								
18	FCL *D1A*	0.5	0.805	22.7	7.1				
	FCL *D1B*	0.6	0.805	23.0	7.1				
	FCL *D2*	0.6	0.402	23.0	7.1	2.78	50.84	5.56	
	CLA *D3*	2.9	0.805	25.7	7.1			(G)	
	D4								
19	FCL *D1A*	0.3	0.780	22.9	6.6				
	FCL *D1B*	0.2	0.780	23.0	6.6				
	FCL *D2*	0.3	0.390	22.6	6.5	2.07	26.40	4.14	
	CLA *D3*	2.8	0.780	24.9	6.7			(G)	
	D4								
20	FCL *D1A*	0.2	0.790	20.4	7.1				
	FCL *D1B*	0.1	0.790	21.3	7.1				
	FCL *D2*	0.2	0.395	20.3	7.1	1.30	15.44	2.60	
	CLA *D3*	3.2	0.790	21.5	7.0			(G)	
	D4								
21	FCL *D1A*	0.6	0.805	19.0	7.1				
	FCL *D1B*	0.8	0.805	20.1	7.1				
	FCL *D2*	0.7	0.402	19.9	7.1	2.40	46.62	4.80	
	CLA *D3*	3.4	0.805	19.1	7.0			(G)	
	D4								
22	FCL *D1A*	1.0	0.822	20.0	7.2				
	FCL *D1B*	0.8	0.822	19.8	7.1				
	FCL *D2*	0.9	0.411	20.7	7.1	2.88	61.28	5.76	
	CLA *D3*	3.2	0.822	20.3	7.0			(G)	
	D4								
23	FCL *D1A*	1.1	0.850	22.6	7.1				
	FCL *D1B*	1.3	0.850	22.5	7.1				
	FCL *D2*	0.8	0.425	21.9	7.1	3.05	65.65	6.10	
	CLA *D3*	2.5	0.850	23.6	6.9			(G)	
	D4								
24	FCL *D1A*	0.9	0.819	21.2	7.1				
	FCL *D1B*	1.1	0.819	21.6	7.1				
	FCL *D2*	0.8	0.409	21.2	7.2	2.91	61.10	5.83	
	CLA *D3*	2.6	0.819	23.6	7.0			(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*	0.6	0.824	22.1	7.0				
	FCL *D1B*	0.6	0.824	22.2	7.0				
	FCL *D2*	0.3	0.412	21.8	7.1	1.87	29.35	3.75	
	CLA *D3*	2.7	0.824	24.3	7.0			(G)	
	D4								
26	FCL *D1A*	0.5	0.769	22.4	7.0				
	FCL *D1B*	0.5	0.769	22.6	7.0				
	FCL *D2*	0.2	0.384	22.4	7.1	1.94	26.73	3.88	
	CLA *D3*	3.1	0.769	24.5	7.1			(G)	
	D4								
27	FCL *D1A*	0.2	0.758	22.5	7.1				
	FCL *D1B*	0.5	0.758	22.6	7.0				
	FCL *D2*	0.2	0.379	22.1	7.2	1.68	20.21	3.35	
	CLA *D3*	3.3	0.758	23.7	7.0			(G)	
	D4								
28	FCL *D1A*	0.2	0.778	22.8	7.1				
	FCL *D1B*	0.3	0.778	22.8	7.0				
	FCL *D2*	0.3	0.389	22.7	7.2	1.82	27.17	3.63	
	CLA *D3*	3.3	0.778	22.3	7.1			(G)	
	D4								
29	FCL *D1A*	0.2	0.750	22.0	7.1				
	FCL *D1B*	0.3	0.750	22.2	7.0				
	FCL *D2*	0.5	0.375	21.9	7.3	2.08	36.20	4.16	
	CLA *D3*	3.1	0.750	22.0	7.1			(G)	
	D4								
30	FCL *D1A*	0.9	0.798	22.4	7.1				
	FCL *D1B*	0.7	0.798	22.4	7.1				
	FCL *D2*	0.7	0.399	21.9	7.2	2.73	53.77	5.46	
	CLA *D3*	3.1	0.798	22.4	7.1			(G)	
	D4								
31	FCL *D1A*	0.6	0.822	22.8	6.9				
	FCL *D1B*	0.6	0.822	22.8	6.9				
	FCL *D2*	0.2	0.411	22.4	7.1	1.66	24.23	3.31	
	CLA *D3*	2.8	0.822	23.5	7.0			(G)	
	D4								
					Max	3.05	65.65	6.10	
					Min	1.16	15.44	2.31	
					Avg	2.03	34.71	4.07	
					SD	0.52	13.75	1.04	

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

SUBMITTED BY: Luis G. Tapia

Certificate No. and Grade: WS0014096, B

Date: April 10, 2020

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: March

Year: 2020

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	3/3	140	4.43	2.46	44.5	25	1.78			1.78
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		140.00	4.43	2.46	44.47		1.78			1.78
Max		140.00	4.43	2.46	44.47		1.78			1.78
Min		140.00	4.43	2.46	44.47		1.78			1.78

TOTAL ORGANIC CARBON (TOC) REMOVAL SUMMARY

TOC Summary					Monthly Compliance Ratio
Raw Water Alkalinity	Raw Water TOC	Treated Water TOC	TOC % Removal	ACC # used	
140	4.43	2.46	44.5	NA	1.78

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: Luis A Garcia

Certificate No. and Grade: WS0014096, B

Date: April 10, 2020

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:** March **Year:** 2020

VALIDATED OPERATIONAL CONDITIONS

VALIDATED PARAMETERS						PERFORMANCE REQUIREMENTS	
	Reactor Number						
Parameters	UVCD1	UVCD2	UVCD3	UVCD4	UVCD5	Crypto Log Inactivation	Required UV Dose (mJ/cm^2)
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	0.331	0.823	88.15	0.00	1.00	0.00	0.007	0.25
	2	0.439	1.100	88.15	0.00	1.00	0.00	0.009	
	3	X	X	X	X	X	X	X	
	4								
	5								
2	1	0.344	0.818	93.43	35.75	1.00	35.75	0.000	0.25
	2	0.449	1.108	93.43	1.11	1.00	1.11	0.010	
	3	X	X	X	X	X	X	X	
	4								
	5								
3	1	0.315	0.777	85.78	32.51	1.00	32.51	0.000	0.000
	2	0.409	1.074	85.78	28.38	1.00	28.38	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
4	1	0.313	0.723	91.20	25.94	1.00	25.94	0.000	0.000
	2	0.409	0.959	91.20	18.49	1.00	18.49	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
5	1	0.308	0.700	90.23	17.05	1.00	17.05	0.000	0.000
	2	0.405	0.925	90.23	31.75	1.00	31.75	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
6	1	0.300	0.729	88.84	23.72	1.00	23.72	0.000	0.000
	2	0.401	0.981	88.84	31.76	1.00	31.76	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
7	1	0.297	0.689	84.32	38.63	1.00	38.63	0.000	0.25
	2	0.392	0.904	84.32	0.90	1.00	0.90	0.006	
	3	X	X	X	X	X	X	X	
	4								
	5								
8	1	0.313	0.695	89.54	37.36	1.00	37.36	0.000	0.000
	2	0.390	0.938	89.54	28.93	1.00	28.93	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)
	OPERATIONAL DATA								
9	1	0.278	0.927	90.15	31.37	1.00	31.37	0.000	0.25
	2	0.350	1.141	90.15	1.81	1.00	1.81	0.009	
	3	X	X	X	X	X	X	X	
	4								
	5								
10	1	0.292	0.932	89.93	0.00	1.00	0.00	0.001	0.25
	2	0.380	1.151	89.93	27.21	1.00	27.21	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
11	1	0.337	0.718	90.79	0.00	1.00	0.00	0.006	0.25
	2	0.433	0.965	90.79	0.00	1.00	0.00	0.007	
	3	X	X	X	X	X	X	X	
	4								
	5								
12	1	0.299	0.733	90.01	19.74	1.00	19.74	0.000	0.000
	2	0.393	0.938	90.01	32.17	1.00	32.17	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
13	1	0.292	0.735	89.89	34.32	1.00	34.32	0.000	0.000
	2	0.376	0.947	89.89	27.20	1.00	27.20	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
14	1	0.327	0.748	86.64	23.75	1.00	23.75	0.000	0.000
	2	0.422	1.023	86.64	27.98	1.00	27.98	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
15	1	0.288	0.788	87.66	32.14	1.00	32.14	0.000	0.000
	2	0.386	1.047	87.66	24.08	1.00	24.08	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
16	1	0.300	0.818	88.08	35.01	1.00	35.01	0.000	0.000
	2	0.402	1.081	88.08	16.10	1.00	16.10	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								

SUBMITTED BY: Luis G. Tapia **Certificate No. and Grade:** WS0014096, B **Date:** April 10, 2020

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:** March **Year:** 2020

TRUE

VALIDATED OPERATIONAL CONDITIONS

VALIDATED PARAMETERS						PERFORMANCE REQUIREMENTS	
	Reactor Number						
Parameters	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)
	OPERATIONAL DATA								
17	1	0.279	0.797	89.76	0.00	1.00	0.00	0.057	3.75
	2	0.433	1.029	89.76	0.00	1.00	0.00	0.164	
	3	X	X	X	X	X	X	X	
	4								
	5								
18	1	0.321	0.878	87.49	4.40	1.00	4.40	0.000	10.75
	2	0.415	1.140	87.49	0.00	1.00	0.00	0.354	
	3	X	X	X	X	X	X	X	
	4								
	5								
19	1	0.355	0.838	87.35	0.00	1.00	0.00	0.008	0.25
	2	0.460	1.088	87.35	0.00	1.00	0.00	0.009	
	3	X	X	X	X	X	X	X	
	4								
	5								
20	1	0.265	0.719	85.64	22.31	1.00	22.31	0.000	0.000
	2	0.348	0.944	85.64	17.30	1.00	17.30	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
21	1	0.327	0.810	87.66	22.62	1.00	22.62	0.000	0.000
	2	0.423	1.110	87.66	23.19	1.00	23.19	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
22	1	0.240	0.807	88.15	0.00	1.00	0.00	0.008	0.25
	2	0.307	1.079	88.15	0.00	1.00	0.00	0.011	
	3	X	X	X	X	X	X	X	
	4								
	5								
23	1	0.352	0.810	78.51	0.00	1.00	0.00	0.008	0.25
	2	0.437	1.095	78.51	0.00	1.00	0.00	0.011	
	3	X	X	X	X	X	X	X	
	4								
	5								
24	1	0.335	0.770	86.22	0.00	1.00	0.00	0.007	0.25
	2	0.429	1.016	86.22	0.00	1.00	0.00	0.008	
	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)
	OPERATIONAL DATA								
25	1	0.349	0.833	84.85	0.00	1.00	0.00	0.008	0.25
	2	0.466	1.103	84.85	0.00	1.00	0.00	0.011	
	3	X	X	X	X	X	X	X	
	4								
	5								
26	1	0.377	0.711	88.05	17.06	1.00	17.06	0.000	0.000
	2	0.484	0.940	88.05	12.51	1.00	12.51	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
27	1	0.434	0.700	89.45	27.89	1.00	27.89	0.000	0.000
	2	0.562	0.952	89.45	7.51	1.00	7.51	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
28	1	0.388	0.697	88.84	34.65	1.00	34.65	0.000	0.000
	2	0.515	0.924	88.84	28.18	1.00	28.18	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
29	1	0.352	0.664	88.57	0.00	1.00	0.00	0.005	0.25
	2	0.464	0.891	88.57	0.00	1.00	0.00	0.016	
	3	X	X	X	X	X	X	X	
	4								
	5								
30	1	0.322	0.768	89.54	30.53	1.00	30.53	0.000	0.000
	2	0.423	0.966	89.54	24.49	1.00	24.49	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
31	1	0.372	0.737	88.00	12.45	1.00	12.45	0.000	0.000
	2	0.489	0.961	88.00	22.54	1.00	22.54	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								

SUBMITTED BY: Luis G. Tapia

Certificate No. and Grade: WS0014096, B **Date:** April 10, 2020

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:** March **Year:** 2020

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	1.81*	1.00	0.00	1.00
	2	1.11*	1.00	0.00	1.00		10	0.00*	1.00	0.00	1.00
	3	28.38	4.00	0.18	1.00		11	0.00*	1.00	0.00	1.00
	4	18.49	3.75	0.00	1.00		12	19.74	3.84	0.00	1.00
	5	17.05	3.65	0.00	1.00		13	27.20	4.00	0.15	1.00
	6	23.72	4.00	0.04	1.00		14	23.75	4.00	0.04	1.00
	7	0.90*	1.00	0.00	1.00		15	24.08	4.00	0.05	1.00
	8	28.93	4.00	0.20	1.00		16	16.10	3.58	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	0.00*	1.00	0.00	1.00	1 to 3	25	0.00*	1.00	0.00	1.00
	18	0.00*	0.00	0.00	1.00		26	12.51	3.19	0.00	1.00
	19	0.00*	1.00	0.00	1.00		27	7.51	2.46	0.00	1.00
	20	17.30	3.66	0.00	1.00		28	28.18	4.00	0.18	1.00
	21	22.62	4.00	0.00	1.00		29	0.00*	1.00	0.00	1.00
	22	0.00*	1.00	0.00	1.00		30	24.49	4.00	0.06	1.00
	23	0.00*	1.00	0.00	1.00		31	12.45	3.18	0.00	1.00
	24	0.00*	1.00	0.00	1.00						

Total volume of water treated by all CDA reactors:	23.09	MG
Total volume of off-spec water produced by all CDA reactors:	0.74	MG
Percentage of off-spec water produced by all CDA reactors:	3.20	%
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: 1, 2, 5, 7, 8, 9, 10, 12, 13, 15, 23,

SUBMITTED BY: Luis G. Tapia

Certificate No. and Grade: WS0014096, B **Date:** April 10, 2020

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:** March **Year:** 2020

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	75.80	73.20	1.04	NA	1.00
		2							
		3							
	1.00	4							
	Calibration Date	5							
		6							
	3/1/20	7							
	New Sensor CF	8							
		9							
	1.00	10							
UVCD No. 2	Previous Month's Sensor CF	1	38	44	75.40	72.90	1.03	NA	1.00
		2							
		3							
	1.00	4							
	Calibration Date	5							
		6							
	3/1/20	7							
	New Sensor CF	8							
		9							
	1.00	10							
UVCD No. 3	Previous Month's Sensor CF	1	39	44	4.50	3.90	1.15		off-line
		2							
		3							
	1.00	4							
	Calibration Date	5							
		6							
	3/1/20	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: Luis G. Tapia

Certificate No. and Grade: WS0014096, B

Date: April 10, 2020

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:** March **Year:** 2020

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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Date: April 10, 2020

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: March

Year: 2020

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	3/1/20	78713	89.90	92.50	2.60	YES	NA
	2	3/9/20	78713	93.40	92.80	0.60	NA	NA
	3	3/16/20	78713	92.30	93.00	0.70	NA	NA
	4	3/23/20	78713	90.50	92.10	1.60	NA	NA
	5	3/30/20	78713	89.20	91.80	2.60	YES	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: Luis G. Tapia

Certificate No. and Grade: WS0014096, B

Date: April 10, 2020

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: March

Year: 2020

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: March Year: 2020

	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	FALSE	FALSE	FALSE	FALSE	Minimum	TRUE	FALSE	FALSE	FALSE	FALSE	Minimum	TRUE	FALSE	FALSE	FALSE	FALSE	Minimum	TRUE	FALSE	FALSE	FALSE	FALSE	Minimum
Train 2																								
Train 3																								
Train 4																								
Train 5																								
1	4.50					4.50	1.00					1.00	2.16					2.16	16.98					16.98
2	4.50					4.50	1.00					1.00	2.16					2.16	40.33					40.33
3	4.50					4.50	1.00					1.00	5.37					5.37	21.46					21.46
4	4.50					4.50	1.00					1.00	5.61					5.61	32.68					32.68
5	4.50					4.50	1.00					1.00	4.88					4.88	19.08					19.08
6	4.50					4.50	1.00					1.00	6.31					6.31	37.77					37.77
7	4.50					4.50	1.00					1.00	2.48					2.48	20.50					20.50
8	4.50					4.50	1.00					1.00	5.73					5.73	29.36					29.36
9	4.50					4.50	1.00					1.00	2.45					2.45	21.03					21.03
10	4.50					4.50	1.00					1.00	3.63					3.63	52.12					52.12
11	4.50					4.50	1.00					1.00	2.79					2.79	28.92					28.92
12	4.50					4.50	1.00					1.00	5.61					5.61	28.85					28.85
13	4.50					4.50	1.00					1.00	6.40					6.40	37.30					37.30
14	4.50					4.50	1.00					1.00	5.80					5.80	26.98					26.98
15	4.50					4.50	1.00					1.00	6.15					6.15	36.62					36.62
16	4.50					4.50	1.00					1.00	5.61					5.61	33.43					33.43
17	4.50					4.50	1.00					1.00	3.63					3.63	48.20					48.20
18	4.50					4.50	1.00					1.00	2.78					2.78	50.84					50.84
19	4.50					4.50	1.00					1.00	3.07					3.07	26.40					26.40
20	4.50					4.50	1.00					1.00	4.97					4.97	15.44					15.44
21	4.50					4.50	1.00					1.00	6.40					6.40	46.62					46.62
22	4.50					4.50	1.00					1.00	3.88					3.88	61.28					61.28
23	4.50					4.50	1.00					1.00	4.05					4.05	65.65					65.65
24	4.50					4.50	1.00					1.00	3.91					3.91	61.10					61.10
25	4.50					4.50	1.00					1.00	2.87					2.87	29.35					29.35
26	4.50					4.50	1.00					1.00	5.13					5.13	26.73					26.73
27	4.50					4.50	1.00					1.00	4.14					4.14	20.21					20.21
28	4.50					4.50	1.00					1.00	5.82					5.82	27.34					27.34
29	4.50					4.50	1.00					1.00	3.08					3.08	36.20					36.20
30	4.50					4.50	1.00					1.00	6.73					6.73	53.83					53.83
31	4.50					4.50	1.00					1.00	4.84					4.84	24.23					24.23
MIN	4.50					4.50	1.00					1.00	2.16					2.16	15.44					15.44
AVG	4.50					4.50	1.00					1.00	4.47					4.47	34.74					34.74
MAX	4.50					4.50	1.00					1.00	6.73					6.73	65.65					65.65