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: May 2018

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: June 10, 2018

TREATMENT PLANT PERFORMANCE

Total number of turbidity readings:	133	Number of 4-hour periods when plant was off-line:	53
Number of readings above 0.10 NTU:	50	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:	6.91
		Average log inactivation) (including UV) for viruses:	111.92
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:	6.69
		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:	43 (at least 31 required) (8)		
Average disinfectant residual value:	2.09	Percentage of readings with a low residual this month:	0.0 % (6A)
Number of readings with a low residual:	0		
Number of readings with no detectable residual:	0	Percentage of readings with a low residual last month:	0.0 % (6B)

ADDITIONAL REPORTS & WORKSHEETS

The Page 1 Addendum (Public Notices) is not required because there were no treatment technique or monitoring/reporting violations reported.

Additional report(s) for individual filter monitoring required: ◉ NONE ○ Filter Profile ○ Filter Assessment ○ CPE

Additional report(s) for individual filter monitoring submitted: ◉ NONE ○ Filter Profile (9) ○ Filter Assessment (10) ○ CPE (11)

No additional IFE Reports are required this month.

P.2-Turbidity Data P.3-Filter Data P.4&5-Disinfection Data P.6-TOCMOR P.7-TOC ACC

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

STATISTICAL ANALYSIS OF TURBIDITY DATA

Settled Water Stastical Summary	Maximum turbidity reading:	4.08 NTU	Average turbidity value:	2.02 NTU
	Minimum turbidity reading:	0.90 NTU	Standard deviation:	0.747 NTU
	95th percentile value:	3.50 NTU		
IFE Stastical Summary	Maximum IFE turbidity reading:	0.00 NTU	Average IFE turbidity value:	0.08 NTU
	Minimum IFEturbidity reading:	0.28 NTU	Standard deviation:	0.127 NTU
	95th percentile IFE value:	0.04 NTU		
CFE Stastical Summary	Maximum CFE turbidity reading:	0.15 NTU	Average CFE turbidity value:	0.10 NTU
	Minimum CFE turbidity reading:	0.07 NTU	Standard deviation:	0.014 NTU
	95th percentile CFE value:	0.13 NTU		

STATISTICAL ANALYSIS OF pH DATA

Last Zone pH Stastical Summary	Maximum pH reading:	7.70 pH	Average pH value:	7.16 pH
	Minimum pH reading:	6.69 pH	Standard deviation:	0.259 pH
	95th percentile value:	7.68 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:** 1,955

Month: May **Year:** 2018 **Population:** 6,843

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	0.954	0.625	27	120	2.2	1.1					X	X	X	0.13	0.12	0.12	3.0	
2	1.040	0.643	8	120	2.1	1.1					X	X	X	0.12	0.12	0.11	2.1	
3	1.053	0.609	13	120	2.5	0.9					0.11	X	X	0.10	0.10	0.10	3.1	
4	1.052	0.560	20	120	2.5	1.4					0.09	X	X	0.09	0.09	0.09	3.4	
5	0.887	0.558	26	100	2.3	1.5					X	X	X	0.09	0.10	0.10	3.1	
6	1.000	0.685	8	120	2.3	2.1					X	X	X	0.10	0.10	0.10	1.6	
7	1.130	0.648	8	100	3.5	1.9					0.10	X	X	0.11	0.10	0.10	2.5	
8	1.019	0.694	7	100	3.0	2.0					X	X	X	0.12	0.15	0.12	2.0	
9	0.949	0.618	8	100	3.3	2.5					0.13	X	X	0.11	X	0.10	3.1	
10	1.094	0.636	16	100	3.2	1.7					0.10	X	X	0.11	0.11	0.12	2.0	
11	0.928	0.641	8	100	2.1	1.3					0.11	X	X	0.10	0.10	0.10	2.7	
12	1.052	0.674	11	100	1.8	1.4					0.10	X	0.12	0.10	0.09	0.09	3.3	
13	1.031	0.659	12	100	4.1	1.9					0.09	X	X	0.10	0.10	0.11	3.3	
14	1.180	0.710	13	100	4.0	1.7					0.14	X	X	0.10	0.10	0.10	3.3	
15	1.044	0.663	14	100	1.3	1.7					0.10	X	X	0.10	0.14	0.11	2.4	
16	1.135	0.708	13	100	3.1	1.6					0.10	X	0.10	0.11	0.11	0.11	2.9	
17	1.048	0.703	19	100	3.5	1.3					0.12	X	0.14	0.10	0.12	0.10	3.1	
18	1.123	0.709	31	120	4.1	1.7					0.10	X	0.10	0.09	0.10	0.10	3.1	
19	1.154	0.756	12	120	2.0	1.5					0.10	X	0.09	0.09	0.10	0.10	3.3	
20	1.111	0.724	8	120	2.2	0.9					0.10	X	0.10	0.07	0.08	0.08	1.5	
21	1.110	0.674	10	120	1.7	1.3					0.10	X	0.10	0.12	0.11	0.11	1.6	
22	1.048	0.675	9	120	1.6	1.2					X	X	0.11	0.10	0.11	0.10	1.5	
23	1.086	0.673	8	100	2.2	1.5					X	X	0.11	0.11	0.12	0.12	1.6	
24	1.062	0.709	23	120	1.8	1.4					0.11	X	X	0.10	0.10	0.10	2.8	
25	1.134	0.702	22	100	2.2	1.8					0.10	0.09	0.09	0.09	0.09	0.09	2.0	
26	1.139	0.736	22	120	1.6	2.0					0.09	0.08	0.07	0.10	0.09	0.08	2.9	
27	1.332	0.756	36	100	2.1	1.7					0.08	X	X	0.08	0.09	0.08	3.1	
28	1.019	0.821	17	100	2.3	2.5					0.09	X	0.10	0.10	0.11	0.12	1.5	
29	1.296	0.755	16	100	2.1	1.4					0.12	0.11	X	0.11	0.10	0.10	3.1	
30	1.114	0.728	18	100	1.8	1.5					0.10	X	0.10	0.10	0.11	0.13	3.3	
31	1.169	0.726	12	100	1.4	2.2					0.15	X	0.13	0.12	0.11	0.11	3.7	
Total	33.493	21.178		Max	4.1	2.5												
Avg	1.080	0.683		Avg	2.5	1.6												
Max	1.332	0.821		95th %	4.0	2.3												
Min	0.887	0.558		Min	1.3	0.9												
				95th percentile based on data from all basins						3.5								

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:** June 10, 2018

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: May Year: 2018

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	0.10		0.28		0.11		0.12													
2	0.14		0.11		0.17		0.11													
3	0.09		0.11		0.12		0.10													
4	0.09		0.11		0.16		0.10													
5	0.10		0.12		0.13		0.09													
6	0.10		0.15		0.12		0.12													
7	0.12		0.17		0.14		0.14													
8	0.10		0.14		0.15		0.13													
9	0.09		0.12		0.12		0.09													
10	0.12		0.12		0.11		0.08													
11	0.10		0.15		0.12		0.09													
12	0.10		0.16		0.21		0.09													
13	0.10		0.14		0.13		0.10													
14	0.09		0.17		0.17		0.12													
15	0.10		0.10		0.12		0.13													
16	0.11		0.12		0.20		0.10													
17	0.10		0.10		0.23		0.11													
18	0.12		0.10		0.16		0.09													
19	0.09		0.10		0.16		0.13													
20	0.08		0.23		0.23		0.13													
21	0.09		0.13		0.23		0.12													
22	0.13		0.17		0.13		0.12													
23	0.11		0.13		0.12		0.11													
24	0.11		0.10		0.21		0.14													
25	0.10		0.09		0.12		0.14													
26	0.10		0.17		0.12		0.16													
27	0.08		0.14		0.13		0.10													
28	0.12		0.18		0.17		0.15													
29	0.10		0.12		0.13		0.12													
30	0.10		0.13		0.13		0.09													
31	0.14		0.14		0.18		0.09													

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: June 10, 2018

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: May Year: 2018

DISINFECTION PROCESS PARAMETERS

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

PERFORMANCE DATA

Date	Disinfectant	C (mg/L)	Flow (MGD)	Temp (°C)	pH	Giardia Log	Virus Log	Inact. Ratio	Time=
1	FCL D1A	1.7	0.824	23.7	7.2				
	FCL D1B	1.7	0.824	22.1	7.2				
	FCL D2	1.5	0.412	23.3	7.1	5.19	127.69	10.38	
	CLA D3	3.4	0.824	22.4	7.2			(G)	
	D4								
2	FCL D1A	1.8	0.849	24.4	7.4				
	FCL D1B	2.0	0.849	24.0	7.4				
	FCL D2	1.7	0.424	23.2	7.4	5.28	144.55	10.57	
	CLA D3	3.4	0.849	24.0	7.3			(G)	
	D4								
3	FCL D1A	2.0	0.789	26.0	7.4				
	FCL D1B	2.1	0.789	26.3	7.3				
	FCL D2	2.1	0.394	25.1	7.2	7.57	205.54	15.13	
	CLA D3	4.0	0.789	25.4	7.2			(G)	
	D4								
4	FCL D1A	0.8	0.794	24.1	7.4				
	FCL D1B	0.7	0.794	24.2	7.3				
	FCL D2	1.0	0.397	23.3	7.4	3.46	77.68	6.92	
	CLA D3	3.5	0.794	22.7	7.7			(G)	
	D4								
5	FCL D1A	0.4	0.802	23.9	7.2				
	FCL D1B	0.4	0.802	23.7	7.3				
	FCL D2	0.6	0.401	23.8	7.3	2.74	51.06	5.48	
	CLA D3	3.6	0.802	23.5	7.3			(G)	
	D4								
6	FCL D1A	0.1	0.800	23.3	7.2				
	FCL D1B	0.1	0.800	23.1	7.3				
	FCL D2	0.5	0.400	22.4	7.3	1.91	31.91	3.81	
	CLA D3	3.3	0.800	22.3	7.3			(G)	
	D4								
7	FCL D1A	0.6	0.817	24.0	7.2				
	FCL D1B	0.5	0.817	24.0	7.2				
	FCL D2	0.5	0.408	24.0	7.1	2.50	43.92	5.01	
	CLA D3	3.2	0.817	24.1	7.1			(G)	
	D4								
8	FCL D1A	0.8	0.815	22.9	7.2				
	FCL D1B	0.7	0.815	22.8	7.4				
	FCL D2	0.6	0.407	22.6	7.3	2.41	50.03	4.82	
	CLA D3	2.7	0.815	22.8	7.3			(G)	
	D4								

PERFORMANCE DATA

Date	Disinfectant	C (mg/L)	Flow (MGD)	Temp (°C)	pH	Giardia Log	Virus Log	Inact. Ratio	Time=
9	FCL D1A	1.3	0.795	24.3	7.2				
	FCL D1B	1.2	0.795	24.0	7.3				
	FCL D2	1.2	0.397	24.1	7.1	4.84	105.66	9.67	
	CLA D3	4.0	0.795	24.5	7.1			(G)	
	D4								
10	FCL D1A	1.9	0.735	26.1	7.2				
	FCL D1B	1.6	0.735	25.2	7.2				
	FCL D2	1.1	0.367	24.7	7.3	5.04	125.35	10.08	
	CLA D3	2.6	0.735	25.1	6.9			(G)	
	D4								
11	FCL D1A	1.8	0.740	23.9	7.0				
	FCL D1B	1.5	0.740	23.2	7.2				
	FCL D2	1.1	0.370	24.0	7.3	4.82	116.86	9.64	
	CLA D3	3.2	0.740	22.7	7.0			(G)	
	D4								
12	FCL D1A	1.8	0.739	26.8	7.1				
	FCL D1B	1.5	0.739	27.2	7.2				
	FCL D2	1.3	0.369	24.6	7.6	5.62	145.28	11.24	
	CLA D3	3.6	0.739	25.7	7.0			(G)	
	D4								
13	FCL D1A	1.3	0.758	27.3	7.3				
	FCL D1B	1.0	0.758	27.3	7.2				
	FCL D2	1.0	0.379	25.7	7.3	5.02	113.59	10.04	
	CLA D3	3.8	0.758	26.9	7.0			(G)	
	D4								
14	FCL D1A	1.2	0.758	26.5	7.3				
	FCL D1B	0.9	0.758	27.0	7.3				
	FCL D2	0.8	0.379	25.6	7.3	4.46	92.49	8.93	
	CLA D3	4.0	0.758	26.0	7.1			(G)	
	D4								
15	FCL D1A	0.4	0.790	24.9	7.6				
	FCL D1B	0.3	0.790	25.2	7.6				
	FCL D2	0.3	0.395	25.5	7.5	1.95	32.76	3.90	
	CLA D3	2.9	0.790	25.9	7.7			(G)	
	D4								
16	FCL D1A	1.0	0.782	25.3	7.4				
	FCL D1B	0.6	0.782	26.0	7.3				
	FCL D2	1.1	0.391	25.7	7.5	4.14	102.11	8.28	
	CLA D3	3.0	0.782	26.3	7.5			(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: June 10, 2018

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:** May **Year:** 2018

DISINFECTION PROCESS PARAMETERS

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

PERFORMANCE DATA

DISINFECTION PROCESS DATA

Date	Disinfectant	C (mg/L)	Flow (MGD)	Temp (°C)	pH	Giardia Log	Virus Log	Inact. Ratio	Time=
17	FCL D1A	0.6	0.730	27.0	7.2				
	FCL D1B	0.8	0.730	27.0	7.4				
	FCL D2	0.4	0.365	27.0	7.2	3.11	55.49	6.23	
	CLA D3	3.3	0.730	27.0	7.2			(G)	
	D4								
18	FCL D1A	0.8	0.725	26.0	7.2				
	FCL D1B	0.9	0.725	24.0	7.2				
	FCL D2	0.5	0.362	26.0	7.2	3.55	66.98	7.09	
	CLA D3	3.4	0.725	26.0	7.2			(G)	
	D4								
19	FCL D1A	1.0	0.725	26.0	7.2				
	FCL D1B	0.8	0.725	26.0	7.3				
	FCL D2	1.1	0.362	26.0	7.1	5.48	118.35	10.96	
	CLA D3	3.8	0.725	26.0	7.0			(G)	
	D4								
20	FCL D1A	1.0	0.713	27.1	7.3				
	FCL D1B	1.1	0.713	26.9	7.5				
	FCL D2	1.6	0.356	26.8	7.3	6.86	172.45	13.72	
	CLA D3	3.6	0.713	26.6	7.2			(G)	
	D4								
21	FCL D1A	1.9	0.740	24.9	7.5				
	FCL D1B	1.7	0.740	25.3	7.4				
	FCL D2	1.2	0.370	25.1	7.2	5.61	137.69	11.21	
	CLA D3	3.4	0.740	25.8	7.2			(G)	
	D4								
22	FCL D1A	1.3	0.759	26.0	7.3				
	FCL D1B	1.1	0.759	26.0	7.2				
	FCL D2	0.8	0.379	29.0	7.2	5.01	113.02	10.01	
	CLA D3	3.1	0.759	26.0	7.0			(G)	
	D4								
23	FCL D1A	1.6	0.756	26.5	7.3				
	FCL D1B	1.1	0.756	27.9	7.1				
	FCL D2	1.1	0.378	26.0	7.1	5.54	121.91	11.08	
	CLA D3	3.5	0.756	28.0	7.0			(G)	
	D4								
24	FCL D1A	1.0	0.735	27.0	7.1				
	FCL D1B	1.0	0.735	27.0	7.2				
	FCL D2	0.8	0.367	26.5	7.2	4.83	103.70	9.67	
	CLA D3	3.4	0.735	25.8	7.7			(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	1.0	0.749	25.6	6.9				
	FCL D1B	1.0	0.749	25.9	6.9				
	FCL D2	0.8	0.374	25.8	7.2	4.31	89.98	8.62	
	CLA D3	3.3	0.749	24.4	7.7			(G)	
	D4								
26	FCL D1A	1.0	0.740	25.6	6.8				
	FCL D1B	1.5	0.740	25.8	6.8				
	FCL D2	0.3	0.370	25.3	6.9	3.13	52.60	6.27	
	CLA D3	3.1	0.740	26.7	7.0			(G)	
	D4								
27	FCL D1A	0.4	0.728	25.8	7.1				
	FCL D1B	0.6	0.728	26.8	6.8				
	FCL D2	0.7	0.364	26.6	6.9	4.03	74.83	8.05	
	CLA D3	3.4	0.728	24.4	6.9			(G)	
	D4								
28	FCL D1A	0.2	0.739	25.5	6.9				
	FCL D1B	0.1	0.739	26.2	6.8				
	FCL D2	0.5	0.369	26.3	6.8	2.93	44.07	5.87	
	CLA D3	3.4	0.739	27.9	6.8			(G)	
	D4								
29	FCL D1A	1.6	0.703	26.5	7.1				
	FCL D1B	1.6	0.703	27.0	6.9				
	FCL D2	2.6	0.351	25.4	7.2	9.37	262.85	18.74	
	CLA D3	3.4	0.703	27.1	7.1			(G)	
	D4								
30	FCL D1A	1.9	0.689	27.2	7.1				
	FCL D1B	2.1	0.689	27.9	7.1				
	FCL D2	2.0	0.344	27.1	7.2	9.44	251.57	18.88	
	CLA D3	3.5	0.689	28.7	6.9			(G)	
	D4								
31	FCL D1A	1.5	0.671	28.3	7.3				
	FCL D1B	1.5	0.671	28.7	7.2				
	FCL D2	1.8	0.335	27.4	7.0	9.54	234.62	19.08	
	CLA D3	4.3	0.671	27.0	6.7			(G)	
	D4								
					Max	9.54	262.85	19.08	
					Min	1.91	31.91	3.81	
					Avg	4.83	111.83	9.66	
					SD	2.01	60.90	4.02	

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:** June 10, 2018

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: May

Year: 2018

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	5/15	120	3.72	2.87	22.8	25	0.91			0.91
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										
31										
Avg		120.00	3.72	2.87	22.85		0.91			0.91
Max		120.00	3.72	2.87	22.85		0.91			0.91
Min		120.00	3.72	2.87	22.85		0.91			0.91

TOTAL ORGANIC CARBON (TOC) REMOVAL SUMMARY

TOC Summary					Monthly Compliance Ratio
Raw Water Alkalinity	Raw Water TOC	Treated Water TOC	TOC % Removal	ACC # used	
120	3.72	2.87	22.8	NA	0.91

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: June 10, 2018

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:** May **Year:** 2018

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	X	X	X	X	X	X	X	0.25
	2	0.533	1.306	86.60	0.00	1.00	0.00	0.003	
	3	0.343	0.826	86.60	0.00	1.00	0.00	0.001	
	4								
	5								
2	1	0.446	0.768	88.70	37.35	1.00	37.35	0.000	0.000
	2	X	X	X	X	X	X	X	
	3	0.424	0.745	88.70	47.36	1.00	47.36	0.000	
	4								
	5								
3	1	X	X	X	X	X	X	X	0.50
	2	0.505	0.959	100.00	33.83	1.00	33.83	0.000	
	3	0.363	0.732	100.00	0.00	1.00	0.00	0.001	
	4								
	5								
4	1	X	X	X	X	X	X	X	1.00
	2	0.556	0.942	100.00	0.00	1.00	0.00	0.007	
	3	0.358	0.614	100.00	0.00	1.00	0.00	0.002	
	4								
	5								
5	1	X	X	X	X	X	X	X	0.50
	2	0.448	0.957	86.70	0.00	1.00	0.00	0.002	
	3	0.288	0.626	86.70	55.52	1.00	55.52	0.000	
	4								
	5								
6	1	X	X	X	X	X	X	X	0.000
	2	0.542	0.993	87.10	32.57	1.00	32.57	0.000	
	3	0.351	0.651	87.10	51.51	1.00	51.51	0.000	
	4								
	5								
7	1	X	X	X	X	X	X	X	0.75
	2	0.608	1.052	92.40	0.00	1.00	0.00	0.010	
	3	0.391	0.686	92.40	0.00	1.00	0.00	0.004	
	4								
	5								
8	1	0.371	0.678	94.40	6.08	1.00	6.08	0.000	0.75
	2	0.512	0.926	94.40	0.00	1.00	0.00	0.004	
	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	0.204	0.649	95.10	43.60	1.00	43.60	0.000	0.25
	2	0.486	0.919	95.10	0.00	1.00	0.00	0.003	
	3	0.140	0.592	95.10	0.00	1.00	0.00	0.002	
	4								
	5								
10	1	0.343	0.718	93.50	3.20	1.00	3.20	0.000	0.000
	2	0.526	0.946	93.50	30.92	1.00	30.92	0.000	
	3	0.037	0.586	93.50	52.43	1.00	52.43	0.000	
	4								
	5								
11	1	0.335	0.568	86.50	37.45	1.00	37.45	0.000	0.000
	2	0.475	0.791	86.50	38.50	1.00	38.50	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
12	1	0.377	0.581	85.30	46.05	1.00	46.05	0.000	0.000
	2	0.533	0.844	85.30	36.85	1.00	36.85	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
13	1	0.343	0.588	84.10	45.44	1.00	45.44	0.000	0.000
	2	0.486	0.825	84.10	34.70	1.00	34.70	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
14	1	0.417	0.658	94.00	3.54	1.00	3.54	0.000	0.000
	2	0.594	0.942	94.00	28.80	1.00	28.80	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
15	1	0.371	0.644	93.30	2.79	1.00	2.79	0.000	0.000
	2	0.525	0.879	93.30	31.25	1.00	31.25	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
16	1	0.421	0.637	93.50	0.00	1.00	0.00	0.005	0.25
	2	0.600	0.879	93.50	0.00	1.00	0.00	0.009	
	3	X	X	X	X	X	X	X	
	4								
	5								

SUBMITTED BY: Tomas Sanchez Jr.

Certificate No. and Grade: WS0012772, B **Date:** June 10, 2018

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: May Year: 2018

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	0.014	0.613	93.10	0.00	1.00	0.00	0.001	0.50
	2	0.560	0.894	93.10	0.00	1.00	0.00	0.003	
	3	0.349	0.588	93.10	45.37	1.00	45.37	0.000	
	4								
	5								
18	1	0.378	0.595	93.60	0.00	1.00	0.00	0.003	0.50
	2	0.582	0.872	93.60	0.00	1.00	0.00	0.007	
	3	0.030	0.537	93.60	0.00	1.00	0.00	0.001	
	4								
	5								
19	1	0.040	0.582	94.20	47.49	1.00	47.49	0.000	0.25
	2	0.626	0.858	94.20	0.00	1.00	0.00	0.001	
	3	0.366	0.560	94.20	52.17	1.00	52.17	0.000	
	4								
	5								
20	1	0.450	0.689	93.40	36.99	1.00	36.99	0.000	0.50
	2	0.022	0.854	93.40	0.00	1.00	0.00	0.012	
	3	0.452	0.656	93.40	0.00	1.00	0.00	0.001	
	4								
	5								
21	1	0.018	0.668	92.70	39.74	1.00	39.74	0.000	0.25
	2	0.556	1.049	92.70	0.00	1.00	0.00	0.008	
	3	0.378	0.687	92.70	0.00	1.00	0.00	0.005	
	4								
	5								
22	1	X	X	X	X	X	X	X	0.50
	2	0.586	1.162	92.80	0.00	1.00	0.00	0.003	
	3	0.380	0.737	92.80	0.00	1.00	0.00	0.001	
	4								
	5								
23	1	0.402	0.620	93.00	26.53	1.00	26.53	0.000	0.000
	2	0.571	0.859	93.00	29.72	1.00	29.72	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
24	1	0.383	0.612	92.10	42.55	1.00	42.55	0.000	0.000
	2	0.539	0.841	92.10	31.28	1.00	31.28	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	0.397	0.623	92.30	13.80	1.00	13.80	0.000	0.000
	2	0.551	0.835	92.30	31.30	1.00	31.30	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
26	1	0.412	0.604	93.10	39.79	1.00	39.79	0.000	0.000
	2	0.560	0.812	93.10	29.34	1.00	29.34	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
27	1	0.423	0.626	93.50	39.78	1.00	39.78	0.000	0.000
	2	0.564	0.860	93.50	28.94	1.00	28.94	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
28	1	0.427	0.597	92.50	38.86	1.00	38.86	0.000	0.000
	2	0.584	0.825	92.50	13.73	1.00	13.73	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
29	1	0.486	0.800	91.60	2.80	1.00	2.80	0.000	0.000
	2	0.678	1.131	91.60	4.16	1.00	4.16	0.000	
	3	X	X	X	X	X	X	X	
	4								
	5								
30	1	0.404	0.561	92.70	11.03	1.00	11.03	0.000	0.25
	2	0.566	0.779	92.70	0.00	1.00	0.00	0.007	
	3	X	X	X	X	X	X	X	
	4								
	5								
31	1	0.340	0.504	92.50	0.00	1.00	0.00	0.001	0.50
	2	0.576	0.815	92.50	0.00	1.00	0.00	0.003	
	3	0.315	0.527	92.50	50.78	1.00	50.78	0.000	
	4								
	5								

SUBMITTED BY: Tomas Sanchez Jr.

Certificate No. and Grade: WS0012772, B Date: June 10, 2018

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:** May **Year:** 2018

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	0.00*	1.00	0.00	1.00	1 to 3	9	0.00*	1.00	0.00	1.00
	2	37.35	4.00	0.45	1.00		10	3.20	1.58	0.00	1.00
	3	0.00*	1.00	0.00	1.00		11	37.45	4.00	0.46	1.00
	4	0.00*	1.00	0.00	1.00		12	36.85	4.00	0.44	1.00
	5	0.00*	1.00	0.00	1.00		13	34.70	4.00	0.38	1.00
	6	32.57	4.00	0.31	1.00		14	3.54	1.69	0.00	1.00
	7	0.00*	1.00	0.00	1.00		15	2.79	1.41	0.00	1.00
	8	0.00*	1.00	0.00	1.00		16	0.00*	1.00	0.00	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	13.80	3.35	0.00	1.00
	18	0.00*	1.00	0.00	1.00		26	29.34	4.00	0.21	1.00
	19	0.00*	1.00	0.00	1.00		27	28.94	4.00	0.20	1.00
	20	0.00*	1.00	0.00	1.00		28	13.73	3.34	0.00	1.00
	21	0.00*	1.00	0.00	1.00		29	2.80	1.41	0.00	1.00
	22	0.00*	1.00	0.00	1.00		30	0.00*	1.00	0.00	1.00
	23	26.53	4.00	0.13	1.00		31	0.00*	1.00	0.00	1.00
	24	31.28	4.00	0.27	1.00						

Total volume of water treated by all CDA reactors:	29.22	MG
Total volume of off-spec water produced by all CDA reactors:	0.11	MG
Percentage of off-spec water produced by all CDA reactors:	0.38	%
Crypto Log-Inactivation Credit for treatment by CDA reactors:	1.00	log

Treated water pumpage and total production by all UV reactors differ by more than 15% on these days: 2, 3, 5, 10, 13, 20, 25, 27,

SUBMITTED BY: Tomas Sanchez Jr

Certificate No. and Grade: WS0012772, B **Date:** June 10, 2018

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: May **Year:** 2018

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	38	75.80	77.50	0.98	NA	1.00
		2							
		3							
	1.00	4							
	Calibration Date	5							
		6							
	5/1/18	7							
	New Sensor CF	8							
		9							
	1.00	10							
UVCD No. 2	Previous Month's Sensor CF	1	44	38	67.20	69.10	0.97	NA	1.00
		2							
		3							
	1.00	4							
	Calibration Date	5							
		6							
	5/1/18	7							
	New Sensor CF	8							
		9							
	1.00	10							
UVCD No. 3	Previous Month's Sensor CF	1	39	38	74.20	73.40	1.01	NA	1.00
		2							
		3							
	1.00	4							
	Calibration Date	5							
		6							
	5/1/18	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: June 10, 2018

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: May **Year:** 2018

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: June 10, 2018

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: May

Year: 2018

CALIBRATION DATA

Benchtop UVT Analyzer Serial Number: P0105955

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	5/1/18	78713	100.00	92.30	7.70	YES	NA
	2	5/7/18	78713	94.90	92.90	2.00	NA	NA
	3	5/14/18	78713	95.30	92.40	2.90	YES	NA
	4	5/21/18	78713	93.30	92.50	0.80	NA	NA
	5	5/28/18	78713	92.40	90.40	2.00	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: P0105955

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: June 10, 2018

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: May Year: 2018

Note: Indicate the treatment processes in each train. (see comment)	TREATMENT TECHNOLOGIES																
	PRETREATMENT CREDITS				FILTRATION TECHNOLOGY CREDITS						ENHANCED PERFORMANCE CREDITS		DISINFECTION TECHNOLOGY CREDITS			OTHER TREATMENT CREDITS	
	Riverbank Filtration	Presed. with Coagul.	Two-stage Lime Softening	Conventional Sedimentation or Clarification	Conventional Granular Media Filters	Bag or Cartridge Filtration	Two-Stage Filtration	Membrane Filtration (PBT)	Membrane Filtration (QBT)	Membrane Filtration (MBT)	Enhanced CFE Perform.	Optimized IFE Perform.	Crypto Chemical Disinfect.	UV Disinfect. (ISA)	UV Disinfect. (CDA)	Watershed Protection	Perform. Demon.
Overall	FALSE	FALSE	FALSE	TRUE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	TRUE	FALSE	FALSE	FALSE	TRUE	FALSE	FALSE
Train 1				TRUE	TRUE						TRUE	FALSE			TRUE		
Train 2																	
Train 3																	
Train 4																	
Train 5																	
1					2.50										1.00		
2					2.50										1.00		
3					2.50										1.00		
4					2.50										1.00		
5					2.50										1.00		
6					2.50										1.00		
7					2.50										1.00		
8					2.50										1.00		
9					2.50										1.00		
10					2.50										1.00		
11					2.50										1.00		
12					2.50										1.00		
13					2.50										1.00		
14					2.50										1.00		
15					2.50										1.00		
16				0.50	2.50						0.50				1.00		
17					2.50										1.00		
18					2.50										1.00		
19					2.50										1.00		
20					2.50										1.00		
21					2.50										1.00		
22					2.50										1.00		
23					2.50										1.00		
24					2.50										1.00		
25					2.50										1.00		
26					2.50										1.00		
27					2.50										1.00		
28					2.50										1.00		
29					2.50										1.00		
30					2.50										1.00		
31					2.50										1.00		
MIN				0.5	2.5						0.5				1.00		

SURFACE WATER MONTHLY OPERATING REPORT

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

LT2ESWTR Summary Page (cont)

PUBLIC WATER SYSTEM NAME: Webb County Water Utility

PLANT NAME OR NUMBER: Rio Bravo

PWS ID No.: 2400022 Plant ID No.: 20831 Month: May Year: 2018

	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	6.19					6.19	127.69					127.69
2	4.50					4.50	1.00					1.00	9.19					9.19	145.00					145.00
3	4.50					4.50	1.00					1.00	8.57					8.57	205.54					205.54
4	4.50					4.50	1.00					1.00	4.46					4.46	77.68					77.68
5	4.50					4.50	1.00					1.00	3.74					3.74	51.06					51.06
6	4.50					4.50	1.00					1.00	5.91					5.91	32.22					32.22
7	4.50					4.50	1.00					1.00	3.50					3.50	43.92					43.92
8	4.50					4.50	1.00					1.00	3.41					3.41	50.03					50.03
9	4.50					4.50	1.00					1.00	5.84					5.84	105.66					105.66
10	4.50					4.50	1.00					1.00	6.62					6.62	125.35					125.35
11	4.50					4.50	1.00					1.00	8.82					8.82	117.31					117.31
12	4.50					4.50	1.00					1.00	9.62					9.62	145.71					145.71
13	4.50					4.50	1.00					1.00	9.02					9.02	113.96					113.96
14	4.50					4.50	1.00					1.00	6.15					6.15	92.49					92.49
15	4.50					4.50	1.00					1.00	3.35					3.35	32.76					32.76
16	4.50					4.50	1.00					1.00	4.14					4.14	102.11					102.11
17	4.50					4.50	1.00					1.00	4.11					4.11	55.49					55.49
18	4.50					4.50	1.00					1.00	4.55					4.55	66.98					66.98
19	4.50					4.50	1.00					1.00	6.48					6.48	118.35					118.35
20	4.50					4.50	1.00					1.00	7.86					7.86	172.45					172.45
21	4.50					4.50	1.00					1.00	6.61					6.61	137.69					137.69
22	4.50					4.50	1.00					1.00	6.01					6.01	113.02					113.02
23	4.50					4.50	1.00					1.00	9.54					9.54	122.04					122.04
24	4.50					4.50	1.00					1.00	8.83					8.83	103.97					103.97
25	4.50					4.50	1.00					1.00	7.66					7.66	89.98					89.98
26	4.50					4.50	1.00					1.00	7.13					7.13	52.82					52.82
27	4.50					4.50	1.00					1.00	8.03					8.03	75.04					75.04
28	4.50					4.50	1.00					1.00	6.28					6.28	44.07					44.07
29	4.50					4.50	1.00					1.00	10.78					10.78	262.85					262.85
30	4.50					4.50	1.00					1.00	10.44					10.44	251.57					251.57
31	4.50					4.50	1.00					1.00	10.54					10.54	234.62					234.62
MIN	4.50					4.50	1.00					1.00	3.35					3.35	32.22					32.22
AVG	4.50					4.50	1.00					1.00	6.88					6.88	111.92					111.92
MAX	4.50					4.50	1.00					1.00	10.78					10.78	262.85					262.85