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: April 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:

Certificate No. & Grade: WS0012772, B

Date: May 10, 2020

TREATMENT PLANT PERFORMANCE

Total number of turbidity readings:	95	Number of 4-hour periods when plant was off-line:	85
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:	4.97
		Average log inactivation) (including UV) for viruses:	45.76
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:	6.88
		Number of days with pH below 7.0 in the last disinfection zone:	8.00
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:	44 (at least 30 required) (8)		
Average disinfectant residual value:	1.87	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:	4.79 NTU	Average turbidity value:	1.51 NTU
	Minimum turbidity reading:	0.52 NTU	Standard deviation:	0.956 NTU
	95th percentile value:	3.21 NTU		
IFE Stastical Summary	Maximum IFE turbidity reading:	0.16 NTU	Average IFE turbidity value:	0.08 NTU
	Minimum IFEturbidity reading:	0.04 NTU	Standard deviation:	0.021 NTU
	95th percentile IFE value:	0.12 NTU		
CFE Stastical Summary	Maximum CFE turbidity reading:	0.10 NTU	Average CFE turbidity value:	0.06 NTU
	Minimum CFE turbidity reading:	0.04 NTU	Standard deviation:	0.015 NTU
	95th percentile CFE value:	0.10 NTU		

STATISTICAL ANALYSIS OF pH DATA

Last Zone pH Stastical Summary	Maximum pH reading:	7.22 pH	Average pH value:	7.05 pH
	Minimum pH reading:	6.88 pH	Standard deviation:	0.105 pH
	95th percentile value:	7.21 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:	1,950
Month: April	Year: 2020	Population:	6,825

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	0.955	0.999	2	120	1.0	0.6					X	X	X	0.05	0.05	0.05	2.9	
2	0.858	1.007	8	120	1.1	0.7					0.05	X	X	X	0.05	0.05	3.0	
3	0.806	1.068	8	120	1.0	0.6					X	X	X	0.05	0.05	0.05	2.8	
4	0.707	0.939	9	120	2.7	0.7					0.06	X	X	X	0.07	0.08	3.0	
5	0.747	0.622	9	120	1.2	0.7					X	X	X	0.08	0.09	0.10	1.5	
6	0.747	0.622	9	100	1.2	0.6					0.07	X	X	X	0.07	0.07	3.2	
7	0.758	0.556	9	120	1.9	0.6					0.08	X	X	0.10	0.05	0.05	2.0	
8	0.787	0.747	9	120	1.8	0.6					X	X	X	0.05	0.05	0.05	2.5	
9	0.802	0.793	6	120	1.3	0.5					X	X	X	0.06	0.05	0.05	2.6	
10	0.779	0.745	5	120	1.3	0.5					X	X	X	X	0.08	0.07	2.6	
11	0.793	0.644	6	120	1.3	0.5					X	X	X	X	0.06	0.06	2.6	
12	0.904	0.918	6	120	1.2	0.5					X	X	X	0.05	0.06	0.06	2.5	
13	0.940	1.043	10	120	1.1	0.6					X	X	X	0.07	0.07	0.07	2.3	
14	0.781	0.698	9	120	1.0	2.1					X	X	X	0.10	0.07	0.08	2.5	
15	0.730	0.935	8	120	1.0	1.9					0.10	X	X	X	0.09	0.09	1.5	
16	0.886	0.827	10	120	1.0	2.0					0.08	X	X	X	0.07	0.06	3.0	
17	0.799	0.685	9	120	1.5	1.3					X	X	X	0.05	0.05	0.05	2.0	
18	0.768	0.717	8	120	1.4	1.2					X	X	X	X	0.04	0.05	2.7	
19	0.740	0.777	6	120	4.8	1.2					X	X	X	X	0.05	0.05	2.7	
20	1.035	1.017	7	120	4.6	1.3					0.05	X	X	0.05	0.05	0.06	2.9	
21	1.112	0.920	10	120	2.9	1.3					0.05	X	X	0.06	0.06	0.05	2.9	
22	1.008	1.021	10	120	1.0	1.4					0.05	X	X	0.06	0.06	0.06	2.8	
23	1.058	1.080	10	120	1.0	2.8					0.05	X	X	0.05	0.06	0.06	2.7	
24	1.084	1.076	9	120	2.4	3.1					X	X	X	0.05	0.08	0.07	2.4	
25	1.118	1.188	6	120	1.0	3.1					0.06	X	X	0.08	0.09	0.05	2.8	
26	1.070	1.115	15	120	1.0	3.3					X	X	X	0.10	0.10	0.09	2.5	
27	0.988	1.101	11	120	1.0	3.2					X	X	X	0.05	0.05	0.06	2.3	
28	1.077	1.042	10	120	1.0	2.4					0.06	X	X	0.06	0.07	0.07	1.8	
29	1.176	1.239	26	120	1.0	2.4					0.07	X	X	0.07	0.07	0.06	2.6	
30	0.976	1.007	9	120	1.0	1.7					0.08	X	X	0.07	0.06	0.04	2.7	
31																		
Total	26.989	27.148		Max	4.8	3.3												
Avg	0.900	0.905		Avg	1.6	1.5												
Max	1.176	1.239		95th %	3.8	3.2												
Min	0.707	0.556		Min	1.0	0.5												
				95th percentile based on data from all basins						3.2								

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: May 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 Utility

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022 Plant ID No.: 20831 Month: April 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	0.11		0.08		0.13		0.09													
2	0.06		0.06		0.10		0.06													
3	0.06		0.07		0.16		0.05													
4	0.08		0.10		0.10		0.06													
5	0.10		0.10		0.08		0.08													
6	0.14		0.11		0.10		0.10													
7	0.12		0.08		0.08		0.08													
8	0.08		0.08		0.10		0.12													
9	0.08		0.06		0.08		0.08													
10	0.07		0.08		0.08		0.06													
11	0.06		0.06		0.08		0.06													
12	0.06		0.06		0.08		0.07													
13	0.08		0.07		0.04		0.07													
14	0.10		0.10		0.12		0.10													
15	0.10		0.08		0.08		0.10													
16	0.09		0.08		0.06		0.09													
17	0.08		0.06		0.06		0.11													
18	0.07		0.06		0.06		0.15													
19	0.07		0.05		0.05		0.06													
20	0.09		0.06		0.06		0.06													
21	0.08		0.06		0.08		0.06													
22	0.08		0.06		0.07		0.07													
23	0.08		0.07		0.07		0.06													
24	0.09		0.06		0.07		0.06													
25	0.06		0.07		0.08		0.08													
26	0.06		0.10		0.08		0.11													
27	0.08		0.09		0.09		0.08													
28	0.10		0.08		0.10		0.10													
29	0.08		0.07		0.10		0.09													
30	0.07		0.06		0.10		0.09													
31																				

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: May 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 Utility

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022 Plant ID No.: 20831 Month: April 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*	0.5	0.813	22.7	7.1				
	FCL *D1B*	0.5	0.813	22.7	7.0				
	FCL *D2*	0.3	0.406	22.8	7.0	2.02	31.83	4.04	
	CLA *D3*	2.8	0.813	24.0	7.0			(G)	
	D4								
2	FCL *D1A*	0.8	0.802	22.3	7.1				
	FCL *D1B*	0.6	0.802	21.1	7.1				
	FCL *D2*	1.0	0.401	22.2	7.1	3.34	68.02	6.68	
	CLA *D3*	3.5	0.802	22.2	7.0			(G)	
	D4								
3	FCL *D1A*	0.3	0.760	24.1	7.1				
	FCL *D1B*	0.2	0.760	24.3	7.0				
	FCL *D2*	0.2	0.380	24.2	7.1	1.99	24.96	3.98	
	CLA *D3*	3.3	0.760	25.1	7.0			(G)	
	D4								
4	FCL *D1A*	0.5	0.758	23.0	7.0				
	FCL *D1B*	0.7	0.758	23.0	7.1				
	FCL *D2*	0.5	0.379	23.0	7.0	2.79	47.32	5.58	
	CLA *D3*	3.6	0.758	23.0	6.9			(G)	
	D4								
5	FCL *D1A*	0.8	0.744	22.4	7.1				
	FCL *D1B*	0.7	0.744	23.0	7.0				
	FCL *D2*	0.4	0.372	22.5	7.1	2.46	45.15	4.93	
	CLA *D3*	2.8	0.744	22.2	7.0			(G)	
	D4								
6	FCL *D1A*	0.8	0.676	21.8	7.1				
	FCL *D1B*	0.7	0.676	21.5	7.0				
	FCL *D2*	1.0	0.338	21.5	7.2	3.93	84.83	7.85	
	CLA *D3*	3.7	0.676	20.5	6.9			(G)	
	D4								
7	FCL *D1A*	0.6	0.703	21.6	7.0				
	FCL *D1B*	0.8	0.703	21.4	7.0				
	FCL *D2*	0.6	0.351	21.9	7.0	2.89	53.19	5.79	
	CLA *D3*	3.1	0.703	21.4	6.9			(G)	
	D4								
8	FCL *D1A*	1.0	0.754	22.1	7.0				
	FCL *D1B*	0.9	0.754	22.2	6.9				
	FCL *D2*	0.5	0.377	24.5	7.0	2.97	57.03	5.94	
	CLA *D3*	2.6	0.754	23.4	6.9			(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*	0.1	0.747	22.8	7.0				
	FCL *D1B*	0.2	0.747	22.8	7.0				
	FCL *D2*	0.4	0.373	22.7	7.1	1.85	28.35	3.69	
	CLA *D3*	3.0	0.747	22.4	7.0			(G)	
	D4								
10	FCL *D1A*	0.2	0.761	22.8	7.2				
	FCL *D1B*	0.3	0.761	22.8	7.2				
	FCL *D2*	0.3	0.381	22.7	7.1	1.54	22.85	3.09	
	CLA *D3*	2.6	0.761	23.0	7.0			(G)	
	D4								
11	FCL *D1A*	0.3	0.787	23.9	7.1				
	FCL *D1B*	0.4	0.787	24.0	7.0				
	FCL *D2*	0.3	0.393	23.6	7.2	1.78	25.35	3.56	
	CLA *D3*	2.8	0.787	25.0	7.2			(G)	
	D4								
12	FCL *D1A*	0.7	0.780	23.0	7.1				
	FCL *D1B*	0.9	0.780	23.6	7.0				
	FCL *D2*	0.2	0.390	23.8	7.1	1.96	31.35	3.92	
	CLA *D3*	2.6	0.780	24.6	7.2			(G)	
	D4								
13	FCL *D1A*	1.1	0.748	22.8	7.1				
	FCL *D1B*	1.3	0.748	22.6	7.2				
	FCL *D2*	0.8	0.374	22.2	7.1	3.40	73.65	6.80	
	CLA *D3*	2.7	0.748	22.4	7.2			(G)	
	D4								
14	FCL *D1A*	0.6	0.721	21.1	7.0				
	FCL *D1B*	0.6	0.721	22.2	6.9				
	FCL *D2*	0.1	0.360	21.9	7.2	1.48	20.22	2.96	
	CLA *D3*	2.8	0.721	21.8	7.0			(G)	
	D4								
15	FCL *D1A*	0.7	0.731	20.3	7.2				
	FCL *D1B*	0.7	0.731	19.3	7.2				
	FCL *D2*	0.6	0.365	19.1	7.3	1.80	42.80	3.60	
	CLA *D3*	3.4	0.731	1.9	7.2			(G)	
	D4								
16	FCL *D1A*	1.0	0.753	21.2	7.2				
	FCL *D1B*	0.9	0.753	20.3	7.1				
	FCL *D2*	0.5	0.377	20.4	7.3	2.43	45.31	4.87	
	CLA *D3*	3.4	0.753	21.1	7.2			(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: May 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 Utility

PLANT NAME OR NUMBER: Rio Bravo

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

Date	Disinfectant	C (mg/L)	Flow (MGD)	Temp (°C)	pH	Giardia Log	Virus Log	Inact. Ratio	Time=
17	FCL *D1A*	0.8	0.778	21.9	7.1				
	FCL *D1B*	0.8	0.778	21.7	7.1				
	FCL *D2*	0.7	0.389	22.1	7.2	2.87	58.48	5.75	
	CLA *D3*	2.9	0.778	22.4	7.1			(G)	
	D4								
18	FCL *D1A*	0.6	0.748	22.0	7.1				
	FCL *D1B*	0.8	0.748	21.8	7.1				
	FCL *D2*	0.5	0.374	21.7	7.2	2.44	44.74	4.87	
	CLA *D3*	3.1	0.748	22.2	7.1			(G)	
	D4								
19	FCL *D1A*	0.4	0.773	23.2	7.1				
	FCL *D1B*	0.5	0.733	23.6	7.1				
	FCL *D2*	0.4	0.386	22.7	7.2	2.23	37.07	4.46	
	CLA *D3*	2.9	0.773	24.7	7.2			(G)	
	D4								
20	FCL *D1A*	0.2	0.761	21.7	7.1				
	FCL *D1B*	0.3	0.761	21.8	7.0				
	FCL *D2*	0.2	0.381	21.7	7.3	1.41	18.34	2.82	
	CLA *D3*	2.9	0.761	22.7	7.2			(G)	
	D4								
21	FCL *D1A*	0.4	0.780	22.4	7.2				
	FCL *D1B*	0.2	0.780	22.6	7.2				
	FCL *D2*	0.2	0.390	22.6	7.3	1.39	18.31	2.79	
	CLA *D3*	2.9	0.780	22.8	7.2			(G)	
	D4								
22	FCL *D1A*	0.1	0.796	23.3	7.2				
	FCL *D1B*	0.2	0.796	23.5	7.1				
	FCL *D2*	0.3	0.398	24.0	7.2	1.59	21.90	3.18	
	CLA *D3*	3.0	0.796	23.4	7.2			(G)	
	D4								
23	FCL *D1A*	0.3	0.800	23.0	7.3				
	FCL *D1B*	0.3	0.800	23.0	7.2				
	FCL *D2*	0.4	0.400	23.0	7.1	1.88	31.55	3.76	
	CLA *D3*	2.7	0.800	23.0	7.1			(G)	
	D4								
24	FCL *D1A*	0.4	0.826	23.0	7.2				
	FCL *D1B*	0.2	0.826	23.0	7.2				
	FCL *D2*	0.2	0.413	24.0	7.3	1.36	19.11	2.73	
	CLA *D3*	2.8	0.826	23.0	7.1			(G)	
	D4								

PERFORMANCE DATA

Date	Disinfectant	C (mg/L)	Flow (MGD)	Temp (°C)	pH	Giardia Log	Virus Log	Inact. Ratio	Time=
25	FCL *D1A*	0.5	0.801	24.0	7.1				
	FCL *D1B*	0.2	0.801	24.0	7.1				
	FCL *D2*	0.2	0.400	24.0	7.1	1.58	20.55	3.17	
	CLA *D3*	3.0	0.801	24.0	7.0			(G)	
	D4								
26	FCL *D1A*	0.2	0.786	24.0	7.2				
	FCL *D1B*	0.2	0.786	24.0	7.1				
	FCL *D2*	0.3	0.393	24.0	7.1	1.82	26.89	3.63	
	CLA *D3*	2.9	0.786	24.0	7.0			(G)	
	D4								
27	FCL *D1A*	1.1	0.748	24.7	7.0				
	FCL *D1B*	1.2	0.748	25.0	7.0				
	FCL *D2*	1.3	0.374	24.4	7.1	5.45	124.23	10.90	
	CLA *D3*	3.3	0.748	27.1	6.9			(G)	
	D4								
28	FCL *D1A*	0.4	0.767	25.7	6.9				
	FCL *D1B*	0.8	0.767	25.8	6.9				
	FCL *D2*	1.2	0.383	26.5	7.0	5.17	110.40	10.34	
	CLA *D3*	3.2	0.767	28.4	6.9			(G)	
	D4								
29	FCL *D1A*	0.6	0.763	24.3	7.0				
	FCL *D1B*	1.0	0.763	24.2	7.0				
	FCL *D2*	1.0	0.382	24.6	7.0	4.34	86.70	8.67	
	CLA *D3*	3.3	0.763	24.9	7.0			(G)	
	D4								
30	FCL *D1A*	0.7	0.816	22.3	7.2				
	FCL *D1B*	0.4	0.816	23.2	7.1				
	FCL *D2*	0.7	0.408	23.1	7.2	2.73	50.73	5.46	
	CLA *D3*	3.2	0.816	24.1	7.0			(G)	
	D4								
31	*D1A*								
	D1B								
	D2								
	D3								
	D4								
	Max					5.45	124.23	10.90	
	Min					1.36	18.31	2.73	
	Avg					2.50	45.71	4.99	
	SD					1.06	27.07	2.13	

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: May 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 Utility

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022

Plant ID No.: 20831

Month: April

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	4/6	100	4.77	2.75	42.3	35	1.21			1.21
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		100.00	4.77	2.75	42.35		1.21			1.21
Max		100.00	4.77	2.75	42.35		1.21			1.21
Min		100.00	4.77	2.75	42.35		1.21			1.21

TOTAL ORGANIC CARBON (TOC) REMOVAL SUMMARY

TOC Summary					Monthly Compliance Ratio
Raw Water Alkalinity	Raw Water TOC	Treated Water TOC	TOC % Removal	ACC # used	
100	4.77	2.75	42.3	NA	1.21

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: May 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 Utility
PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022 **Plant ID No.:** 20831 **Month:** April **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	0.351	0.737	88.49	12.45	1.00	12.45	0.000	0.000
	2	0.462	0.961	88.49	22.54	1.00	22.54	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
2	1	0.318	0.874	90.81	31.38	1.00	31.38	0.000	0.000
	2	0.418	1.125	90.81	22.27	1.00	22.27	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
3	1	0.329	0.761	89.52	0.00	1.00	0.00	0.002	0.25
	2	0.409	0.951	89.52	0.00	1.00	0.00	0.002	
	3	X	X	X	X	X	X	X	
	4								
	5								
4	1	0.238	0.678	91.06	0.00	1.00	0.00	0.006	0.25
	2	0.312	0.870	91.06	0.00	1.00	0.00	0.008	
	3	X	X	X	X	X	X	X	
	4								
	5								
5	1	0.272	0.634	88.60	0.00	1.00	0.00	0.005	0.25
	2	0.348	0.815	88.60	0.00	1.00	0.00	0.007	
	3	X	X	X	X	X	X	X	
	4								
	5								
6	1	0.301	0.697	90.67	33.00	1.00	33.00	0.000	0.000
	2	0.382	0.907	90.67	29.13	1.00	29.13	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
7	1	0.305	0.687	91.37	39.67	1.00	39.67	0.000	0.000
	2	0.405	0.930	91.37	30.95	1.00	30.95	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
8	1	0.348	0.775	92.28	33.10	1.00	33.10	0.000	0.000
	2	0.449	0.983	92.28	26.41	1.00	26.41	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	0.329	0.706	91.91	0.00	1.00	0.00	0.006	0.25
	2	0.430	0.930	91.91	0.00	1.00	0.00	0.008	
	3	X	X	X	X	X	X	X	
	4								
	5								
10	1	0.326	0.722	92.45	29.06	1.00	29.06	0.000	0.000
	2	0.412	0.961	92.45	29.93	1.00	29.93	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
11	1	0.336	0.739	91.47	36.40	1.00	36.40	0.000	0.000
	2	0.425	0.940	91.47	25.29	1.00	25.29	0.000	
	3	X	X	X	X	X	X		
	4								
	5								
12	1	0.386	0.708	91.42	18.03	1.00	18.03	0.000	0.000
	2	0.487	0.911	91.42	29.61	1.00	29.61	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
13	1	0.393	0.696	90.37	2.00	1.00	2.00	0.007	0.25
	2	0.511	0.920	90.37	0.00	1.00	0.00	0.001	
	3	X	X	X	X	X	X	X	
	4								
	5								
14	1	0.309	1.171	89.67	30.22	1.00	30.22	0.000	0.000
	2	0.344	1.451	89.67	8.60	1.00	8.60	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
15	1	0.285	0.692	93.11	0.00	1.00	0.00	0.004	0.25
	2	0.314	0.778	93.11	0.00	1.00	0.00	0.004	
	3	X	X	X	X	X	X	X	
	4								
	5								
16	1	0.316	0.688	90.69	40.00	1.00	40.00	0.000	0.000
	2	0.357	0.785	90.69	32.21	1.00	32.21	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								

SUBMITTED BY: TOMAS SANCHEZ JR **Certificate No. and Grade:** WS0012772, B **Date:** May 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 Utility

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022 Plant ID No.: 20831 Month: April 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	0.340	0.756	94.35	0.00	1.00	0.00	0.008	0.25
	2	0.387	0.897	94.35	0.00	1.00	0.00	0.009	
	3	X	X	X	X	X	X	X	
	4								
	5								
18	1	0.334	0.790	91.40	37.32	1.00	37.32	0.000	0.000
	2	0.396	0.945	91.40	29.92	1.00	29.92	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
19	1	0.321	0.713	91.86	0.00	1.00	0.00	0.007	0.25
	2	0.412	0.957	91.86	0.00	1.00	0.00	0.019	
	3	X	X	X	X	X	X	X	
	4								
	5								
20	1	0.355	0.884	92.69	0.00	1.00	0.00	0.001	0.25
	2	0.449	1.164	92.69	0.00	1.00	0.00	0.001	
	3	X	X	X	X	X	X	X	
	4								
	5								
21	1	0.360	0.748	90.50	23.17	1.00	23.17	0.000	0.000
	2	0.459	0.948	90.50	29.32	1.00	29.32	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
22	1	0.410	0.727	92.28	33.46	1.00	33.46	0.000	0.000
	2	0.525	0.935	92.28	26.66	1.00	26.66	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
23	1	0.409	0.820	92.86	3.32	1.00	3.32	0.000	0.000
	2	0.516	1.096	92.86	23.90	1.00	23.90	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
24	1	0.448	0.737	92.35	0.00	1.00	0.00	0.006	0.25
	2	0.564	0.953	92.35	0.00	1.00	0.00	0.007	
	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	0.394	0.706	91.40	0.00	1.00	0.00	0.006	0.25
	2	0.513	0.932	91.40	0.00	1.00	0.00	0.017	
	3	X	X	X	X	X	X	X	
	4								
	5								
26	1	0.427	0.684	91.69	0.00	1.00	0.00	0.010	0.50
	2	0.548	0.897	91.69	0.00	1.00	0.00	0.020	
	3	X	X	X	X	X	X	X	
	4								
	5								
27	1	0.413	0.695	89.40	24.02	1.00	24.02	0.000	0.000
	2	0.520	0.888	89.40	18.32	1.00	18.32	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
28	1	0.363	0.697	88.88	36.55	1.00	36.55	0.000	0.000
	2	0.456	0.904	88.88	16.81	1.00	16.81	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
29	1	0.399	0.743	89.35	34.04	1.00	34.04	0.000	0.000
	2	0.503	0.959	89.35	27.52	1.00	27.52	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
30	1	0.413	0.773	91.18	0.00	1.00	0.00	0.015	0.25
	2	0.545	1.015	91.18	0.00	1.00	0.00	0.010	
	3	X	X	X	X	X	X	X	
	4								
	5								
31	1								
	2								
	3								
	4								
	5								

SUBMITTED BY: TOMAS SANCHEZ JR

Certificate No. and Grade: WS0012772, B Date: May 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 Utility

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022 **Plant ID No.:** 20831 **Month:** April **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	12.45	3.18	0.00	1.00	1 to 3	9	0.00*	1.00	0.00	1.00
	2	22.27	4.00	0.00	1.00		10	29.06	4.00	0.21	1.00
	3	0.00*	1.00	0.00	1.00		11	25.29	4.00	0.09	1.00
	4	0.00*	1.00	0.00	1.00		12	18.03	3.72	0.00	1.00
	5	0.00*	1.00	0.00	1.00		13	0.00*	1.00	0.00	1.00
	6	29.13	4.00	0.21	1.00		14	8.60	2.64	0.00	1.00
	7	30.95	4.00	0.26	1.00		15	0.00*	1.00	0.00	1.00
	8	26.41	4.00	0.12	1.00		16	32.21	4.00	0.30	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	29.92	4.00	0.23	1.00		26	0.00*	1.00	0.00	1.00
	19	0.00*	1.00	0.00	1.00		27	18.32	3.74	0.00	1.00
	20	0.00*	1.00	0.00	1.00		28	16.81	3.63	0.00	1.00
	21	23.17	4.00	0.02	1.00		29	27.52	4.00	0.16	1.00
	22	26.66	4.00	0.13	1.00		30	0.00*	1.00	0.00	1.00
	23	3.32	1.62	0.00	1.00		31				1.00
	24	0.00*	1.00	0.00	1.00						

Total volume of water treated by all CDA reactors:	23.79	MG
Total volume of off-spec water produced by all CDA reactors:	0.20	MG
Percentage of off-spec water produced by all CDA reactors:	0.82	%
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: 4, 5, 14, 15, 16, 20, 21, 25, 28, 29,

SUBMITTED BY: Tomas Sanchez Jr.

Certificate No. and Grade: WS0012772, B **Date:** May 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 Utility

PLANT NAME OR NUMBER: Rio Bravo

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

Month: April **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	68.10	74.40	0.92	NA	1.00
		2							
		3							
	1.00	4							
	Calibration Date	5							
		6							
	4/1/20	7							
	New Sensor CF	8							
		9							
	1.00	10							
UVCD No. 2	Previous Month's Sensor CF	1	38	44	70.20	70.30	1.00	NA	1.00
		2							
		3							
	1.00	4							
	Calibration Date	5							
		6							
	4/1/20	7							
	New Sensor CF	8							
		9							
	1.00	10							
UVCD No. 3	Previous Month's Sensor CF	1	39	44	5.20	5.30	0.98		off-line
		2							
		3							
	1.00	4							
	Calibration Date	5							
		6							
	4/1/20	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: TOMAS SANCHEZ JR.

Certificate No. and Grade: WS0012772, B

Date: May 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 Utility

PLANT NAME OR NUMBER: Rio Bravo

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

Month: April 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							

SUBMITTED BY: Tomas Sanchez Jr.

Certificate No. and Grade: WS0012772, B

Date: May 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 Utility

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022

Plant ID 20831

NA

Month: April

Year: 2020

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	4/1/20	78713	88.60	92.10	3.50	YES	NA
	2	4/6/20	78713	90.80	90.20	0.60	NA	NA
	3	4/13/20	78713	92.40	92.00	0.40	NA	NA
	4	4/20/20	78713	92.40	92.30	0.10	NA	NA
	5	4/27/20	78713	92.20	92.00	0.20	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: TOMAS SANCHEZ JR.

Certificate No. and Grade: WS0012772, B

Date: May 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 Utility

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022 Plant ID No.: 20831 Month: April 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																	
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: April 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	5.20					5.20	31.83					31.83
2	4.50					4.50	1.00					1.00	6.02					6.02	68.02					68.02
3	4.50					4.50	1.00					1.00	2.99					2.99	24.96					24.96
4	4.50					4.50	1.00					1.00	3.79					3.79	47.32					47.32
5	4.50					4.50	1.00					1.00	3.46					3.46	45.15					45.15
6	4.50					4.50	1.00					1.00	7.93					7.93	85.04					85.04
7	4.50					4.50	1.00					1.00	6.89					6.89	53.45					53.45
8	4.50					4.50	1.00					1.00	6.97					6.97	57.15					57.15
9	4.50					4.50	1.00					1.00	2.85					2.85	28.35					28.35
10	4.50					4.50	1.00					1.00	5.54					5.54	23.06					23.06
11	4.50					4.50	1.00					1.00	5.78					5.78	25.44					25.44
12	4.50					4.50	1.00					1.00	5.67					5.67	31.35					31.35
13	4.50					4.50	1.00					1.00	4.40					4.40	73.65					73.65
14	4.50					4.50	1.00					1.00	4.11					4.11	20.22					20.22
15	4.50					4.50	1.00					1.00	2.80					2.80	42.80					42.80
16	4.50					4.50	1.00					1.00	6.43					6.43	45.61					45.61
17	4.50					4.50	1.00					1.00	3.87					3.87	58.48					58.48
18	4.50					4.50	1.00					1.00	6.44					6.44	44.97					44.97
19	4.50					4.50	1.00					1.00	3.23					3.23	37.07					37.07
20	4.50					4.50	1.00					1.00	2.41					2.41	18.34					18.34
21	4.50					4.50	1.00					1.00	5.39					5.39	18.32					18.32
22	4.50					4.50	1.00					1.00	5.59					5.59	22.03					22.03
23	4.50					4.50	1.00					1.00	3.50					3.50	31.55					31.55
24	4.50					4.50	1.00					1.00	2.36					2.36	19.11					19.11
25	4.50					4.50	1.00					1.00	2.58					2.58	20.55					20.55
26	4.50					4.50	1.00					1.00	2.82					2.82	26.89					26.89
27	4.50					4.50	1.00					1.00	9.18					9.18	124.23					124.23
28	4.50					4.50	1.00					1.00	8.80					8.80	110.40					110.40
29	4.50					4.50	1.00					1.00	8.34					8.34	86.86					86.86
30	4.50					4.50	1.00					1.00	3.73					3.73	50.73					50.73
31																								
MIN	4.50					4.50	1.00					1.00	2.36					2.36	18.32					18.32
AVG	4.50					4.50	1.00					1.00	4.97					4.97	45.76					45.76
MAX	4.50					4.50	1.00					1.00	9.18					9.18	124.23					124.23