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: February 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 D Garza

Certificate No. & Grade: WS0014096, B

Date: March 10, 2020

TREATMENT PLANT PERFORMANCE

Total number of turbidity readings:	80	Number of 4-hour periods when plant was off-line:	94
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:	3.99
		Average log inactivation) (including UV) for viruses:	27.55
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:	7.08
		Number of days with pH below 7.0 in the last disinfection zone:	0.00
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:	53 (at least 29 required) (8)		
Average disinfectant residual value:	2.14	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:	8.90 NTU	Average turbidity value:	1.91 NTU
	Minimum turbidity reading:	0.11 NTU	Standard deviation:	1.891 NTU
	95th percentile value:	6.37 NTU		
IFE Stastical Summary	Maximum IFE turbidity reading:	0.14 NTU	Average IFE turbidity value:	0.06 NTU
	Minimum IFEturbidity reading:	0.03 NTU	Standard deviation:	0.019 NTU
	95th percentile IFE value:	0.09 NTU		
CFE Stastical Summary	Maximum CFE turbidity reading:	0.09 NTU	Average CFE turbidity value:	0.05 NTU
	Minimum CFE turbidity reading:	0.03 NTU	Standard deviation:	0.009 NTU
	95th percentile CFE value:	0.06 NTU		

STATISTICAL ANALYSIS OF pH DATA

Last Zone pH Stastical Summary	Maximum pH reading:	7.60 pH	Average pH value:	7.32 pH
	Minimum pH reading:	7.08 pH	Standard deviation:	0.154 pH
	95th percentile value:	7.60 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 Utility

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022 **Plant ID No.:** 20831 **Connections:** 1,931

Month: February **Year:** 2020 **Population:** 6,759

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	0.792	0.660	23	160	1.2	2.8					0.05	X	X	X	0.05	0.05	3.1	
2	0.700	0.724	37	160	1.2	3.0					0.05	X	X	X	0.05	0.06	2.8	
3	0.802	0.738	13	140	1.1	3.1					X	X	X	0.06	0.06	0.06	2.3	
4	0.837	0.868	18	140	1.2	3.3					X	X	X	0.06	0.06	0.06	2.7	
5	0.737	0.607	19	140	1.1	3.2					X	X	X	X	0.06	0.05	2.4	
6	0.774	0.697	34	160	1.2	3.4					X	X	X	0.04	0.04	0.04	3.0	
7	0.792	0.871	16	160	1.2	4.1					X	X	X	0.03	0.04	0.05	2.7	
8	0.902	0.910	20	160	1.2	1.2					X	X	X	0.05	0.05	0.05	3.2	
9	0.871	0.642	16	160	1.2	0.3					X	X	X	0.04	0.04	0.05	3.2	
10	0.780	0.609	12	160	1.1	0.1					X	X	X	0.06	0.09	0.05	3.1	
11	0.724	0.865	11	160	1.1	0.1					X	X	X	X	0.04	0.05	2.5	
12	0.763	0.691	16	140	1.1	0.1					X	X	X	X	0.05	0.05	2.6	
13	0.745	0.535	16	140	1.1	1.9					X	X	X	X	0.05	0.06	2.9	
14	0.671	0.559	19	160	1.1	1.0					X	X	X	X	0.06	0.06	2.5	
15	0.775	0.642	27	160	1.1	1.0					X	X	X	X	0.06	0.06	3.2	
16	0.765	0.721	26	120	1.1	1.1					0.05	X	X	X	0.06	0.06	3.3	
17	0.894	0.662	17	140	6.3	1.0					0.05	X	X	0.04	0.04	0.04	3.6	
18	0.826	0.484	50	140	3.3	8.9					X	X	X	0.04	0.08	0.04	3.3	
19	0.796	0.320	23	140	3.4	6.7					X	X	X	0.06	0.06	0.05	3.1	
20	0.530	0.623	14	140	1.0	8.9					X	X	X	X	0.05	0.05	2.9	
21	0.762	0.598	21	140	1.5	0.8					X	X	X	0.06	0.05	0.05	2.7	
22	0.833	0.689	25	140	1.7	0.2					X	X	X	0.05	0.05	0.05	2.7	
23	0.727	0.829	16	140	1.8	0.1					X	X	X	X	0.05	0.05	2.3	
24	0.996	0.814	15	160	1.8	0.1					X	X	X	0.04	0.04	0.07	2.6	
25	0.935	0.833	21	140	1.2	1.1					0.06	X	X	0.05	0.05	0.06	2.9	
26	0.775	0.613	15	140	1.2	0.9					X	X	X	X	0.04	0.04	2.7	
27	0.727	0.716	25	140	1.3	4.7					X	X	X	0.05	0.04	0.05	3.1	
28	0.846	0.822	35	140	1.2	1.2					X	X	X	0.05	0.06	0.05	2.5	
29	0.816	0.900	27	140	1.2	1.3					X	X	X	0.06	0.06	0.05	3.0	
30																		
31																		
Total	22.893	20.242		Max	6.3	8.9												
Avg	0.789	0.698		Avg	1.6	2.3												
Max	0.996	0.910		95th %	3.4	8.0												
Min	0.530	0.320		Min	1.0	0.1												
				95th percentile based on data from all basins						6.4								

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: Luis G. Tapia **Certificate No. and Grade:** WS0014096, B **Date:** March 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: February 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		0.06		0.04		0.04													
2	0.04		0.04		0.04		0.04													
3	0.04		0.05		0.06		0.06													
4	0.04		0.05		0.06		0.06													
5	0.06		0.06		0.06		0.06													
6	0.06		0.04		0.07		0.06													
7	0.09		0.05		0.09		0.06													
8	0.08		0.04		0.05		0.06													
9	0.05		0.04		0.05		0.05													
10	0.04		0.05		0.14		0.14													
11	0.05		0.06		0.08		0.08													
12	0.05		0.06		0.07		0.08													
13	0.06		0.08		0.08		0.07													
14	0.06		0.05		0.06		0.06													
15	0.05		0.05		0.06		0.10													
16	0.05		0.05		0.05		0.10													
17	0.06		0.03		0.04		0.03													
18	0.04		0.05		0.08		0.06													
19	0.06		0.04		0.07		0.06													
20	0.04		0.06		0.08		0.04													
21	0.04		0.04		0.08		0.06													
22	0.10		0.04		0.06		0.08													
23	0.06		0.04		0.04		0.06													
24	0.06		0.07		0.06		0.07													
25	0.06		0.08		0.07		0.08													
26	0.06		0.06		0.10		0.07													
27	0.05		0.04		0.04		0.05													
28	0.04		0.04		0.07		0.04													
29	0.04		0.04		0.05		0.05													
30																				
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: Luis G. Tapia

Certificate No. and Grade: WS0014096, B

Date: March 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: February 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*	0.7	0.704	18.4	7.3				
	FCL *D1B*	0.8	0.704	18.1	7.3				
	FCL *D2*	0.8	0.352	18.7	7.3	2.60	54.90	5.21	
	CLA *D3*	3.3	0.704	18.2	7.3			(G)	
	D4								
2	FCL *D1A*	0.5	0.742	18.0	7.4				
	FCL *D1B*	0.6	0.742	17.8	7.3				
	FCL *D2*	0.7	0.371	17.9	7.4	2.09	40.62	4.17	
	CLA *D3*	3.4	0.742	18.8	7.3			(G)	
	D4								
3	FCL *D1A*	0.4	0.758	18.0	7.2				
	FCL *D1B*	0.5	0.758	18.0	7.1				
	FCL *D2*	0.5	0.379	17.0	7.4	1.57	27.74	3.14	
	CLA *D3*	3.1	0.758	18.0	7.3			(G)	
	D4								
4	FCL *D1A*	0.2	0.775	17.0	7.2				
	FCL *D1B*	0.3	0.775	18.0	7.1				
	FCL *D2*	0.5	0.388	18.0	7.1	1.54	26.60	3.09	
	CLA *D3*	3.0	0.775	17.0	7.3			(G)	
	D4								
5	FCL *D1A*	0.5	0.762	17.0	7.1				
	FCL *D1B*	0.6	0.762	17.0	7.3				
	FCL *D2*	0.7	0.381	17.0	7.3	1.85	35.72	3.70	
	CLA *D3*	3.2	0.762	17.0	7.5			(G)	
	D4								
6	FCL *D1A*	0.4	0.759	17.0	7.3				
	FCL *D1B*	0.3	0.759	17.0	7.3				
	FCL *D2*	0.2	0.379	16.6	7.4	1.09	15.01	2.18	
	CLA *D3*	3.2	0.759	17.1	7.2			(G)	
	D4								
7	FCL *D1A*	0.3	0.728	18.0	7.2				
	FCL *D1B*	0.2	0.728	18.1	7.2				
	FCL *D2*	0.2	0.364	17.3	7.3	1.22	14.20	2.43	
	CLA *D3*	3.3	0.728	19.6	7.3			(G)	
	D4								
8	FCL *D1A*	0.2	0.748	18.4	7.5				
	FCL *D1B*	0.2	0.748	19.4	7.4				
	FCL *D2*	0.4	0.374	19.7	7.4	1.52	23.31	3.04	
	CLA *D3*	3.4	0.748	19.5	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*	0.5	0.758	20.2	7.4				
	FCL *D1B*	0.4	0.758	20.1	7.4				
	FCL *D2*	0.5	0.379	19.4	7.4	1.91	35.34	3.81	
	CLA *D3*	3.3	0.758	19.4	7.4			(G)	
	D4								
10	FCL *D1A*	0.3	0.765	19.8	7.2				
	FCL *D1B*	0.3	0.765	19.8	7.2				
	FCL *D2*	0.4	0.383	19.2	7.3	1.73	27.84	3.46	
	CLA *D3*	3.1	0.765	21.5	7.3			(G)	
	D4								
11	FCL *D1A*	0.2	0.785	19.2	7.6				
	FCL *D1B*	0.2	0.785	19.0	7.5				
	FCL *D2*	0.3	0.392	18.3	7.6	1.08	17.53	2.16	
	CLA *D3*	2.7	0.785	18.3	7.6			(G)	
	D4								
12	FCL *D1A*	0.2	0.801	18.3	7.3				
	FCL *D1B*	0.2	0.801	18.3	7.4				
	FCL *D2*	0.6	0.400	18.5	7.5	1.54	30.79	3.08	
	CLA *D3*	2.8	0.801	18.5	7.5			(G)	
	D4								
13	FCL *D1A*	0.6	0.786	18.7	7.6				
	FCL *D1B*	0.5	0.786	18.7	7.6				
	FCL *D2*	0.6	0.393	17.0	7.6	1.70	34.09	3.40	
	CLA *D3*	3.3	0.786	18.1	7.5			(G)	
	D4								
14	FCL *D1A*	0.7	0.770	18.6	7.4				
	FCL *D1B*	0.7	0.770	18.5	7.5				
	FCL *D2*	0.8	0.385	17.1	7.6	2.11	45.18	4.22	
	CLA *D3*	3.6	0.770	17.7	7.5			(G)	
	D4								
15	FCL *D1A*	0.3	0.750	18.0	7.5				
	FCL *D1B*	0.3	0.750	18.1	7.6				
	FCL *D2*	0.6	0.375	17.1	7.6	1.61	30.10	3.23	
	CLA *D3*	3.3	0.750	18.3	7.5			(G)	
	D4								
16	FCL *D1A*	0.2	0.748	17.9	7.5				
	FCL *D1B*	0.4	0.748	18.1	7.4				
	FCL *D2*	0.4	0.374	18.0	7.6	1.55	25.71	3.09	
	CLA *D3*	3.6	0.748	18.3	7.3			(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: March 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: February 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*	0.3	0.722	18.8	7.4				
	FCL *D1B*	0.2	0.722	18.7	7.4				
	FCL *D2*	0.5	0.361	18.9	7.5	1.83	29.75	3.67	
	CLA *D3*	3.8	0.722	19.6	7.4			(G)	
	D4								
18	FCL *D1A*	0.3	0.728	19.3	7.2				
	FCL *D1B*	0.3	0.728	19.4	7.2				
	FCL *D2*	0.4	0.364	19.9	7.4	1.75	29.69	3.50	
	CLA *D3*	3.4	0.728	18.7	7.3			(G)	
	D4								
19	FCL *D1A*	0.4	0.739	21.4	7.2				
	FCL *D1B*	0.2	0.739	19.9	7.1				
	FCL *D2*	0.4	0.370	21.6	7.2	1.68	27.82	3.36	
	CLA *D3*	3.0	0.739	19.4	7.1			(G)	
	D4								
20	FCL *D1A*	0.2	0.762	19.5	7.6				
	FCL *D1B*	0.2	0.762	19.4	7.6				
	FCL *D2*	0.3	0.381	19.7	7.6	1.19	19.27	2.38	
	CLA *D3*	2.9	0.762	18.8	7.6			(G)	
	D4								
21	FCL *D1A*	0.3	0.788	18.5	7.5				
	FCL *D1B*	0.3	0.788	18.8	7.5				
	FCL *D2*	0.4	0.394	18.5	7.5	1.25	21.47	2.49	
	CLA *D3*	2.8	0.788	18.5	7.6			(G)	
	D4								
22	FCL *D1A*	0.3	0.808	18.8	7.3				
	FCL *D1B*	0.3	0.808	19.0	7.3				
	FCL *D2*	0.3	0.404	18.6	7.3	1.14	18.02	2.29	
	CLA *D3*	2.7	0.808	18.6	7.1			(G)	
	D4								
23	FCL *D1A*	0.2	0.818	19.8	7.2				
	FCL *D1B*	0.3	0.818	19.7	7.2				
	FCL *D2*	0.5	0.409	19.3	7.3	1.62	28.36	3.24	
	CLA *D3*	2.9	0.818	20.5	7.3			(G)	
	D4								
24	FCL *D1A*	0.1	0.816	19.4	7.1				
	FCL *D1B*	0.1	0.816	19.2	7.1				
	FCL *D2*	0.2	0.408	19.0	7.2	1.09	14.44	2.17	
	CLA *D3*	2.7	0.816	20.2	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=
25	FCL *D1A*	0.2	0.780	18.4	7.1				
	FCL *D1B*	0.2	0.780	19.0	7.0				
	FCL *D2*	0.2	0.390	18.4	7.2	1.09	13.01	2.18	
	CLA *D3*	2.8	0.780	20.8	7.1			(G)	
	D4								
26	FCL *D1A*	0.5	0.760	18.4	7.4				
	FCL *D1B*	0.5	0.760	18.8	7.3				
	FCL *D2*	0.5	0.380	18.8	7.4	1.80	33.67	3.60	
	CLA *D3*	3.2	0.760	19.0	7.2			(G)	
	D4								
27	FCL *D1A*	0.4	0.757	18.1	7.4				
	FCL *D1B*	0.2	0.757	19.0	7.3				
	FCL *D2*	0.2	0.379	18.9	7.4	1.21	14.89	2.42	
	CLA *D3*	3.4	0.757	19.5	7.2			(G)	
	D4								
28	FCL *D1A*	0.6	0.787	18.3	7.2				
	FCL *D1B*	0.8	0.787	18.6	7.2				
	FCL *D2*	0.6	0.393	18.3	7.2	1.94	36.48	3.88	
	CLA *D3*	3.0	0.787	19.3	7.2			(G)	
	D4								
29	FCL *D1A*	0.6	0.806	19.1	7.3				
	FCL *D1B*	0.5	0.806	19.2	7.3				
	FCL *D2*	0.3	0.403	18.8	7.2	1.59	25.65	3.17	
	CLA *D3*	3.4	0.806	19.4	7.2			(G)	
	D4								
30	*D1A*								
	D1B								
	D2								
	D3								
	D4								
31	*D1A*								
	D1B								
	D2								
	D3								
	D4								
					Max	2.60	54.90	5.21	
					Min	1.08	13.01	2.16	
					Avg	1.58	27.49	3.16	
					SD	0.36	9.73	0.72	

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: March 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: February

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	2/4	140	2.92	2.31	20.9	15	1.39			1.39
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	2.92	2.31	20.89		1.39			1.39
Max		140.00	2.92	2.31	20.89		1.39			1.39
Min		140.00	2.92	2.31	20.89		1.39			1.39

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	2.92	2.31	20.9	NA	1.39

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 D Garcia

Certificate No. and Grade: WS0014096, B

Date: March 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:** February **Year:** 2020

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	0.306	0.646	90.67	41.84	1.00	41.84	0.000	0.000
	2	0.405	0.858	90.67	32.88	1.00	32.88	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
2	1	0.288	0.654	88.59	44.78	1.00	44.78	0.000	0.000
	2	0.352	0.838	88.59	36.10	1.00	36.10	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
3	1	0.320	0.654	89.08	0.00	1.00	0.00	0.003	0.25
	2	0.423	0.877	89.08	0.00	1.00	0.00	0.012	
	3	X	X	X	X	X	X	X	
	4								
	5								
4	1	0.342	0.836	89.96	4.62	1.00	4.62	0.000	0.000
	2	0.449	1.120	89.96	26.28	1.00	26.28	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
5	1	0.303	0.697	87.39	0.00	1.00	0.00	0.004	0.25
	2	0.365	0.927	87.39	0.00	1.00	0.00	0.004	
	3	X	X	X	X	X	X	X	
	4								
	5								
6	1	0.320	0.691	89.40	36.10	1.00	36.10	0.000	0.000
	2	0.369	0.806	89.40	28.57	1.00	28.57	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
7	1	0.316	0.642	87.93	40.61	1.00	40.61	0.000	0.000
	2	0.372	0.817	87.93	15.82	1.00	15.82	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
8	1	0.367	0.639	89.10	0.00	1.00	0.00	0.006	0.25
	2	0.469	0.842	89.10	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/cm^2)	Sensor CF	Adjusted Minimum UV Dose (mJ/cm^2)	Total Off-Spec Product. (MG)	Consec. Off-Spec Hours (hr)
9	1	0.360	0.658	90.40	18.39	1.00	18.39	0.000	0.000
	2	0.468	0.874	90.40	18.36	1.00	18.36	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
10	1	0.328	0.701	90.89	0.00	1.00	0.00	0.008	0.25
	2	0.431	0.952	90.89	0.00	1.00	0.00	0.011	
	3	X	X	X	X	X	X	X	
	4								
	5								
11	1	0.289	0.699	89.37	0.00	1.00	0.00	0.012	0.50
	2	0.335	0.814	89.37	0.00	1.00	0.00	0.013	
	3	X	X	X	X	X	X	X	
	4								
	5								
12	1	0.295	0.966	89.15	0.00	1.00	0.00	0.007	0.25
	2	0.352	0.950	89.15	0.00	1.00	0.00	0.009	
	3	X	X	X	X	X	X	X	
	4								
	5								
13	1	0.310	1.005	89.27	0.00	1.00	0.00	0.007	0.25
	2	0.357	1.085	89.27	0.00	1.00	0.00	0.009	
	3	X	X	X	X	X	X	X	
	4								
	5								
14	1	0.271	0.692	87.71	40.06	1.00	40.06	0.000	0.000
	2	0.312	0.797	87.71	28.70	1.00	28.70	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
15	1	0.300	0.673	89.59	30.51	1.00	30.51	0.000	0.000
	2	0.380	0.874	89.59	32.73	1.00	32.73	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
16	1	0.303	0.639	88.81	37.82	1.00	37.82	0.000	0.000
	2	0.372	0.844	88.81	30.10	1.00	30.10	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								

SUBMITTED BY: Luis G. Tapia

Certificate No. and Grade: WS0014096, B **Date:** March 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: February Year: 2020

TRUE

VALIDATED OPERATIONAL CONDITIONS

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

PERFORMANCE DATA

Date	Reactor	Total Product. (MG)	Max. Flow Rate (MGD)	Min UV Trans. (%)	Minimum Meas'd UV Dose (mJ/cm^2)	Sensor CF	Adjusted Minimum UV Dose (mJ/cm^2)	Total Off-Spec Product. (MG)	Consec. Off-Spec Hours (hr)
17	1	0.302	0.634	89.40	0.00	1.00	0.00	0.003	0.25
	2	0.392	0.851	89.40	0.00	1.00	0.00	0.013	
	3	X	X	X	X	X	X	X	
	4								
	5								
18	1	0.291	0.665	83.07	0.00	1.00	0.00	0.002	0.50
	2	0.363	0.859	83.07	0.00	1.00	0.00	0.003	
	3	X	X	X	X	X	X	X	
	4								
	5								
19	1	0.302	0.970	86.86	25.22	1.00	25.22	0.000	0.000
	2	0.351	1.177	86.86	17.10	1.00	17.10	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
20	1	0.223	0.711	87.35	33.69	1.00	33.69	0.000	0.000
	2	0.297	0.931	87.35	12.94	1.00	12.94	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
21	1	0.315	0.953	88.15	0.00	1.00	0.00	0.007	0.25
	2	0.417	1.268	88.15	0.00	1.00	0.00	0.010	
	3	X	X	X	X	X	X	X	
	4								
	5								
22	1	0.322	0.728	87.88	0.00	1.00	0.00	0.007	0.25
	2	0.421	0.966	87.88	0.00	1.00	0.00	0.009	
	3	X	X	X	X	X	X	X	
	4								
	5								
23	1	0.311	0.748	83.98	0.00	1.00	0.00	0.007	0.25
	2	0.378	1.018	83.98	0.00	1.00	0.00	0.010	
	3	X	X	X	X	X	X	X	
	4								
	5								
24	1	0.338	1.124	84.78	24.32	1.00	24.32	0.000	0.000
	2	0.431	1.500	84.78	17.60	1.00	17.60	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)
25	1	0.313	0.797	77.31	31.42	1.00	31.42	0.000	0.000
	2	0.413	1.042	77.31	25.07	1.00	25.07	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
26	1	0.317	0.750	87.44	31.40	1.00	31.40	0.000	0.000
	2	0.360	0.866	87.44	10.37	1.00	10.37	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
27	1	0.272	0.696	85.61	36.69	1.00	36.69	0.000	0.000
	2	0.295	0.937	85.61	28.71	1.00	28.71	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
28	1	0.294	0.770	87.32	2.95	1.00	2.95	0.000	0.000
	2	0.384	0.986	87.32	26.98	1.00	26.98	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
29	1	0.305	0.761	87.96	0.00	1.00	0.00	0.004	0.25
	2	0.396	0.974	87.96	0.00	1.00	0.00	0.005	
	3	X	X	X	X	X	X	X	
	4								
	5								
30	1								
	2								
	3								
	4								
	5								
31	1								
	2								
	3								
	4								
	5								

SUBMITTED BY: Luis G. Tapia

Certificate No. and Grade: WS0014096, B Date: March 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:** February **Year:** 2020

DAILY MINIMUM INACTIVATION

Reactor Range	Date	Min Dose (mJ/cm²)	Inactivation Credit Achieved Giardia Log	Virus Log	Crypto Log	Reactor Range	Date	Min Dose (mJ/cm²)	Min Inactivation Giardia Log	Virus Log	Crypto Log
1 to 3	1	32.88	4.00	0.32	1.00	1 to 3	9	18.36	3.74	0.00	1.00
	2	36.10	4.00	0.42	1.00		10	0.00*	1.00	0.00	1.00
	3	0.00*	1.00	0.00	1.00		11	0.00*	1.00	0.00	1.00
	4	4.62	1.91	0.00	1.00		12	0.00*	1.00	0.00	1.00
	5	0.00*	1.00	0.00	1.00		13	0.00*	1.00	0.00	1.00
	6	28.57	4.00	0.19	1.00		14	28.70	4.00	0.19	1.00
	7	15.82	3.56	0.00	1.00		15	30.51	4.00	0.25	1.00
	8	0.00*	1.00	0.00	1.00		16	30.10	4.00	0.24	1.00

DAILY MINIMUM INACTIVATION

Reactor Range	Date	Min Dose (mJ/cm²)	Min Inactivation Giardia Log	Virus Log	Crypto Log	Reactor Range	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	25.07	4.00	0.08	1.00
	18	0.00*	1.00	0.00	1.00		26	10.37	2.90	0.00	1.00
	19	17.10	3.65	0.00	1.00		27	28.71	4.00	0.19	1.00
	20	12.94	3.24	0.00	1.00		28	2.95	1.48	0.00	1.00
	21	0.00*	1.00	0.00	1.00		29	0.00*	1.00	0.00	1.00
	22	0.00*	1.00	0.00	1.00		30				1.00
	23	0.00*	1.00	0.00	1.00		31				1.00
	24	17.60	3.69	0.00	1.00						

Total volume of water treated by all CDA reactors:	20.03	MG
Total volume of off-spec water produced by all CDA reactors:	0.19	MG
Percentage of off-spec water produced by all CDA reactors:	0.96	%
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: 12, 17, 18, 19, 24, 25, 27, 28,

SUBMITTED BY: Luis G. Tapia

Certificate No. and Grade: WS0014096, B **Date:** March 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: February **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	76.50	81.50	0.94	NA	1.00
		2							
		3							
	1.00	4							
	Calibration Date	5							
		6							
	2/1/20	7							
	New Sensor CF	8							
		9							
	1.00	10							
UVCD No. 2	Previous Month's Sensor CF	1	38	44	77.50	74.30	1.04	NA	1.00
		2							
		3							
	1.00	4							
	Calibration Date	5							
		6							
	2/1/20	7							
	New Sensor CF	8							
		9							
	1.00	10							
UVCD No. 3	Previous Month's Sensor CF	1	39	44	4.90	4.00	1.23		off-line
		2							
		3							
	1.00	4							
	Calibration Date	5							
		6							
	2/1/20	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: March 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:** February **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: Luis G. Tapia

Certificate No. and Grade: WS0014096, B **Date:** March 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: February

Year: 2020

CALIBRATION DATA

Benchtop UVT Analyzer Serial Number: UVT 08-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	2/1/20	78713	92.60	92.60	0.00	NA	NA
	2	2/3/20	78713	92.50	92.40	0.10	NA	NA
	3	2/10/20	78713	92.70	93.40	0.70	NA	NA
	4	2/17/20	78713	91.60	92.90	1.30	NA	NA
	5	2/24/20	78713	92.10	93.30	1.20	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: UVT 08-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: March 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:** February **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																	
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: February 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	6.60					6.60	55.22					55.22
2	4.50					4.50	1.00					1.00	6.60					6.60	41.03					41.03
3	4.50					4.50	1.00					1.00	2.57					2.57	27.74					27.74
4	4.50					4.50	1.00					1.00	3.46					3.46	26.60					26.60
5	4.50					4.50	1.00					1.00	2.85					2.85	35.72					35.72
6	4.50					4.50	1.00					1.00	5.09					5.09	15.20					15.20
7	4.50					4.50	1.00					1.00	4.77					4.77	14.20					14.20
8	4.50					4.50	1.00					1.00	2.52					2.52	23.31					23.31
9	4.50					4.50	1.00					1.00	5.65					5.65	35.34					35.34
10	4.50					4.50	1.00					1.00	2.73					2.73	27.84					27.84
11	4.50					4.50	1.00					1.00	2.08					2.08	17.53					17.53
12	4.50					4.50	1.00					1.00	2.54					2.54	30.79					30.79
13	4.50					4.50	1.00					1.00	2.70					2.70	34.09					34.09
14	4.50					4.50	1.00					1.00	6.11					6.11	45.38					45.38
15	4.50					4.50	1.00					1.00	5.61					5.61	30.35					30.35
16	4.50					4.50	1.00					1.00	5.55					5.55	25.94					25.94
17	4.50					4.50	1.00					1.00	2.83					2.83	29.75					29.75
18	4.50					4.50	1.00					1.00	2.75					2.75	29.69					29.69
19	4.50					4.50	1.00					1.00	5.33					5.33	27.82					27.82
20	4.50					4.50	1.00					1.00	4.43					4.43	19.27					19.27
21	4.50					4.50	1.00					1.00	2.25					2.25	21.47					21.47
22	4.50					4.50	1.00					1.00	2.14					2.14	18.02					18.02
23	4.50					4.50	1.00					1.00	2.62					2.62	28.36					28.36
24	4.50					4.50	1.00					1.00	4.77					4.77	14.44					14.44
25	4.50					4.50	1.00					1.00	5.09					5.09	13.09					13.09
26	4.50					4.50	1.00					1.00	4.71					4.71	33.67					33.67
27	4.50					4.50	1.00					1.00	5.21					5.21	15.08					15.08
28	4.50					4.50	1.00					1.00	3.42					3.42	36.48					36.48
29	4.50					4.50	1.00					1.00	2.59					2.59	25.65					25.65
30																								
31																								
MIN	4.50					4.50	1.00					1.00	2.08					2.08	13.09					13.09
AVG	4.50					4.50	1.00					1.00	3.99					3.99	27.55					27.55
MAX	4.50					4.50	1.00					1.00	6.60					6.60	55.22					55.22