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: February 2019

I certify that I am familiar with the information contained in this report and that, to the best of my knowledge, the information is true, complete, and accurate.

Operator's Signature:

Certificate No. & Grade: WS0012772, B

Date: February 10, 2019

TREATMENT PLANT PERFORMANCE

Total number of turbidity readings:	87	Number of 4-hour periods when plant was off-line:	81
Number of readings above 0.10 NTU:	3	Number of 4-hour periods when plant was on-line but turbidity data was not collected:	0
Number of readings above 0.3 NTU:	0		
Number of readings above 0.5 NTU:	0	Number of days when plant was on-line but individual filter turbidity data was not collected:	0
Number of readings above 1.0 NTU:	0		
Maximum allowable turbidity level:	0.3	Number of days with readings above 1.0 NTU:	0 (2)
Percentage of readings above this limit:	0.0 % (1)	Number of days with readings above 5.0 NTU:	0 (3)

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

Watershed Protection:	0.0	Conventional Treatment:	3.0	Second Stage Filtration:	0.0
Bank Filtration:	0.0	Enhanced Filter Performance:	0.5	UV:	1.0
Presedimentation with Coagulation:	0.0	Bag and Cartridge Filtration:	0.0	Ozone, Chlorine Dioxide:	0.0
Two-Stage Lime Softening:	0.0	Membrane Filtration:	0.0	Perform. Demonstration:	0.0

Number of days with low inactivation (including UV) for no more than 4.0 consecutive hours:	0	Average log inactivation (including UV) for Giardia:	6.50
		Average log inactivation) (including UV) for viruses:	79.17
Number of days with low inactivation (including UV) for more than 4.0 consecutive hours:	0 (4)	Number of days when profiling data was not collected:	0
		Number of days when CT data was not collected:	0

Minimum disinfectant residual required leaving the plant:	0.5 mg/L, measured as Total Chlorine		
Number of days with a low residual for no more than 4.0 consecutive hours:	0	Minimum pH in the last disinfection zone:	6.70
		Number of days with pH below 7.0 in the last disinfection zone:	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:	40 (at least 28 required) (8)		
Average disinfectant residual value:	2.19	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:	9.21 NTU	Average turbidity value:	2.17 NTU
	Minimum turbidity reading:	0.19 NTU	Standard deviation:	2.167 NTU
	95th percentile value:	7.36 NTU		
IFE Stastical Summary	Maximum IFE turbidity reading:	0.00 NTU	Average IFE turbidity value:	0.04 NTU
	Minimum IFEturbidity reading:	0.29 NTU	Standard deviation:	0.088 NTU
	95th percentile IFE value:	0.04 NTU		
CFE Stastical Summary	Maximum CFE turbidity reading:	0.15 NTU	Average CFE turbidity value:	0.05 NTU
	Minimum CFE turbidity reading:	0.01 NTU	Standard deviation:	0.028 NTU
	95th percentile CFE value:	0.10 NTU		

STATISTICAL ANALYSIS OF pH DATA

Last Zone pH Stastical Summary	Maximum pH reading:	7.60 pH	Average pH value:	7.18 pH
	Minimum pH reading:	6.70 pH	Standard deviation:	0.234 pH
	95th percentile value:	7.52 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:** 1,930

Month: February **Year:** 2019 **Population:** 6,755

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	0.874	0.316	30	160	2.2	0.9					X	X	0.03	0.02	0.02	0.02	1.5	
2	0.757	0.412	29	160	2.7	0.3					X	X	X	0.02	0.02	0.01	1.3	
3	0.804	0.441	26	180	0.8	1.4					X	X	X	0.01	0.01	0.02	1.3	
4	0.851	0.594	22	160	3.9	1.2					X	X	X	0.03	0.04	0.05	1.1	
5	0.864	0.551	31	160	0.7	2.3					X	X	X	0.07	0.09	0.09	0.9	
6	0.921	0.631	20	160	0.6	1.1					X	X	X	0.09	0.10	0.09	0.7	
7	0.848	0.565	20	160	0.6	1.2					0.04	X	X	X	0.07	0.02	0.8	
8	0.771	0.467	19	160	0.6	1.4					X	X	X	X	0.04	0.03	1.1	
9	1.049	0.620	26	140	1.3	1.5					0.05	X	X	0.03	0.02	0.02	0.9	
10	0.861	0.407	33	140	1.3	1.4					X	X	X	0.04	0.06	0.07	0.8	
11	0.948	0.500	30	140	2.2	2.4					X	X	X	0.03	0.02	0.02	0.9	
12	0.779	0.427	27	140	2.4	5.9					X	X	X	0.08	0.07	0.07	0.6	
13	0.933	0.579	21	160	0.8	0.7					X	X	X	0.06	0.05	0.05	0.7	
14	0.925	0.519	25	160	0.8	7.2					X	X	X	0.04	0.02	0.02	2.5	
15	0.899	0.479	25	140	1.0	0.7					X	X	X	0.02	0.02	0.02	2.5	
16	0.787	0.481	21	160	1.7	0.7					0.02	X	X	X	0.06	0.03	2.6	
17	0.907	0.609	19	160	2.4	0.8					0.04	X	X	0.06	0.07	0.04	1.8	
18	0.843	0.573	41	160	1.3	0.9					0.02	X	X	0.05	0.05	0.04	2.7	
19	0.699	0.405	13	160	5.3	6.3					X	X	X	0.02	0.04	0.05	2.9	
20	0.940	0.429	15	140	4.9	3.4					X	X	X	0.06	0.07	0.04	2.9	
21	0.817	0.298	17	160	1.1	1.6					X	X	X	0.11	0.05	0.15	1.9	
22	0.862	0.622	18	140	1.0	2.0					X	X	X	X	0.07	0.08	2.2	
23	0.955	0.249	24	140	4.3	7.8					0.07	X	X	0.08	0.08	0.08	3.0	
24	0.790	0.537	39	140	0.5	0.7					X	X	X	X	0.03	0.02	3.0	
25	0.878	0.626	18	180	0.2	3.4					X	X	X	0.04	0.07	0.06	2.7	
26	0.973	0.558	18	180	0.4	1.2					0.06	X	X	0.05	0.05	0.04	2.8	
27	0.905	0.486	13	160	9.2	0.5					X	X	X	0.05	0.05	0.06	2.7	
28	0.909	0.382	14	160	0.4	8.2					X	X	X	0.10	0.07	0.12	2.6	
29																		
30																		
31																		

	Raw Water Pumpage (MGD)	Treated Water Pumpage (MGD)
Total	24.349	13.763
Avg	0.870	0.492
Max	1.049	0.631
Min	0.699	0.249

	1	2	3	4	5	6
Max	9.2	8.2				
Avg	1.9	2.4				
95th %	5.1	7.6				
Min	0.2	0.3				

95th percentile based on data from all basins: 7.4

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: Tomas Sanchez Jr **Certificate No. and Grade:** WS0012772, B **Date:** February 10, 2019

SURFACE WATER MONTHLY OPERATING REPORT

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

Filter Data Page

PUBLIC WATER SYSTEM NAME: Webb County Water Utilities

PLANT NAME OR NUMBER: Rio Bravo

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

PERFORMANCE DATA

INDIVIDUAL FILTER TURBIDITY

Date	Filter No. 1		Filter No. 2		Filter No. 3		Filter No. 4		Filter No. 5		Filter No. 6		Filter No. 7		Filter No. 8		Filter No. 9		Filter No. 10	
	Max	4 Hrs	Max	4 Hrs	Max	4 Hrs	Max	4 Hrs	Max	4 Hrs	Max	4 Hrs	Max	4 Hrs	Max	4 Hrs	Max	4 Hrs	Max	4 Hrs
1	0.09		0.12		0.04		0.05													
2	0.05		0.09		0.04		0.05													
3	0.04		0.14		0.04		0.07													
4	0.09		0.08		0.05		0.05													
5	0.10		0.05		0.06		0.06													
6	0.14		0.05		0.06		0.06													
7	0.04		0.15		0.10		0.05													
8	0.16		0.17		0.06		0.27													
9	0.06		0.11		0.08		0.08													
10	0.08		0.08		0.10		0.07													
11	0.06		0.08		0.05		0.11													
12	0.10		0.06		0.06		0.07													
13	0.08		0.06		0.05		0.05													
14	0.10		0.12		0.05		0.04													
15	0.28		0.29		0.05		0.10													
16	0.08		0.05		0.09		0.05													
17	0.14		0.12		0.11		0.08													
18	0.07		0.07		0.04		0.08													
19	0.04		0.08		0.06		0.05													
20	0.06		0.06		0.09		0.11													
21	0.07		0.10		0.08		0.06													
22	0.06		0.15		0.08		0.08													
23	0.09		0.10		0.08		0.08													
24	0.10		0.15		0.08		0.14													
25	0.10		0.12		0.08		0.12													
26	0.08		0.07		0.10		0.10													
27	0.13		0.15		0.12		0.09													
28	0.14		0.07		0.08		0.10													
29																				
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: Tomas Sanchez Jr. Certificate No. and Grade: WS0012772, B Date: February 10, 2019

SURFACE WATER MONTHLY OPERATING REPORT

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

Disinfection Data Page

PUBLIC WATER SYSTEM NAME: Webb County Water Utilities

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022 **Plant ID No.:** 20831 **Month:** February **Year:** 2019

DISINFECTION PROCESS PARAMETERS

APPROVED CT STUDY PARAMETERS						PERFORMANCE STANDARDS	
	Disinfection Zones					Log Inactivations	
Parameters	D1A	D1B	D2	D3	D4	Giardia lamblia Cysts	Viruses
Flow Rate (MGD)	1.250	1.250	0.625	1.250		0.5	2.0
T_{10} (minutes)	7.9	7.9	21.0	50.4			

PERFORMANCE DATA

DISINFECTION PROCESS DATA

Date	Disinfectant	C (mg/L)	Flow (MGD)	Temp (°C)	pH	Giardia Log	Virus Log	Inact. Ratio	Time*
1	FCL *D1A*	1.2	0.738	17.3	7.3				
	FCL *D1B*	1.5	0.738	17.5	7.4				
	FCL *D2*	1.6	0.369	17.8	7.3	3.54	92.62	7.08	
	CLA *D3*	3.0	0.738	16.4	7.3			(G)	
	D4								
2	FCL *D1A*	1.3	0.763	20.4	7.3				
	FCL *D1B*	1.6	0.763	20.3	7.4				
	FCL *D2*	1.5	0.381	18.6	7.4	3.49	95.92	6.99	
	CLA *D3*	2.2	0.763	19.1	7.3			(G)	
	D4								
3	FCL *D1A*	1.1	0.801	20.6	7.4				
	FCL *D1B*	1.3	0.801	20.7	7.4				
	FCL *D2*	1.3	0.400	19.0	7.5	2.83	79.61	5.65	
	CLA *D3*	1.6	0.801	18.7	7.3			(G)	
	D4								
4	FCL *D1A*	1.2	0.828	18.0	7.1				
	FCL *D1B*	1.1	0.828	18.0	7.2				
	FCL *D2*	0.5	0.414	18.0	7.3	1.78	39.85	3.57	
	CLA *D3*	2.1	0.828	18.0	7.5			(G)	
	D4								
5	FCL *D1A*	1.0	0.835	19.0	7.1				
	FCL *D1B*	0.9	0.835	19.0	7.2				
	FCL *D2*	0.6	0.417	19.0	7.2	1.90	42.50	3.80	
	CLA *D3*	1.9	0.835	19.0	7.5			(G)	
	D4								
6	FCL *D1A*	1.1	0.806	19.0	7.2				
	FCL *D1B*	1.0	0.806	19.0	7.1				
	FCL *D2*	1.8	0.403	19.0	7.4	3.49	98.76	6.97	
	CLA *D3*	2.0	0.806	19.0	7.6			(G)	
	D4								
7	FCL *D1A*	1.4	0.786	19.6	7.5				
	FCL *D1B*	1.2	0.786	19.8	7.4				
	FCL *D2*	1.8	0.393	18.6	7.5	3.55	104.45	7.10	
	CLA *D3*	2.3	0.786	19.1	7.5			(G)	
	D4								
8	FCL *D1A*	1.6	0.761	15.1	7.5				
	FCL *D1B*	1.9	0.761	15.4	7.6				
	FCL *D2*	1.8	0.380	17.8	7.5	3.22	102.04	6.45	
	CLA *D3*	1.5	0.761	16.5	7.5			(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*	2.0	0.748	15.1	7.4				
	FCL *D1B*	2.1	0.748	15.2	7.4				
	FCL *D2*	2.0	0.374	16.6	7.4	3.46	108.30	6.92	
	CLA *D3*	1.1	0.748	14.5	7.4			(G)	
	D4								
10	FCL *D1A*	1.6	0.761	16.9	7.5				
	FCL *D1B*	1.7	0.761	16.2	7.4				
	FCL *D2*	1.3	0.380	16.2	7.5	2.73	78.20	5.46	
	CLA *D3*	1.9	0.761	16.9	7.4			(G)	
	D4								
11	FCL *D1A*	1.5	0.783	17.5	7.4				
	FCL *D1B*	1.5	0.783	17.2	7.4				
	FCL *D2*	1.6	0.391	17.8	7.4	3.03	91.25	6.06	
	CLA *D3*	1.1	0.783	16.6	7.3			(G)	
	D4								
12	FCL *D1A*	1.2	0.807	18.3	7.4				
	FCL *D1B*	1.1	0.807	18.5	7.3				
	FCL *D2*	1.4	0.403	18.3	7.3	2.79	77.35	5.59	
	CLA *D3*	1.3	0.807	17.8	7.2			(G)	
	D4								
13	FCL *D1A*	1.0	0.840	18.0	6.8				
	FCL *D1B*	1.9	0.840	17.6	7.1				
	FCL *D2*	1.1	0.420	17.9	6.7	2.67	59.84	5.33	
	CLA *D3*	1.1	0.840	17.1	6.9			(G)	
	D4								
14	FCL *D1A*	1.2	0.819	18.0	7.2				
	FCL *D1B*	1.4	0.819	18.0	7.1				
	FCL *D2*	1.2	0.409	18.0	7.1	3.20	70.01	6.39	
	CLA *D3*	3.8	0.819	19.0	6.9			(G)	
	D4								
15	FCL *D1A*	1.0	0.797	20.0	6.7				
	FCL *D1B*	1.9	0.797	20.0	7.1				
	FCL *D2*	1.2	0.398	20.0	7.3	3.40	78.22	6.79	
	CLA *D3*	3.2	0.797	19.0	7.1			(G)	
	D4								
16	FCL *D1A*	1.6	0.778	18.8	7.2				
	FCL *D1B*	1.5	0.778	19.4	7.2				
	FCL *D2*	1.5	0.389	17.3	7.3	3.68	90.47	7.36	
	CLA *D3*	3.7	0.778	17.8	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:** February 10, 2019

SURFACE WATER MONTHLY OPERATING REPORT

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

PUBLIC WATER SYSTEM NAME: Webb County Water Utilities

PLANT NAME OR NUMBER: Rio Bravo

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

DISINFECTION PROCESS PARAMETERS

APPROVED CT STUDY PARAMETERS						PERFORMANCE STANDARDS	
	Disinfection Zones					Log Inactivations	
Parameters	D1A	D1B	D2	D3	D4	Giardia lamblia Cysts	Virus
Flow Rate (MGD)	1.25	1.25	0.63	1.25		0.5	2.0
T_{10} (minutes)	7.90	7.90	21.00	50.40			

PERFORMANCE DATA

DISINFECTION PROCESS DATA

Date	Disinfectant	C (mg/L)	Flow (MGD)	Temp (°C)	pH	Giardia Log	Virus Log	Inact. Ratio	Time=
17	FCL *D1A*	1.0	0.755	19.0	7.1				
	FCL *D1B*	1.3	0.755	19.0	7.0				
	FCL *D2*	0.7	0.377	19.0	7.0	2.73	53.42	5.46	
	CLA *D3*	3.4	0.755	19.0	6.7			(G)	
	D4								
18	FCL *D1A*	1.2	0.743	19.0	7.2				
	FCL *D1B*	1.4	0.743	18.9	7.1				
	FCL *D2*	1.3	0.371	19.2	7.2	3.65	85.63	7.29	
	CLA *D3*	3.4	0.743	18.8	7.1			(G)	
	D4								
19	FCL *D1A*	2.0	0.753	18.3	7.1				
	FCL *D1B*	1.4	0.753	18.4	7.1				
	FCL *D2*	1.3	0.376	18.9	7.0	3.69	85.96	7.38	
	CLA *D3*	2.9	0.753	17.3	6.9			(G)	
	D4								
20	FCL *D1A*	1.8	0.789	17.3	7.2				
	FCL *D1B*	2.0	0.789	17.2	7.2				
	FCL *D2*	1.6	0.394	17.7	7.0	3.94	98.06	7.88	
	CLA *D3*	3.1	0.789	17.4	7.1			(G)	
	D4								
21	FCL *D1A*	0.9	0.803	21.0	7.0				
	FCL *D1B*	1.3	0.803	21.1	7.0				
	FCL *D2*	1.4	0.401	18.9	7.2	3.67	84.58	7.35	
	CLA *D3*	3.4	0.803	20.9	7.0			(G)	
	D4								
22	FCL *D1A*	1.2	0.819	19.9	7.2				
	FCL *D1B*	1.0	0.819	19.6	7.3				
	FCL *D2*	1.0	0.409	19.6	7.3	2.91	67.61	5.82	
	CLA *D3*	3.2	0.819	19.6	7.1			(G)	
	D4								
23	FCL *D1A*	1.2	0.821	18.0	7.2				
	FCL *D1B*	1.1	0.821	18.0	7.2				
	FCL *D2*	0.8	0.410	18.0	7.1	2.41	50.96	4.82	
	CLA *D3*	3.1	0.821	18.0	7.0			(G)	
	D4								
24	FCL *D1A*	1.6	0.782	18.5	7.3				
	FCL *D1B*	1.8	0.782	18.5	7.2				
	FCL *D2*	1.6	0.391	18.4	7.3	3.96	101.95	7.91	
	CLA *D3*	3.3	0.782	19.1	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*	1.5	0.761	19.8	7.1				
	FCL *D1B*	1.5	0.761	19.1	7.1				
	FCL *D2*	1.0	0.380	18.8	7.0	3.47	76.25	6.94	
	CLA *D3*	3.5	0.761	18.6	6.9			(G)	
	D4								
26	FCL *D1A*	1.6	0.751	18.4	7.2				
	FCL *D1B*	1.5	0.751	17.9	7.8				
	FCL *D2*	1.2	0.375	18.0	7.1	3.29	78.55	6.57	
	CLA *D3*	3.5	0.751	18.4	6.9			(G)	
	D4								
27	FCL *D1A*	0.9	0.793	20.2	7.2				
	FCL *D1B*	0.7	0.793	20.5	7.2				
	FCL *D2*	1.0	0.396	19.3	7.2	2.80	61.58	5.60	
	CLA *D3*	2.9	0.793	20.0	7.0			(G)	
	D4								
28	FCL *D1A*	0.4	0.806	20.1	7.3				
	FCL *D1B*	0.4	0.806	20.3	7.3				
	FCL *D2*	1.0	0.403	19.4	7.5	2.43	56.49	4.86	
	CLA *D3*	3.0	0.806	19.8	7.4			(G)	
	D4								
29	*D1A*								
	D1B								
	D2								
	D3								
	D4								
30	*D1A*								
	D1B								
	D2								
	D3								
	D4								
31	*D1A*								
	D1B								
	D2								
	D3								
	D4								
					Max	3.96	108.30	7.91	
					Min	1.78	39.85	3.57	
					Avg	3.13	78.94	6.26	
					SD	0.56	18.80	1.11	

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: February 10, 2019

MONTHLY TOTAL ORGANIC CARBON REMOVAL REPORT (TOCMOR)

FOR SURFACE WATER OR GROUND WATER UNDER THE INFLUENCE OF SURFACE WATER SYSTEMS

PUBLIC WATER SYSTEM NAME: Webb County Water Utilities

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022

Plant ID No.: 20831

Month: February

Year: 2019

Type of treatment: [X] Conventional [ ] Unconventional explain:

Note: Systems are required to run one TOC Sample Set every month. Additional space is provided for those systems that do additional sampling

Test No.	Test Date	Monthly TOC Sample Set			Actual % TOC Removed	Step 1 Required % Removal	Step 1 Removal Ratio	Optional data		INDIVIDUAL SAMPLE COMPLIANCE REMOVAL RATIO
		Raw Alkalinity	Raw TOC	Treated TOC				Step 2 Required % Removal	Step 2 Removal Ratio	
		Enter the Sample Set results			calculated	calculated from matrix	calculated			calculated
1	2/12	140	3.11	2.53	18.6	15	1.24			1.24
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	3.11	2.53	18.65		1.24			1.24
Max		140.00	3.11	2.53	18.65		1.24			1.24
Min		140.00	3.11	2.53	18.65		1.24			1.24

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	3.11	2.53	18.6	NA	1.24

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: February 10, 2019

Submit the report by the 10th of the month following the reporting period to:

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
WATER SUPPLY DIVISION/PUBLIC DRINKING WATER SECTION (MC-155)
P.O. BOX 13087, AUSTIN, TEXAS 78711-3087

UV MONTHLY OPERATING REPORT

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

UV Calculated Dose Approach Reactors

PUBLIC WATER SYSTEM NAME: Webb County Water Utilities

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022 **Plant ID No.:** 20831 **Month:** February **Year:** 2019

VALIDATED OPERATIONAL CONDITIONS

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

PERFORMANCE DATA

Date	Reactor	Total Product. (MG)	Max. Flow Rate (MGD)	Min UV Trans. (%)	Minimum Meas'd UV Dose (mJ/cm^2)	Sensor CF	Adjusted Minimum UV Dose (mJ/cm^2)	Total Off-Spec Product. (MG)	Consec. Off-Spec Hours (hr)
	OPERATIONAL DATA								
1	1	X	X	X	X	X	X	X	0.000
	2	0.430	0.836	92.30	40.43	1.00	40.43	0.000	
	3	0.296	0.553	92.30	57.78	1.00	57.78	0.000	
	4								
	5								
2	1	X	X	X	X	X	X	X	0.000
	2	0.402	0.908	93.70	40.59	1.00	40.59	0.000	
	3	0.261	0.601	93.70	56.61	1.00	56.61	0.000	
	4								
	5								
3	1	X	X	X	X	X	X	X	0.000
	2	0.412	0.893	92.60	40.17	1.00	40.17	0.000	
	3	0.268	0.590	92.60	56.96	1.00	56.96	0.000	
	4								
	5								
4	1	X	X	X	X	X	X	X	0.000
	2	0.437	0.931	93.20	36.58	1.00	36.58	0.000	
	3	0.284	0.612	93.20	54.03	1.00	54.03	0.000	
	4								
	5								
5	1	X	X	X	X	X	X	X	0.000
	2	0.439	0.930	94.30	23.63	1.00	23.63	0.000	
	3	0.286	0.605	94.30	57.04	1.00	57.04	0.000	
	4								
	5								
6	1	X	X	X	X	X	X	X	0.000
	2	0.464	0.890	94.60	39.89	1.00	39.89	0.000	
	3	0.302	0.588	94.60	56.11	1.00	56.11	0.000	
	4								
	5								
7	1	X	X	X	X	X	X	X	0.000
	2	0.415	1.035	93.40	27.98	1.00	27.98	0.000	
	3	0.282	0.764	93.40	39.56	1.00	39.56	0.000	
	4								
	5								
8	1	X	X	X	X	X	X	X	0.75
	2	0.197	0.842	92.70	0.00	1.00	0.00	0.011	
	3	0.230	0.637	92.70	47.37	1.00	47.37	0.000	
	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	0.454	0.732	93.10	5.26	1.00	5.26	0.000	0.000
	2	X	X	X	X	X	X	X	
	3	0.434	0.684	93.10	46.49	1.00	46.49	0.000	
	4								
	5								
10	1	0.388	0.760	93.10	33.18	1.00	33.18	0.000	0.000
	2	X	X	X	X	X	X	X	
	3	0.368	0.722	93.10	44.73	1.00	44.73	0.000	
	4								
	5								
11	1	X	X	X	X	X	X	X	0.000
	2	0.482	0.927	92.90	37.32	1.00	37.32	0.000	
	3	0.332	0.616	92.90	53.02	1.00	53.02	0.000	
	4								
	5								
12	1	X	X	X	X	X	X	X	0.000
	2	0.374	1.103	94.20	31.31	1.00	31.31	0.000	
	3	0.267	0.692	94.20	44.78	1.00	44.78	0.000	
	4								
	5								
13	1	X	X	X	X	X	X	X	0.000
	2	0.410	1.036	93.00	9.64	1.00	9.64	0.000	
	3	0.304	0.729	93.00	45.14	1.00	45.14	0.000	
	4								
	5								
14	1	X	X	X	X	X	X	X	0.000
	2	0.403	0.909	92.50	13.69	1.00	13.69	0.000	
	3	0.300	0.602	92.50	56.54	1.00	56.54	0.000	
	4								
	5								
15	1	X	X	X	X	X	X	X	0.000
	2	0.334	0.873	93.00	27.50	1.00	27.50	0.000	
	3	0.293	0.585	93.00	57.11	1.00	57.11	0.000	
	4								
	5								
16	1	X	X	X	X	X	X	X	0.000
	2	0.364	0.854	92.30	36.70	1.00	36.70	0.000	
	3	0.248	0.579	92.30	42.79	1.00	42.79	0.000	
	4								
	5								

SUBMITTED BY: Tomas Sanchez Jr.

Certificate No. and Grade: WS0012772, B **Date:** February 10, 2019

UV MONTHLY OPERATING REPORT

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

UV Calculated Dose Approach Reactors (cont.)

PUBLIC WATER SYSTEM NAME: Webb County Water Utilities

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022 **Plant ID No.:** 20831 **Month:** February **Year:** 2019

TRUE

VALIDATED OPERATIONAL CONDITIONS

VALIDATED PARAMETERS						PERFORMANCE REQUIREMENTS	
Parameters	Reactor Number					Crypto Log Inactivation	Required UV Dose (mJ/cm²)
	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/cm²)	Sensor CF	Adjusted Minimum UV Dose (mJ/cm²)	Total Off-Spec Product. (MG)	Consec. Off-Spec Hours (hr)
17	1	X	X	X	X	X	X	X	0.000
	2	0.391	0.843	87.90	36.28	1.00	36.28	0.000	
	3	0.283	0.565	87.90	53.10	1.00	53.10	0.000	
	4								
	5								
18	1	X	X	X	X	X	X	X	0.000
	2	0.363	1.230	92.80	26.70	1.00	26.70	0.000	
	3	0.284	0.787	92.80	38.16	1.00	38.16	0.000	
	4								
	5								
19	1	X	X	X	X	X	X	X	0.000
	2	0.325	0.954	91.80	29.15	1.00	29.15	0.000	
	3	0.244	0.681	91.80	45.10	1.00	45.10	0.000	
	4								
	5								
20	1	X	X	X	X	X	X	X	0.000
	2	0.361	0.827	90.10	29.78	1.00	29.78	0.000	
	3	0.290	0.632	90.10	42.81	1.00	42.81	0.000	
	4								
	5								
21	1	X	X	X	X	X	X	X	0.000
	2	0.335	0.890	92.50	33.66	1.00	33.66	0.000	
	3	0.268	0.670	92.50	48.61	1.00	48.61	0.000	
	4								
	5								
22	1	X	X	X	X	X	X	X	0.000
	2	0.401	1.223	92.20	24.14	1.00	24.14	0.000	
	3	0.265	0.778	92.20	34.28	1.00	34.28	0.000	
	4								
	5								
23	1	X	X	X	X	X	X	X	0.000
	2	0.443	1.161	88.60	5.98	1.00	5.98	0.000	
	3	0.322	0.799	88.60	41.07	1.00	41.07	0.000	
	4								
	5								
24	1	X	X	X	X	X	X	X	0.000
	2	0.368	1.015	91.90	28.70	1.00	28.70	0.000	
	3	0.274	0.684	91.90	41.47	1.00	41.47	0.000	
	4								
	5								

PERFORMANCE DATA

Date	Reactor	Total Product. (MG)	Max. Flow Rate (MGD)	Min UV Trans. (%)	Minimum Meas'd UV Dose (mJ/cm²)	Sensor CF	Adjusted Minimum UV Dose (mJ/cm²)	Total Off-Spec Product. (MG)	Consec. Off-Spec Hours (hr)
25	1	X	X	X	X	X	X	X	0.000
	2	0.372	0.897	90.80	29.01	1.00	29.01	0.000	
	3	0.281	0.660	90.80	40.86	1.00	40.86	0.000	
	4								
	5								
26	1	X	X	X	X	X	X	X	0.25
	2	0.379	1.005	91.20	0.00	1.00	0.00	0.003	
	3	0.322	0.726	91.20	0.00	1.00	0.00	0.003	
	4								
	5								
27	1	X	X	X	X	X	X	X	0.50
	2	0.427	1.389	91.70	0.00	1.00	0.00	0.100	
	3	0.299	0.896	91.70	0.00	1.00	0.00	0.006	
	4								
	5								
28	1	0.411	1.035	91.30	23.39	1.00	23.39	0.000	0.25
	2	0.002	0.222	91.30	0.00	1.00	0.00	0.002	
	3	0.391	0.974	91.30	0.00	1.00	0.00	0.001	
	4								
	5								
29	1								
	2								
	3								
	4								
	5								
30	1								
	2								
	3								
	4								
	5								
31	1								
	2								
	3								
	4								
	5								

SUBMITTED BY: Tomas Sanchez Jr.

Certificate No. and Grade: WS0012772, B **Date:** February 10, 2019

UV MONTHLY OPERATING REPORT

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

UV Calculated Dose Approach - Daily Minimum Inactivation Summary Page

PUBLIC WATER SYSTEM NAME: Webb County Water Utilities

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022 **Plant ID No.:** 20831 **Month:** February **Year:** 2019

DAILY MINIMUM INACTIVATION

Reactor Range	SUMMARY DATA					Reactor Range	SUMMARY DATA				
	Date	Min Dose (mJ/cm²)	Inactivation Credit Achieved Giardia Log	Virus Log	Crypto Log		Date	Min Dose (mJ/cm²)	Min Inactivation Giardia Log	Virus Log	Crypto Log
1 to 3	1	40.43	4.00	0.54	1.00	1 to 3	9	5.26	2.01	0.00	1.00
	2	40.59	4.00	0.54	1.00		10	33.18	4.00	0.33	1.00
	3	40.17	4.00	0.53	1.00		11	37.32	4.00	0.45	1.00
	4	36.58	4.00	0.43	1.00		12	31.31	4.00	0.27	1.00
	5	23.63	4.00	0.03	1.00		13	9.64	2.79	0.00	1.00
	6	39.89	4.00	0.52	1.00		14	13.69	3.34	0.00	1.00
	7	27.98	4.00	0.17	1.00		15	27.50	4.00	0.16	1.00
	8	0.00*	1.00	0.00	1.00		16	36.70	4.00	0.43	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	36.28	4.00	0.42	1.00	1 to 3	25	29.01	4.00	0.20	1.00
	18	26.70	4.00	0.13	1.00		26	0.00*	1.00	0.00	1.00
	19	29.15	4.00	0.21	1.00		27	0.00*	1.00	0.00	1.00
	20	29.78	4.00	0.23	1.00		28	0.00*	1.00	0.00	1.00
	21	33.66	4.00	0.34	1.00		29				1.00
	22	24.14	4.00	0.05	1.00		30				1.00
	23	5.98	2.16	0.00	1.00		31				1.00
	24	28.70	4.00	0.19	1.00						

Total volume of water treated by all CDA reactors:	19.26	MG
Total volume of off-spec water produced by all CDA reactors:	0.13	MG
Percentage of off-spec water produced by all CDA reactors:	0.65	%
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: (February, 2019) 1, 3, 4, 5, 6, 7, 8, 9, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27.

SUBMITTED BY: Tomas Sanchez Jr

Certificate No. and Grade: WS0012772, B **Date:** February 10, 2019

UV MONTHLY OPERATING REPORT

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

UV Sensor Calibration for Calculated Dose Reactors

PUBLIC WATER SYSTEM NAME: Webb County Water Utilities

PLANT NAME OR NUMBER: Rio Bravo

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

Month: February **Year:** 2019

CALIBRATION DATA

UV Sensor Calibration Report for Calculated Dose Reactors

CDA Reactor Number	Calibration Date and Data	Duty Sensor	Duty Sensor Serial #	Ref Sensor Serial #	Duty Sensor Reading (mJ/cm²)	Ref Sensor Reading (mJ/cm²)	Cal Ratio	Duty Sensor Replaced?	Calculated Sensor CF
UVCD No. 1	Previous Month's Sensor CF	1	92	44	94.00	94.60	0.99	NA	1.00
		2							
		3							
	1.00	4							
	Calibration Date	5							
		6							
	2/1/19	7							
	New Sensor CF	8							
		9							
	1.00	10							
UVCD No. 2	Previous Month's Sensor CF	1	38	44	94.60	93.70	1.01	NA	1.00
		2							
		3							
	1.00	4							
	Calibration Date	5							
		6							
	2/1/19	7							
	New Sensor CF	8							
		9							
	1.00	10							
UVCD No. 3	Previous Month's Sensor CF	1	39	44	94.90	94.30	1.01	NA	1.00
		2							
		3							
	1.00	4							
	Calibration Date	5							
		6							
	2/1/19	7							
	New Sensor CF	8							
		9							
	1.00	10							
UVCD No. 4	Previous Month's Sensor CF	1							
		2							
		3							
		4							
	Calibration Date	5							
		6							
		7							
	New Sensor CF	8							
		9							
		10							
UVCD No. 5	Previous Month's Sensor CF	1							
		2							
		3							
		4							
	Calibration Date	5							
		6							
		7							
	New Sensor CF	8							
		9							
		10							

CALIBRATION DATA

UV Sensor Calibration Report for Calculated Dose Reactors

CDA Reactor Number	Calibration Date	Duty Sensor	Duty Sensor Serial #	Ref Sensor Serial #	Duty Sensor Reading (mJ/cm²)	Ref Sensor Reading (mJ/cm²)	Cal Ratio	Duty Sensor Replaced?	Calculated Sensor CF
UVCD No. 6	Previous Month's Sensor CF	1							
		2							
		3							
		4							
	Calibration Date	5							
		6							
		7							
	New Sensor CF	8							
		9							
		10							
UVCD No. 7	Previous Month's Sensor CF	1							
		2							
		3							
		4							
	Calibration Date	5							
		6							
		7							
	New Sensor CF	8							
		9							
		10							
UVCD No. 8	Previous Month's Sensor CF	1							
		2							
		3							
		4							
	Calibration Date	5							
		6							
		7							
	New Sensor CF	8							
		9							
		10							
UVCD No. 9	Previous Month's Sensor CF	1							
		2							
		3							
		4							
	Calibration Date	5							
		6							
		7							
	New Sensor CF	8							
		9							
		10							
UVCD No. 10	Previous Month's Sensor CF	1							
		2							
		3							
		4							
	Calibration Date	5							
		6							
		7							
	New Sensor CF	8							
		9							
		10							

SUBMITTED BY: Tomas Sanchez Jr.

Certificate No. and Grade: WS0012772, B

Date: February 10, 2019

UV MONTHLY OPERATING REPORT

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

UV Sensor Calibration for Calculated Dose Reactors (cont.)

PUBLIC WATER SYSTEM NAME: Webb County Water Utilities

PLANT NAME OR NUMBER: Rio Bravo

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

Month: February **Year:** 2019

CALIBRATION DATA

UV Sensor Calibration Report for Calculated Dose Reactors

CDA Reactor Number	Calibration Date	Duty Sensor	Duty Sensor Serial #	Ref Sensor Serial #	Duty Sensor Reading (mJ/cm²)	Ref Sensor Reading (mJ/cm²)	Cal Ratio	Duty Sensor Replaced?	Calculated Sensor CF
UVCD No. 11	Previous Month's Sensor CF	1							
		2							
		3							
		4							
	Calibration Date	5							
		6							
		7							
	New Sensor CF	8							
		9							
		10							
UVCD No. 12	Previous Month's Sensor CF	1							
		2							
		3							
		4							
	Calibration Date	5							
		6							
		7							
	New Sensor CF	8							
		9							
		10							
UVCD No. 13	Previous Month's Sensor CF	1							
		2							
		3							
		4							
	Calibration Date	5							
		6							
		7							
	New Sensor CF	8							
		9							
		10							
UVCD No. 14	Previous Month's Sensor CF	1							
		2							
		3							
		4							
	Calibration Date	5							
		6							
		7							
	New Sensor CF	8							
		9							
		10							
UVCD No. 15	Previous Month's Sensor CF	1							
		2							
		3							
		4							
	Calibration Date	5							
		6							
		7							
	New Sensor CF	8							
		9							
		10							

CALIBRATION DATA

UV Sensor Calibration Report for Calculated Dose Reactors

CDA Reactor Number	Calibration Date	Duty Sensor	Duty Sensor Serial #	Ref Sensor Serial #	Duty Sensor Reading (mJ/cm²)	Ref Sensor Reading (mJ/cm²)	Cal Ratio	Duty Sensor Replaced?	Calculated Sensor CF
UVCD No. 16	Previous Month's Sensor CF	1							
		2							
		3							
		4							
	Calibration Date	5							
		6							
		7							
	New Sensor CF	8							
		9							
		10							
UVCD No. 17	Previous Month's Sensor CF	1							
		2							
		3							
		4							
	Calibration Date	5							
		6							
		7							
	New Sensor CF	8							
		9							
		10							
UVCD No. 18	Previous Month's Sensor CF	1							
		2							
		3							
		4							
	Calibration Date	5							
		6							
		7							
	New Sensor CF	8							
		9							
		10							
UVCD No. 19	Previous Month's Sensor CF	1							
		2							
		3							
		4							
	Calibration Date	5							
		6							
		7							
	New Sensor CF	8							
		9							
		10							
UVCD No. 20	Previous Month's Sensor CF	1							
		2							
		3							
		4							
	Calibration Date	5							
		6							
		7							
	New Sensor CF	8							
		9							
		10							

SUBMITTED BY: Tomas Sanchez Jr.

Certificate No. and Grade: WS0012772, B

Date: February 10, 2019

UV MONTHLY OPERATING REPORT

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

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: February

Year: 2019

NA

CALIBRATION DATA

Benchtop UVT Analyzer Serial Number: 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	2/1/19	78713	93.70	93.00	0.70	NA	NA
	2	2/4/19	78713	94.30	93.60	0.70	NA	NA
	3	2/11/19	78713	94.20	93.10	1.10	NA	NA
	4	2/18/19	78713	92.40	92.60	0.20	NA	NA
	5	2/25/19	78713	92.30	92.80	0.50	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: 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: February 10, 2019

SURFACE WATER MONTHLY OPERATING REPORT

FOR PUBLIC WATER SYSTEMS THAT ARE USING SURFACE WATER SOURCES

OR GROUND WATER SOURCES UNDER THE INFLUENCE OF SURFACE WATER (cont.)

LT2ESWTR Summary Page

PUBLIC WATER SYSTEM NAME: Webb County Water Utilities

PLANT NAME OR NUMBER: Rio Bravo

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

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

PLANT NAME OR NUMBER: Rio Bravo

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

	GIARDIA AND CRYPTOSPORIDIUM TREATMENT CREDITS												GIARDIA INACTIVATION CREDITS						VIRAL INACTIVATION CREDITS					
	Total Daily Credit By Train						Total Daily Bin 3 & 4 Credit by Train						Total Daily Inactivation Credit By Train						Total Daily Inactivation Credit by Train					
Overall						Minimum						Minimum						Minimum						Minimum
Train 1	TRUE						TRUE						TRUE						TRUE					
Train 2		FALSE						FALSE						FALSE						FALSE				
Train 3			FALSE						FALSE						FALSE						FALSE			
Train 4				FALSE						FALSE						FALSE						FALSE		
Train 5					FALSE						FALSE						FALSE						FALSE	
1	4.50					4.50	1.00					1.00	7.54					7.54	93.16					93.16
2	4.50					4.50	1.00					1.00	7.54					7.54	96.47					96.47
3	4.50					4.50	1.00					1.00	6.83					6.83	80.14					80.14
4	4.50					4.50	1.00					1.00	5.78					5.78	40.28					40.28
5	4.50					4.50	1.00					1.00	5.90					5.90	42.53					42.53
6	4.50					4.50	1.00					1.00	7.49					7.49	99.29					99.29
7	4.50					4.50	1.00					1.00	7.55					7.55	104.62					104.62
8	4.50					4.50	1.00					1.00	4.22					4.22	102.04					102.04
9	4.50					4.50	1.00					1.00	5.47					5.47	108.30					108.30
10	4.50					4.50	1.00					1.00	6.73					6.73	78.53					78.53
11	4.50					4.50	1.00					1.00	7.03					7.03	91.70					91.70
12	4.50					4.50	1.00					1.00	6.79					6.79	77.63					77.63
13	4.50					4.50	1.00					1.00	5.46					5.46	59.84					59.84
14	4.50					4.50	1.00					1.00	6.53					6.53	70.01					70.01
15	4.50					4.50	1.00					1.00	7.40					7.40	78.38					78.38
16	4.50					4.50	1.00					1.00	3.68					3.68	90.47					90.47
17	4.50					4.50	1.00					1.00	6.73					6.73	53.84					53.84
18	4.50					4.50	1.00					1.00	7.65					7.65	85.76					85.76
19	4.50					4.50	1.00					1.00	7.69					7.69	86.17					86.17
20	4.50					4.50	1.00					1.00	7.94					7.94	98.28					98.28
21	4.50					4.50	1.00					1.00	7.67					7.67	84.92					84.92
22	4.50					4.50	1.00					1.00	6.91					6.91	67.66					67.66
23	4.50					4.50	1.00					1.00	4.57					4.57	50.96					50.96
24	4.50					4.50	1.00					1.00	7.96					7.96	102.14					102.14
25	4.50					4.50	1.00					1.00	7.47					7.47	76.45					76.45
26	4.50					4.50	1.00					1.00	4.29					4.29	78.55					78.55
27	4.50					4.50	1.00					1.00	3.80					3.80	61.58					61.58
28	4.50					4.50	1.00					1.00	3.43					3.43	56.49					56.49
29																								
30																								
31																								
MIN	4.50					4.50	1.00					1.00	3.43					3.43	40.28					40.28
AVG	4.50					4.50	1.00					1.00	6.36					6.36	79.15					79.15
MAX	4.50					4.50	1.00					1.00	7.96					7.96	108.30					108.30