

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: City of Wichita Falls

PLANT NAME

OR NUMBER:

Cypress DPR (Microfiltration/RO)

PWS ID No.: 2430001

Plant ID No.: 21567

Operator's Signature:

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.

Report for
the Month of: September 2014

Certificate No. & Grade: W00023530, A Surface

Date: October 10, 2014

TREATMENT PLANT PERFORMANCE

Total number of turbidity readings:	180	Number of 4-hour periods when plant was off-line:	0
Number of readings above 0.10 NTU:	36	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 days when plant was on-line but individual filter turbidity data was not collected:	0
Number of readings above 0.5 NTU:	0	Number of days with readings above 1.0 NTU:	0 (2)
Number of readings above 1.0 NTU:	0	Number of days with readings above 5.0 NTU:	0 (3)
Maximum allowable turbidity level:	0.3		
Percentage of readings above this limit:	0.0 % (1)		

Statistical
Summary

Maximum turbidity reading:	0.16 NTU	Average turbidity value:	0.09 NTU
Minimum turbidity reading:	0.04 NTU	Standard deviation:	0.023 NTU
CFE 95 th percentile value:	0.13 NTU	IFE 95 th percentile:	0.280 NTU

Bin Class:	4	Crypto Credit Required:	5.5 (7A)	Crypto Credit Achieved:	7.3 (7B)	Bin 3&4 Credits:	2.8 (7C)
Watershed Protection:	0.0	Conventional Treatment:	3.0	Second Stage Filtration:	0.0		
Bank Filtration:	0.0	Enhanced Filter Performance:	1.0	UV:	0.0		
Presedimentation with Coagulation:	0.0	Bag and Cartridge Filtration:	0.0	Ozone, Chlorine Dioxide:	0.0		
Two-Stage Lime Softening:	0.0	Membrane Filtration:	2.8	Perform. Demonstration:	0.5		

Number of days with a low CT for no more than 4.0 consecutive hours:	0	Average log inactivation for Giardia:	8.30
Number of days with a low CT for more than 4.0 consecutive hours:	0 (4)	Average log inactivation for viruses:	17.81
		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	Number of days when disinfectant residual leaving the plant was not properly monitored:	0
Number of days with a low residual for more than 4.0 consecutive hours:	0 (5)		

DISTRIBUTION SYSTEM

Minimum disinfectant residual required in distribution system:	0.5 mg/L, measured as Total Chlorine
Total number of readings this month:	164 (at least 100 required) (8)
Average disinfectant residual value:	3.04
Number of readings with a low residual:	0
Number of readings with no detectable residual:	0
Percentage of readings with a low residual this month:	0.0 % (8A)
Percentage of readings with a low residual last month:	0.0 % (8B)

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.

Enhanced IFE Worksheet

Membranes-PBT

Performance
Demonstration

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

This edition of the SWMOR-Alt was customized by the TCEQ on 05/18/14 for use during the City of Wichita Falls Temporary Direct Potable Reuse Project.

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: City of Wichita Falls PLANT NAME OR NUMBER: Cypress DPR (Microfiltration/RO)

PWS ID No.: 2430001 Plant ID No.: 21567 Connections: 33,112

Month: September Year: 2014 Population: _____

PERFORMANCE DATA																		
Date	Raw Water Pumpage (MGD)	Treated Water Pumpage (MGD)	RAW WATER ANALYSES		SETTLED WATER TURBIDITY (Optional Data)						FINISHED WATER QUALITY							
			NTU	Alk.	Basin No.						Combined Filter Effluent Turbidity						Lowest Residual	Time in Min
					1	2	3	4	5	6	NTU1	NTU2	NTU3	NTU4	NTU5	NTU6		
1	5.000	10.947	3	33	1.5	1.8					0.08	0.07	0.07	0.07	0.08	0.09	3.4	
2	5.000	10.780	3	37	1.2	1.2					0.09	0.08	0.07	0.08	0.08	0.09	3.3	
3	5.000	7.649	2	49	1.6	1.4					0.09	0.09	0.07	0.07	0.07	0.08	3.3	
4	5.000	10.082	2	53	1.4	1.0					0.07	0.08	0.07	0.07	0.07	0.08	3.3	
5	5.000	9.800	2	55	1.0	1.1					0.09	0.10	0.11	0.09	0.11	0.11	3.1	
6	5.000	9.320	2	52	1.1	1.2					0.12	0.07	0.08	0.08	0.07	0.08	3.0	
7	5.000	9.573	2	47	1.0	1.6					0.09	0.09	0.09	0.11	0.10	0.09	3.4	
8	5.000	9.923	2	49	1.0	1.3					0.09	0.08	0.08	0.08	0.09	0.11	3.7	
9	5.000	8.990	2	44	1.4	1.8					0.11	0.11	0.10	0.09	0.08	0.09	3.3	
10	5.000	10.897	2	46	1.7	1.8					0.08	0.08	0.11	0.14	0.12	0.13	3.3	
11	5.000	11.753	2	50	1.1	1.4					0.12	0.09	0.13	0.16	0.11	0.15	3.3	
12	5.000	10.364	2	30	1.3	1.9					0.06	0.13	0.05	0.09	0.12	0.12	3.5	
13	5.000	11.030	3	37	1.3	1.5					0.11	0.12	0.10	0.10	0.11	0.12	3.7	
14	5.000	9.001	2	39	1.2	1.9					0.14	0.10	0.15	0.15	0.14	0.14	3.6	
15	5.000	9.708	3	33	1.4	2.2					0.13	0.13	0.11	0.10	0.10	0.11	3.3	
16	5.000	8.628	3	44	1.5	3.3					0.11	0.10	0.09	0.08	0.07	0.08	3.1	
17	5.000	9.518	2	54	1.5	1.2					0.10	0.11	0.11	0.08	0.09	0.10	3.1	
18	5.000	10.947	2	61	1.6	1.2					0.09	0.09	0.09	0.10	0.09	0.10	3.4	
19	5.000	10.130	2	45	1.1	0.9					0.10	0.09	0.09	0.07	0.08	0.07	3.6	
20	5.000	11.333	2	72	1.5	1.2					0.08	0.08	0.08	0.07	0.07	0.07	3.6	
21	5.000	10.240	2	46	1.2	1.3					0.08	0.07	0.07	0.06	0.06	0.07	2.7	
22	5.000	9.400	2	45	1.2	1.8					0.07	0.08	0.08	0.06	0.06	0.06	3.0	
23	5.000	10.647	2	49	2.1	1.7					0.10	0.10	0.06	0.06	0.07	0.07	2.5	
24	5.000	9.988	3	47	1.4	2.2					0.07	0.07	0.06	0.06	0.06	0.06	2.5	
25	5.000	8.103	3	50	1.8	1.6					0.08	0.06	0.06	0.05	0.05	0.05	2.7	
26	5.000	11.331	3	37	1.1	1.9					0.06	0.05	0.06	0.06	0.06	0.07	2.9	
27	5.000	9.742	3	48	1.4	1.6					0.10	0.08	0.07	0.06	0.07	0.08	2.9	
28	5.000	11.472	3	40	1.7	2.3					0.09	0.09	0.07	0.06	0.06	0.06	3.1	
29	5.000	9.154	2	43	2.1	1.2					0.06	0.06	0.06	0.06	0.07	0.06	3.2	
30	5.000	10.046	3	43	1.2	1.3					0.06	0.09	0.07	0.04	0.06	0.08	3.1	
31																		
Total	150.000	300.494	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.															
Avg	5.000	10.016																
Max	5.000	11.753																
Min	5.000	7.649																

NOTE: ONLY use the "Time^{min}" column to show the length of time that the disinfectant residual entering the distribution system fell below the acceptable level.

SUBMITTED BY:  Certificate No. and Grade: WO0023530, A Surface Date: October 10, 2014

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: City of Wichita Falls

PLANT NAME

OR NUMBER: Cypress DPR (Microfiltration/RO)

PWS ID No.: 2430001

Plant ID No.: 21567

Month:

September

Year: 2014

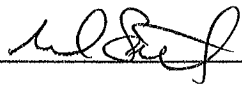
PERFORMANCE DATA

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	0.08	X	0.12	0.10	0.08	X	0.28	0.10	0.08	X										
2	0.27	0.09	0.10	X	0.25	0.09	0.09	X	0.13	0.09										
3	0.08	X	0.07	X	0.09	X	0.08	X	0.09	X										
4	0.08	X	0.09	X	0.09	X	0.14	0.13	0.09	X										
5	0.28	0.10	0.14	0.13	0.16	0.12	0.14	X	0.14	0.10										
6	0.11	X	0.11	X	0.12	X	0.14	0.12	0.11	X										
7	0.23	0.12	0.17	0.12	0.25	0.11	0.13	X	0.28	0.11										
8	0.28	0.12	0.26	0.13	0.29	0.14	0.26	0.15	0.22	0.15										
9	0.11	X	0.12	X	0.12	X	0.13	X	0.12	X										
10	0.19	0.09	0.15	0.12	0.27	0.12	0.24	0.12	0.24	0.12										
11	0.26	0.13	0.28	0.14	0.26	0.18	0.28	0.10	0.23	0.11										
12	0.13	X	0.19	0.12	0.13	X	0.13	X	0.11	X										
13	0.27	0.15	0.13	X	0.18	0.14	0.28	0.17	0.28	0.15										
14	0.24	0.13	0.30	0.14	0.28	0.18	0.12	0.12	0.23	0.16										
15	0.12	X	0.12	X	0.15	X	0.29	X	0.16	X										
16	0.12	0.04	0.19	0.13	0.11	X	0.12	X	0.10	X										
17	0.09	x	0.10	x	0.23	0.14	0.18	0.11	0.15	0.11										
18	0.11	0.10	0.15	0.10	0.16	0.14	0.10	x	0.11	x										
19	0.09	x	0.10	x	0.11	x	0.14	0.11	0.11	x										
20	0.08	x	0.08	x	0.09	x	0.10	x	0.07	x										
21	0.08	x	0.08	x	0.09	x	0.10	x	0.08	x										
22	0.26	0.12	0.13	x	0.23	0.13	0.19	x	0.21	0.10										
23	0.19	x	0.25	x	0.30	0.07	0.20	0.10	0.28	x										
24	0.07	x	0.08	x	0.09	x	0.10	x	0.07	x										
25	0.06	x	0.07	x	0.08	x	0.08	x	0.06	x										
26	0.27	0.10	0.22	0.06	0.17	0.13	0.08	x	0.16	0.10										
27	0.09	x	0.10	x	0.14	x	0.28	0.11	0.10	x										
28	0.07	x	0.07	x	0.08	x	0.10	x	0.07	x										
29	0.06	x	0.07	x	0.07	x	0.08	x	0.06	x										
30	0.10	0.09	0.24	0.10	0.10	x	0.07	x	0.05	x										
31																				

SUMMARY & COMPLIANCE ACTIONS	Criteria	Filter No.										Plant
		1	2	3	4	5	6	7	8	9	10	
	Number of days with event(s) above 0.5 NTU at 4.0 hrs this month	0	0	0	0	0						
	Number of days with event(s) above 1.0 NTU this month	0	0	0	0	0						
	Number of days with event(s) above 1.0 NTU last month	0	0	0	0	0						
	Number of days with event(s) above 1.0 NTU two months ago	0	0	0	0	0						
	Total number of days with event(s) above 1.0 NTU in three months	0	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						N
	Is the plant required to submit a Filter Profile Report?	N	N	N	N	N						
	Is the plant required to submit a Filter Assessment Report?	N	N	N	N	N						
	Is the plant required to submit a Request for Compliance CPE?											

SUBMITTED BY:



Certificate No.

and Grade: WO0023530, A Surface

Date: October 10, 2014

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: City of Wichita Falls

PLANT NAME

OR NUMBER: Cypress DPR (Microfiltration/RO)

PWS ID No.: 2430001

Plant ID No.: 21567

Month:

September

Year: 2014

DISINFECTION PROCESS PARAMETERS

APPROVED CT STUDY PARAMETERS						PERFORMANCE STANDARDS	
Parameters	Disinfection Zones					Log Inactivations	
	D1	D2	D3	D4	D5	Giardia lamblia Cysts	Viruses
Flow Rate (MGD)	7.500	7.500	3.308	10.000	10.000	2.0	5.0
T ₁₀ (minutes)	357.0	223.2	5.6	67.1	223.3		

PERFORMANCE DATA

DISINFECTION PROCESS DATA									
Date	Disinfectant	C (mg/L)	Flow (MGD)	Temp (°C)	pH	Giardia Log	Virus Log	Inact. Ratio	Time ₁₀
1	CLA D1	1.9	7.200	30.3	6.5				
	CLA D2	1.2	7.200	28.7	6.1				
	CLA D3	2.0	2.200	28.3	6.5	8.18	21.54	4.09	
	CLA D4	3.5	10.000	28.2	9.0			(G)	
	CLA D5	3.8	10.000	28.9	8.9				
2	CLA D1	2.2	7.400	27.9	6.5				
	CLA D2	1.1	7.400	27.6	6.2				
	CLA D3	0.1	2.200	27.2	6.5	8.45	19.58	3.82	
	CLA D4	4.2	10.000	26.7	9.3			(V)	
	CLA D5	3.7	10.000	27.2	8.9				
3	CLA D1	1.8	7.400	29.9	6.6				
	CLA D2	1.9	7.400	28.7	6.3				
	CLA D3	1.6	2.200	28.8	6.6	8.60	21.54	4.30	
	CLA D4	3.4	10.000	27.8	9.1			(G)	
	CLA D5	3.9	10.000	27.8	9.0				
4	CLA D1	2.6	7.200	26.8	9.0				
	CLA D2	1.1	7.200	27.3	6.3				
	CLA D3	1.0	2.200	27.3	6.6	8.16	19.85	3.97	
	CLA D4	3.8	10.000	28.3	9.0			(V)	
	CLA D5	3.8	10.000	25.9	9.0				
5	CLA D1	2.3	7.400	26.9	8.7				
	CLA D2	1.2	7.400	27.8	6.5				
	CLA D3	1.2	2.200	27.1	6.7	8.31	18.60	3.72	
	CLA D4	3.5	10.100	26.8	9.2			(V)	
	CLA D5	3.5	10.100	28.7	9.0				
6	CLA D1	1.0	7.300	24.7	6.7				
	CLA D2	1.7	7.300	26.4	6.8				
	CLA D3	1.7	2.200	26.8	6.8	7.17	15.17	3.03	
	CLA D4	4.3	10.000	24.9	9.1			(V)	
	CLA D5	3.5	10.000	26.8	9.0				
7	CLA D1	2.4	7.100	24.8	6.5				
	CLA D2	1.6	7.100	25.0	6.4				
	CLA D3	1.5	2.200	25.1	6.7	9.83	19.39	3.88	
	CLA D4	5.3	10.000	24.3	9.0			(V)	
	CLA D5	4.0	10.000	25.2	9.0				
8	CLA D1	2.9	7.100	26.1	6.2				
	CLA D2	1.6	7.100	26.4	6.3				
	CLA D3	1.8	2.200	26.1	6.6	10.32	21.75	4.35	
	CLA D4	4.1	10.000	25.7	9.0			(V)	
	CLA D5	3.9	10.000	26.0	8.9				

PERFORMANCE DATA

DISINFECTION PROCESS DATA									
Date	Disinfectant	C (mg/L)	Flow (MGD)	Temp (°C)	pH	Giardia Log	Virus Log	Inact. Ratio	Time ₁₀
9	CLA D1	1.9	7.300	28.8	6.6				
	CLA D2	1.2	7.300	28.0	6.4				
	CLA D3	1.1	2.200	27.9	6.7	7.92	20.60	3.98	
	CLA D4	3.5	10.000	28.1	9.0			(G)	
	CLA D5	3.6	10.000	30.0	8.9				
10	CLA D1	1.7	7.400	28.7	6.5				
	CLA D2	0.5	7.400	28.7	6.4				
	CLA D3	0.6	2.200	30.3	6.8	6.60	16.47	3.29	
	CLA D4	3.5	10.000	27.6	9.0			(V)	
	CLA D5	3.2	10.000	28.6	8.9				
11	CLA D1	2.6	7.200	25.8	6.6				
	CLA D2	1.4	7.200	26.0	6.4				
	CLA D3	1.5	2.200	26.4	6.7	9.48	19.27	3.65	
	CLA D4	4.6	10.000	25.4	9.0			(V)	
	CLA D5	3.6	10.000	25.1	9.0				
12	CLA D1	2.6	7.200	22.6	6.3				
	CLA D2	1.4	7.200	22.8	6.2				
	CLA D3	1.5	2.200	23.9	6.6	7.81	15.75	3.15	
	CLA D4	4.5	10.000	21.2	8.9			(V)	
	CLA D5	4.0	10.000	21.7	8.9				
13	CLA D1	2.2	7.200	22.5	6.4				
	CLA D2	1.7	7.200	23.6	6.1				
	CLA D3	1.2	2.200	23.2	6.3	7.80	15.71	3.14	
	CLA D4	4.3	10.000	19.9	9.0			(V)	
	CLA D5	4.2	10.000	22.5	8.7				
14	CLA D1	2.1	7.100	23.0	6.5				
	CLA D2	1.4	7.100	23.9	6.3				
	CLA D3	1.1	5.300	22.8	6.6	7.16	14.40	2.88	
	CLA D4	3.5	10.000	21.8	9.0			(V)	
	CLA D5	3.7	10.000	22.4	8.8				
15	CLA D1	2.7	7.400	26.0	6.4				
	CLA D2	1.1	7.400	25.6	6.1				
	CLA D3	1.1	2.200	25.4	6.6	8.47	17.27	3.45	
	CLA D4	3.8	10.000	24.4	9.0			(V)	
	CLA D5	3.2	10.000	24.5	8.9				
16	CLA D1	2.4	7.300	27.7	6.7				
	CLA D2	1.5	7.300	27.3	6.3				
	CLA D3	1.5	2.200	27.6	6.5	8.32	18.20	3.64	
	CLA D4	3.4	10.000	24.7	9.0			(V)	
	CLA D5	3.1	10.000	24.5	9.0				

NOTE: = ONLY use the "Time₁₀" column to show the length of time that the total inactivation ratio was less than 1.00.

SUBMITTED BY:



Certificate No.

and Grade: W00023530, A Surface

Date: October 10, 2014

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: City of Wichita Falls PLANT NAME OR NUMBER: Cypress DPR (Microfiltration/RO)
PWS ID No.: 2430001 Plant ID No.: 21567 Month: September Year: 2014

DISINFECTION PROCESS PARAMETERS									
APPROVED CT STUDY PARAMETERS						PERFORMANCE STANDARDS			
Parameters	Disinfection Zones					Log Inactivations			
	D1	D2	D3	D4	D5	Giardia lamblia Cysts		Virus	
Flow Rate (MGD)	7.50	7.50	3.31	10.00	10.00	2.0		5.0	
T ₁₀ (minutes)	357.00	223.20	6.60	67.10	223.30				

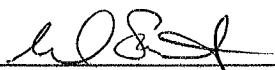
PERFORMANCE DATA									
Date	DISINFECTION PROCESS DATA								
	Disinfectant	C (mg/L)	Flow (MGD)	Temp (°C)	pH	Giardia Log	Virus Log	Inact. Ratio	Time (min)
17	CLA D1	2.6	7.200	28.8	6.6				
	CLA D2	1.4	7.200	26.4	6.4				
	CLA D3	1.4	2.200	25.6	6.7	9.02	19.03	3.81	
	CLA D4	4.0	10.000	24.2	9.2			(V)	
	CLA D5	3.7	10.000	23.8	9.0				
18	CLA D1	2.7	7.200	26.3	6.6				
	CLA D2	1.5	7.200	26.6	6.4				
	CLA D3	1.5	2.200	26.2	6.7	9.51	19.77	3.95	
	CLA D4	4.5	10.000	24.8	9.2			(V)	
	CLA D5	3.7	10.000	24.1	9.1				
19	CLA D1	2.4	7.300	27.0	6.8				
	CLA D2	1.0	7.300	26.0	6.5				
	CLA D3	1.1	2.200	26.0	6.8	8.79	18.64	3.73	
	CLA D4	4.4	10.000	24.1	9.1			(V)	
	CLA D5	3.8	10.000	25.6	9.0				
20	CLA D1	0.1	7.200	28.4	6.7				
	CLA D2	2.6	7.200	27.3	6.4				
	CLA D3	1.3	2.200	27.5	6.8	6.98	15.65	3.13	
	CLA D4	4.1	10.000	25.6	9.1			(V)	
	CLA D5	3.9	10.000	27.1	9.1				
21	CLA D1	2.3	7.300	27.9	6.4				
	CLA D2	0.8	7.300	28.3	6.3				
	CLA D3	1.0	2.200	27.5	6.7	6.90	15.72	3.14	
	CLA D4	3.8	10.000	26.6	9.0			(V)	
	CLA D5	2.1	10.000	25.7	9.0				
22	CLA D1	2.2	7.300	26.2	6.5				
	CLA D2	1.5	7.300	27.4	6.3				
	CLA D3	1.2	2.200	26.5	6.7	8.33	17.66	3.53	
	CLA D4	3.7	10.000	25.5	9.2			(V)	
	CLA D5	3.2	10.000	25.7	9.0				
23	CLA D1	2.5	7.300	26.0	6.6				
	CLA D2	1.2	7.300	25.6	6.4				
	CLA D3	1.1	2.200	26.6	6.8	7.37	15.08	3.02	
	CLA D4	3.5	10.000	23.6	9.2			(V)	
	CLA D5	2.1	10.000	25.1	9.1				
24	CLA D1	2.4	7.300	25.5	6.5				
	CLA D2	1.6	7.300	24.6	6.4				
	CLA D3	1.3	2.200	24.9	6.7	8.84	17.72	3.54	
	CLA D4	4.1	10.000	24.9	9.2			(V)	
	CLA D5	3.3	10.000	25.4	9.1				

PERFORMANCE DATA									
Date	DISINFECTION PROCESS DATA								
	Disinfectant	C (mg/L)	Flow (MGD)	Temp (°C)	pH	Giardia Log	Virus Log	Inact. Ratio	Time (min)
25	CLA D1	2.4	7.500	25.5	6.6				
	CLA D2	1.4	7.500	26.0	6.4				
	CLA D3	0.9	2.200	25.8	6.7	8.11	16.38	3.26	
	CLA D4	3.6	10.000	24.5	9.1			(V)	
	CLA D5	3.2	10.000	24.1	9.1				
26	CLA D1	2.7	7.300	24.4	6.5				
	CLA D2	2.1	7.300	25.4	6.4				
	CLA D3	1.6	2.200	22.4	6.7	9.39	16.64	3.73	
	CLA D4	3.8	10.000	24.1	9.2			(V)	
	CLA D5	3.4	10.000	24.5	9.2				
27	CLA D1	2.0	7.100	24.3	6.4				
	CLA D2	1.6	7.100	24.8	6.2				
	CLA D3	1.6	2.200	24.6	6.5	8.08	16.10	3.22	
	CLA D4	4.4	10.000	23.2	9.1			(V)	
	CLA D5	3.8	10.000	22.9	9.1				
28	CLA D1	2.4	7.200	24.3	6.6				
	CLA D2	1.3	7.200	25.1	6.3				
	CLA D3	1.0	2.200	24.3	6.7	8.44	16.73	3.35	
	CLA D4	4.2	10.000	24.0	9.1			(V)	
	CLA D5	3.6	10.000	24.1	9.0				
29	CLA D1	1.5	7.200	27.2	6.4				
	CLA D2	1.5	7.200	26.0	6.2				
	CLA D3	0.7	2.200	25.9	6.5	7.61	15.90	3.18	
	CLA D4	3.7	10.000	24.5	9.1			(V)	
	CLA D5	3.8	10.000	24.2	9.0				
30	CLA D1	1.2	7.200	27.0	6.5				
	CLA D2	2.5	7.200	25.7	6.3				
	CLA D3	2.1	2.200	25.3	6.7	7.91	16.25	3.25	
	CLA D4	2.8	10.000	24.7	9.1			(V)	
	CLA D5	3.6	10.000	24.8	9.0				
31	D1								
	D2								
	D3								
	D4								
	D5								

Max 10.32 21.75
Min 6.60 14.40
Avg 8.30 17.81
SD 0.89 2.07

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

SUBMITTED BY:



Certificate No. and Grade:

WO0023530, A Surface

Date: October 10, 2014

MEMBRANE MONTHLY OPERATING REPORT

FOR PUBLIC WATER SYSTEMS THAT ARE USING SURFACE WATER SOURCES
OR GROUND WATER SOURCES UNDER THE INFLUENCE OF SURFACE WATER
Pressure Decay Rate Direct Integrity Tests

PUBLIC WATER
SYSTEM NAME: City of Wichita Falls

PLANT NAME
OR NUMBER: Cypress DPR (Microfiltration/RO)

PWS ID No.: 2430001

Plant ID No.: 21567

Month: September

Year: 2014

TEST PARAMETERS & ADDITIONAL DATA

DIT CONDITIONS & ADDITIONAL DATA	Unit No. 1										Unit No. 2									
	DIT Cond'n's	P _{test} psi	LRC	UCL		Prev. Month Data	DIT _{test} date	Pass? Yes/No	C/A Success?		DIT Cond'n's	P _{test} psi	LRC	UCL		Prev. Month	DIT _{test} date	Pass? Yes/No	C/A Success?	
		16.6	2.8	1.650			8/31/14	YES	NA			16.6	2.8	1.650			8/31/14	YES	NA	
	Optional Data	Filt.Flux gfd	TMP psi								Optional Data	Filt.Flux gfd	TMP psi							

PERFORMANCE DATA

Date	Unit No. 1										Unit No. 2									
	Operational Data					DIT Data					Operational Data					DIT Data				
	Daily Pump. MG	Norm. Filt.Flux gfd	TMP psi	Norm. Spc.Flux gfd/psi	Daily Max. mNTU	CIP done?	P _{initial} psi	ΔP _{test} /Δt psi/min	DIT pass?	C/A success?	Daily Pump. MG	Norm. Filt.Flux gfd	TMP psi	Norm. Spc.Flux gfd/psi	Daily Max. mNTU	CIP done?	P _{initial} psi	ΔP _{test} /Δt psi/min	DIT pass?	C/A success?
1	1.259	14.4	2.8	5.07	27		18.2	0.700	YES	NA	1.324	14.4	2.4	6.05	31		18.7	0.470	YES	NA
2	1.232	14.3	2.7	5.40	27		18.1	0.730	YES	NA	1.188	14.3	2.2	6.38	28		18.8	0.470	YES	NA
3	1.272	14.3	2.8	5.14	25		18.2	0.690	YES	NA	1.340	14.3	2.3	6.17	19		18.8	0.470	YES	NA
4	1.364	14.4	2.8	5.22	28		18.3	0.700	YES	NA	1.292	14.4	2.3	6.37	28		18.7	0.490	YES	NA
5	1.312	14.5	2.9	5.02	28		18.4	0.670	YES	NA	1.240	14.4	23.4	0.62	18		18.8	0.460	YES	NA
6	1.341	14.3	3.0	4.83	30		18.3	0.660	YES	NA	1.366	14.3	2.3	6.11	33		18.6	0.460	YES	NA
7	1.282	14.3	3.1	4.57	26		18.3	0.610	YES	NA	1.249	14.3	2.5	5.72	18		18.7	0.430	YES	NA
8	1.000	14.4	3.3	4.36	34		18.3	0.640	YES	NA	1.000	14.4	2.3	6.23	34		18.7	0.450	YES	NA
9	1.306	14.3	3.1	4.64	27		18.3	0.640	YES	NA	0.582	14.2	1.5	9.50	22		16.6	0.400	YES	NA
10	1.260	14.4	3.2	4.45	29		18.4	0.640	YES	NA	1.206	14.2	1.6	8.66	23		17.7	0.780	YES	NA
11	1.152	14.3	3.2	4.48	27		18.3	0.630	YES	NA	1.518	14.2	1.8	8.05	32		17.9	0.660	YES	NA
12	1.380	14.3	3.5	4.09	30		18.2	0.620	YES	NA	1.298	14.3	1.9	7.42	16		18.0	0.650	YES	NA
13	1.000	13.9	3.4	4.12	30		18.1	0.590	YES	NA	1.000	14.4	1.9	7.42	28		18.0	0.590	YES	NA
14	1.000	14.3	3.8	3.73	25		18.3	0.580	YES	NA	1.000	14.4	2.2	6.68	19		18.1	0.580	YES	NA
15	1.194	14.3	3.5	4.15	30		18.3	0.610	YES	NA	1.246	14.3	2.0	7.34	10		18.2	0.580	YES	NA
16	1.367	14.3	3.6	3.89	26		18.2	0.620	YES	NA	1.339	14.3	2.0	7.29	29		18.2	0.580	YES	NA
17	1.195	14.3	3.2	4.45	26		18.3	0.610	YES	NA	1.246	14.3	1.9	7.53	20		18.3	0.580	YES	NA
18	1.273	14.3	3.5	4.10	33		18.0	0.610	YES	NA	1.348	14.3	2.0	7.15	28		18.0	0.580	YES	NA
19	1.373	14.3	3.3	4.30	32		18.2	0.640	YES	NA	1.252	14.3	1.9	7.44	19		18.3	0.540	YES	NA
20	1.272	14.3	3.6	4.03	29		18.2	0.610	YES	NA	1.281	14.3	2.1	6.94	33		18.4	0.560	YES	NA
21	1.511	14.4	3.4	4.29	40		18.3	0.630	YES	NA	1.514	14.4	2.0	7.09	19		18.2	0.580	YES	NA
22	1.239	14.3	3.5	4.05	28		18.3	0.610	YES	NA	1.211	14.3	2.1	6.81	35		18.4	0.550	YES	NA
23	1.377	14.3	3.6	3.94	29		18.3	0.610	YES	NA	1.316	14.3	2.1	6.91	24		18.2	0.560	YES	NA
24	1.260	14.3	3.8	3.77	30		18.3	0.600	YES	NA	1.232	14.3	2.3	6.33	25		18.4	0.520	YES	NA
25	1.380	14.3	3.9	3.65	28		18.3	0.590	YES	NA	1.372	14.3	2.3	6.35	22		18.3	0.620	YES	NA
26	1.318	14.3	4.0	3.55	30		18.3	0.600	YES	NA	1.179	14.3	2.4	5.98	25		18.4	0.510	YES	NA
27	1.330	14.3	4.3	3.32	34		18.2	0.620	YES	NA	1.322	14.3	2.4	5.96	17		18.3	0.630	YES	NA
28	1.300	14.4	4.2	3.48	35		18.3	0.610	YES	NA	1.300	14.4	2.7	5.32	21		18.4	0.520	YES	NA
29	1.300	14.3	4.1	3.50	30		18.2	0.610	YES	NA	1.300	14.5	2.7	5.44	25		18.3	0.530	YES	NA
30	1.212	14.3	3.9	3.70	29		18.2	0.620	YES	NA	1.257	14.3	2.4	6.03	17		18.4	0.520	YES	NA
31																				

SUMMARY	Unit No. 1										Unit No. 2									
	Operational Data										Operational Data									
	DIT Data										DIT Data									
	General Remarks										Additional Comments									

SUBMITTED BY:



Certificate No. and Grade: WO0023530, A Surface

Date: October 10, 2014

TCEQ - 20356-MGD (07-01-13)

Membranes, PBT

MMOR

MEMBRANE MONTHLY OPERATING REPORT
FOR PUBLIC WATER SYSTEMS THAT ARE USING SURFACE WATER SOURCES
OR GROUND WATER SOURCES UNDER THE INFLUENCE OF SURFACE WATER (cont.)
Pressure Decay Rate Direct Integrity Tests (cont.)

PUBLIC WATER
 SYSTEM NAME: City of Wichita Falls

PLANT NAME
 OR NUMBER: Cypress DPR (Microfiltration/RO)

PWS ID No.: 2430001

Plant ID No.: 21667

Month: September

Year: 2014

TEST PARAMETERS & ADDITIONAL DATA

DIT CONDITIONS & ADDITIONAL DATA	Unit No. 3										Unit No. 4									
	DIT Cond'n's	P _{test} psi	LRC	UCL		Prev. Month	DIT _{test} date	Pass? Yes/No	C/A Success?		DIT Cond'n's	P _{test} psi	LRC	UCL		Prev. Month	DIT _{test} date	Pass? Yes/No	C/A Success?	
		16.6	2.8	1.650			8/31/14	YES	NA			16.6	2.8	1.650			8/31/14	YES	NA	
	Optional Data	Filt.Flux gfd	TMP psi								Optional Data	Filt.Flux gfd	TMP psi							

PERFORMANCE DATA

Date	Unit No. 3										Unit No. 4									
	Operational Data						DIT Data				Operational Data						DIT Data			
	Daily Pump. MG	Norm. Filt.Flux gfd	TMP psi	Norm. Spc.Flux gfd/psi	Daily Max. mNTU	CIP done?	P _{initial} psi	ΔP _{test} /Δt psi/min	DIT pass?	C/A success?	Daily Pump. MG	Norm. Filt.Flux gfd	TMP psi	Norm. Spc.Flux gfd/psi	Daily Max. mNTU	CIP done?	P _{initial} psi	ΔP _{test} /Δt psi/min	DIT pass?	C/A success?
1	1.259	14.4	3.1	4.63	31		18.2	0.650	YES	NA	1.373	14.8	1.0	15.14	29		19.0	0.400	YES	NA
2	1.264	14.3	3.3	4.99	40		19.1	0.640	YES	NA	1.146	14.4	0.9	15.31	26		19.1	0.400	YES	NA
3	1.264	14.3	3.1	4.62	42		18.3	0.630	YES	NA	1.352	14.3	0.9	16.30	26		19.0	0.400	YES	NA
4	1.342	14.5	3.4	4.29	44		18.3	0.620	YES	NA	1.274	14.5	0.9	15.44	37		19.1	0.400	YES	NA
5	1.260	14.4	3.2	4.63	34		18.3	0.620	YES	NA	1.384	14.6	0.9	15.53	26		18.9	0.400	YES	NA
6	1.276	14.3	3.5	4.11	51		18.2	0.590	YES	NA	1.275	14.4	1.0	14.49	31		18.9	0.390	YES	NA
7	1.357	14.3	3.4	4.19	30		18.2	0.580	YES	NA	1.346	14.5	1.0	13.89	27		18.8	0.390	YES	NA
8	1.000	14.4	3.5	4.10	43		18.3	0.570	YES	NA	1.000	14.4	1.0	14.70	27		18.9	0.390	YES	NA
9	1.443	14.3	3.4	4.15	28		17.1	0.520	YES	NA	1.505	14.9	1.1	13.82	77		19.0	0.400	YES	NA
10	1.452	14.4	3.6	4.02	40		18.3	0.580	YES	NA	1.200	14.4	1.0	14.40	32		19.0	0.390	YES	NA
11	1.271	14.3	3.7	3.92	46		18.2	0.570	YES	NA	1.224	14.3	1.1	13.39	31		18.8	0.390	YES	NA
12	1.286	14.3	3.8	3.73	28		18.3	0.550	YES	NA	1.250	14.4	1.1	12.63	27		18.8	0.390	YES	NA
13	1.000	14.6	4.0	3.65	41		18.2	0.540	YES	NA	1.000	14.4	1.3	11.09	27		18.0	0.380	YES	NA
14	1.000	14.6	4.0	3.62	50		18.3	0.530	YES	NA	1.000	14.5	1.1	12.75	25		18.7	0.380	YES	NA
15	1.381	14.3	4.0	3.60	29		18.2	0.550	YES	NA	1.399	14.5	1.2	12.27	32		18.8	0.380	YES	NA
16	1.262	14.3	3.8	3.62	30		18.3	0.550	YES	NA	1.185	14.4	1.1	13.28	33		18.7	0.400	YES	NA
17	1.354	14.4	3.9	3.68	32		18.3	0.570	YES	NA	1.368	14.4	1.1	12.74	29		18.9	0.390	YES	NA
18	1.264	14.3	3.7	3.68	29		18.3	0.580	YES	NA	1.291	14.4	1.1	13.42	32		18.9	0.390	YES	NA
19	1.328	14.3	4.0	3.63	42		18.3	0.540	YES	NA	1.268	14.4	1.1	12.74	28		18.8	0.380	YES	NA
20	1.314	14.3	3.8	3.62	40		18.2	0.580	YES	NA	1.782	14.4	1.1	13.34	26		18.9	0.390	YES	NA
21	1.504	14.4	4.4	3.27	53		18.3	0.550	YES	NA	1.508	14.4	1.0	14.40	53		18.9	0.380	YES	NA
22	1.384	14.3	3.8	3.74	29		18.3	0.570	YES	NA	1.345	14.4	1.1	12.95	29		18.9	0.390	YES	NA
23	1.280	14.3	4.2	3.45	50		18.3	0.550	YES	NA	1.274	14.4	1.2	12.19	60		18.8	0.380	YES	NA
24	1.324	14.3	4.2	3.46	40		18.2	0.550	YES	NA	1.365	14.4	1.2	11.62	40		18.7	0.390	YES	NA
25	1.286	14.3	4.4	3.29	40		18.2	0.630	YES	NA	1.236	14.3	1.3	11.47	26		18.7	0.380	YES	NA
26	1.352	14.3	4.4	3.23	29		18.2	0.550	YES	NA	1.372	14.4	1.3	10.90	38		18.7	0.380	YES	NA
27	1.235	14.3	4.6	3.11	44		18.2	0.550	YES	NA	1.284	14.4	1.3	10.75	28		18.8	0.380	YES	NA
28	1.300	14.4	4.9	2.95	32		18.2	0.560	YES	NA	1.300	14.4	1.5	9.96	31		18.7	0.380	YES	NA
29	1.300	14.3	3.7	3.90	43		18.2	0.550	YES	NA	1.300	13.9	1.5	9.57	38	YES	18.8	0.380	YES	NA
30	1.370	14.3	4.5	3.20	28		18.2	0.570	YES	NA	1.368	14.4	0.8	18.97	28		18.2	0.620	YES	NA
31																				

SUMMARY	Unit No. 3										Unit No. 4									
	Operational Data										Operational Data									
	DIT Data										DIT Data									
	Number of days with DIT triggered by high turbidity or particle count										Number of days with DIT triggered by high turbidity or particle count									
	0										0									

SUBMITTED BY:

Certificate No.
 and Grade:

WO0023530, A Surface

Date: October 10, 2014

MEMBRANE MONTHLY OPERATING REPORT
FOR PUBLIC WATER SYSTEMS THAT ARE USING SURFACE WATER SOURCES
OR GROUND WATER SOURCES UNDER THE INFLUENCE OF SURFACE WATER (cont.)
Pressure Decay Rate Direct Integrity Tests (cont.)

PUBLIC WATER
 SYSTEM NAME: City of Wichita Falls

PLANT NAME
 OR NUMBER: Cypress DPR (Microfiltration/RO)

PWS ID No.: 2430001

Plant ID No.: 21667

Month: September

Year: 2014

TEST PARAMETERS & ADDITIONAL DATA																		
DIT CONDITIONS & ADDITIONAL DATA	Unit No. 5									Unit No. 6								
	DIT Cond'n's	P _{test} psi	LRC -	UCL psi/min		Prev. Month	DIT _{last} date	Pass? Yes/No	C/A Success?	DIT Cond'n's	P _{test} psi	LRC -	UCL psi/min		Prev. Month	DIT _{last} date	Pass? Yes/No	C/A Success?
		18.6	2.8	1.850			8/31/14	YES	NA									
	Optional Data	Filt.Flux gfd	TMP psi							Optional Data	Filt.Flux gfd	TMP psi						

PERFORMANCE DATA																				
Date	Unit No. 5										Unit No. 6									
	Operational Data						DIT Data				Operational Data						DIT Data			
	Daily Pump. MG	Norm. Filt.Flux gfd	TMP psi	Norm. Spc.Flux gfd/psi	Daily Max. mNTU	CIP done? -	P _{initial} psi	ΔP _{test} /Δt psi/min	DIT pass? -	C/A success? -	Daily Pump. MG	Norm. Filt.Flux gfd	TMP psi	Norm. Spc.Flux gfd/psi	Daily Max. mNTU	CIP done? -	P _{initial} psi	ΔP _{test} /Δt psi/min	DIT pass? -	C/A success? -
1	1.362	14.5	1.5	9.88	14		19.0	0.430	YES	NA										
2	1.130	14.3	1.4	9.83	18		19.1	0.420	YES	NA										
3	1.334	14.3	1.4	10.15	18		19.0	0.420	YES	NA										
4	1.278	14.5	1.5	9.83	17		19.1	0.420	YES	NA										
5	1.360	14.6	1.5	9.87	16		18.9	0.400	YES	NA										
6	1.279	14.3	1.5	9.41	14		19.0	0.390	YES	NA										
7	1.331	14.3	1.6	8.85	16		18.9	0.380	YES	NA										
8	1.000	14.5	1.8	8.81	14		19.0	0.380	YES	NA										
9	1.509	14.6	1.7	8.83	17		19.0	0.400	YES	NA										
10	1.162	14.4	1.5	9.45	17		19.0	0.410	YES	NA										
11	1.302	14.3	1.7	8.58	16		18.9	0.390	YES	NA										
12	1.298	14.3	1.7	8.48	18		18.9	0.390	YES	NA										
13	1.000	14.4	2.0	7.10	15		18.8	0.370	YES	NA										
14	1.000	14.4	2.0	7.24	17		18.9	0.370	YES	NA										
15	1.310	14.3	1.8	8.01	18		19.0	0.370	YES	NA										
16	1.348	14.3	1.7	8.57	16		18.9	0.380	YES	NA										
17	1.323	14.4	1.7	8.44	23		18.9	0.380	YES	NA										
18	1.352	14.3	1.7	8.52	14		19.0	0.380	YES	NA										
19	1.303	14.3	1.7	8.38	17		19.0	0.370	YES	NA										
20	1.333	14.3	1.7	8.24	14		19.0	0.380	YES	NA										
21	1.529	14.5	1.8	7.95	31		19.0	0.380	YES	NA										
22	1.373	14.4	1.8	8.02	19		18.9	0.380	YES	NA										
23	1.294	14.3	1.8	7.97	15		18.8	0.400	YES	NA										
24	1.344	14.3	2.0	7.35	14		18.9	0.370	YES	NA										
25	1.214	14.3	1.9	7.57	15		18.8	0.400	YES	NA										
26	1.290	14.3	2.1	6.95	15		18.9	0.360	YES	NA										
27	1.332	14.3	2.0	7.12	16		18.7	0.380	YES	NA										
28	1.300	14.4	2.1	6.74	15		18.9	0.370	YES	NA										
29	1.300	14.4	2.1	6.99	15		18.8	0.380	YES	NA										
30	1.275	14.3	2.0	7.05	15		19.0	0.370	YES	NA										
31																				

SUMMARY	Unit No. 5								Unit No. 6							
	DIT								DIT							
	Number of days with DIT triggered by high turbidity or particle count								0							
	Number of dates with monitoring violation								0							
	Number of dates with failure to pass DIT								0							
Comments	Number of dates with treatment technique violation								0							
	General Remarks								Additional Comments							

SUBMITTED BY:



Certificate No.
 and Grade:

WQ0023530, A Surface

Date: October 10, 2014

TCEQ - 20356-MOD (07-01-13)

Membranes, PBT - Addendum

MMOR

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.)

L72ESWTR Summary Page

PUBLIC WATER SYSTEM NAME: City of Wichita Falls PLANT NAME: Cypress DPR (Microfiltration/RO)

PWS ID No.: 2430001 Plant ID No.: 21567 OR NUMBER: September Year: 2014

TREATMENT TECHNOLOGIES																	
Note: Indicate the treatment processes in each train. (see comment)	PRETREATMENT CREDITS				FILTRATION TECHNOLOGY CREDITS						ENHANCED PERFORMANCE CREDITS		DISINFECTION TECHNOLOGY CREDITS			OTHER TREATMENT CREDITS	
	Riverbank Filtration	Pressd. 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.
	FALSE	FALSE	FALSE	TRUE	TRUE	FALSE	FALSE	TRUE	TRUE		TRUE	TRUE	FALSE	FALSE		FALSE	TRUE
Overall				TRUE	TRUE						TRUE	TRUE					TRUE
Train 1																	
Train 2																	
Train 3																	
Train 4																	
Train 5																	
1								2.80									0.50
2								2.80									0.50
3								2.80									0.50
4								2.80									0.50
5								2.80									0.50
6								2.80									0.50
7								2.80									0.50
8								2.80									0.50
9								2.80									0.50
10								2.80									0.50
11								2.80									0.50
12								2.80									0.50
13								2.80									0.50
14								2.80									0.50
15								2.80									0.50
16				0.50	2.50			2.80			0.00	1.00					0.50
17								2.80									0.50
18								2.80									0.50
19								2.80									0.50
20								2.80									0.50
21								2.80									0.50
22								2.80									0.50
23								2.80									0.50
24								2.80									0.50
25								2.80									0.50
26								2.80									0.50
27								2.80									0.50
28								2.80									0.50
29								2.80									0.50
30								2.80									0.50
31								2.80									0.50
MIN				0.5	2.5			2.80			0.0	1.0					0.5

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: City of Wichita Falls Plant ID No.: 2430001 Plant ID No.: 21567 Month: September Year: 2014

PLANT NAME
OR NUMBER: Cypress DPR (Microfiltration/RO)

GIARDIA AND CRYPTOSPORIDIUM TREATMENT CREDITS										GIARDIA INACTIVATION CREDITS	VIRAL INACTIVATION CREDITS
Total Daily Credit By Train										Total Daily Inactivation Credit By Train	Total Daily Inactivation Credit by Train
Overall	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	Minimum	Minimum
Train 1	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	TRUE	FALSE
Train 2	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	TRUE	FALSE
Train 3	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	TRUE	FALSE
Train 4	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	TRUE	FALSE
Train 5	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	TRUE	FALSE
1	7.30									2.80	8.18
2	7.30									2.80	8.45
3	7.30									2.80	8.60
4	7.30									2.80	9.16
5	7.30									2.80	8.31
6	7.30									2.80	7.17
7	7.30									2.80	9.83
8	7.30									2.80	10.32
9	7.30									2.80	7.92
10	7.30									2.80	6.60
11	7.30									2.80	9.48
12	7.30									2.80	7.81
13	7.30									2.80	7.80
14	7.30									2.80	7.16
15	7.30									2.80	8.47
16	7.30									2.80	8.32
17	7.30									2.80	9.02
18	7.30									2.80	9.51
19	7.30									2.80	8.79
20	7.30									2.80	6.98
21	7.30									2.80	6.90
22	7.30									2.80	8.33
23	7.30									2.80	7.37
24	7.30									2.80	8.84
25	7.30									2.80	8.11
26	7.30									2.80	9.39
27	7.30									2.80	8.08
28	7.30									2.80	8.44
29	7.30									2.80	7.61
30	7.30									2.80	7.91
31											
MIN	7.30									2.80	6.60
AVG	7.30									2.80	8.30
MAX	7.30									2.80	6.60

Surface Water Monthly Operating Report

Addendum for the Direct Potable Reuse Plant

**Public Water
System Name:**

City of Wichita Falls

Plant Name or Number:

Cypress DPR (Microfiltration/RO)

PWS ID No.:

2430001

Month:

September

Year:

2014

Location:	TCEQ-1J	TCEQ-2J	TCEQ-2JB	TCEQ-20J						TCEQ-20J					
	Max Turbidity (NTU)	Min Mono- chloramine (ppm)	<i>E. coli</i> (CFU/100mL)	Nitrate-N (ppm)						Flow (MGD)					
Date				Train 1	Train 2	Train 3	Train 4	Train 5	Train 6	Train 1	Train 2	Train 3	Train 4	Train 5	Train 6
9/1	3.92	3.64	<4.00	X	X	5.7	X	7.6	6.4	X	X	1.61	X	1.63	1.62
9/2	2.70	0.01	<4.00	X	8.6	7.6	X	8.8	X	X	1.61	1.61	X	1.61	X
9/3	2.66	3.45	<4.00	X	9.1	7.1	X	X	8.4	X	1.62	1.6	X	X	1.6
9/4	2.59	2.40	<4.00	X	X	X	1.9	8	9.1	X	X	X	1.6	1.62	1.61
9/5	2.66	4.30	<4.00	X	8.5	5.4	1.9	X	X	X	1.61	1.62	1.61	X	X
9/6	2.84	3.00	<4.00	X	8	X	X	6.4	7.3	X	1.64	X	X	1.59	1.57
9/7	2.53	4.08	<4.00	X	X	6.4	2	7.6	X	X	X	1.58	1.57	1.56	X
9/8	10.52	4.01	<4.00	X	7.9	X	1.6	X	8.4	X	1.57	X	1.63	X	1.63
9/9	29.94	3.22	<4.00	X	X	5.9	X	6.8	6.7	X	X	1.57	X	1.56	1.59
9/10	9.67	3.05	<4.00	X	9.1	5.9	1.8	X	X	X	1.56	1.57	1.56	X	X
9/11	2.65	3.62	<4.00	X	9.5	X	X	6.9	8	X	1.52	X	X	1.52	1.5
9/12	2.83	3.56	<4.00	X	9.6	5.6	X	X	7.9	X	1.51	1.5	X	X	1.5
9/13	2.77	3.97	<4.00	X	7.7	4.8	X	5.5	CIP	X	1.5	1.5	X	1.51	CIP
9/14	2.77	4.06	<4.00	X	6.9	5.3	2.2	X	CIP	X	1.5	1.5	1.5	X	CIP
9/15	2.76	4.35	<4.00	X	X	5.3	3.6	6.9	8.4	X	X	1.5	1.5	1.47	1.5
9/16	3.15	3.41	<4.00	X	8.2	X	2.4	CIP	7.4	X	1.53	X	1.54	CIP	1.54
9/17	2.84	3.05	<4.00	X	8.7	6	CIP	8.2	6.9	X	1.51	1.5	CIP	1.5	1.5
9/18	2.78	3.30	<4.00	X	8	X	3.6	9	8.5	X	1.47	X	1.57	1.47	1.47
9/19	2.95	3.36	<4.00	X	CIP	CIP	2.7	8	8.1	X	CIP	CIP	1.57	1.58	1.56
9/20	2.88	4.25	<4.00	X	CIP	CIP	2.5	9.5	9	X	CIP	CIP	1.5	1.5	1.51
9/21	4.44	3.84	<4.00	X	7.9	5.2	X	7.2	X	X	1.5	1.51	X	1.52	X
9/22	4.10	4.18	<4.00	X	9	7	2.7	X	X	X	1.51	1.51	1.51	X	X
9/23	3.98	4.02	<4.00	X	X	X	3.2	6.9	9.7	X	X	X	1.49	1.51	1.52
9/24	3.88	3.77	<4.00	X	9.3	7.4	X	9.1	X	X	1.6	1.6	X	1.6	X
9/25	6.80	3.76	<4.00	X	9.2	X	2.9	X	8.3	X	1.57	X	1.57	X	1.57
9/26	5.33	3.81	<4.00	X	X	6.7	3	8.7	X	X	X	1.59	1.57	1.61	X
9/27	3.81	3.73	<4.00	X	8.8	X	X	9.2	8.7	X	1.51	X	X	1.51	1.51
9/28	3.37	4.02	<4.00	X	9	6.3	2.2	X	X	X	1.51	1.51	1.5	X	X
9/29	2.97	3.31	4	X	9.1	X	X	8.6	7.9	X	1.5	X	X	1.51	1.53
9/30	2.92	4.06	<4.00	X	X	7.8	3.5	X	9.5	X	X	1.51	1.5	X	1.5
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

*

*

See attached After Action Reports

Submitted by:



Certificate No.

and Grade:

WO0023530, AW

Date:

10-Oct-14

Surface Water Monthly Operating Report

Addendum for the Direct Potable Reuse Plant

Public Water System

Name: City of Wichita Falls

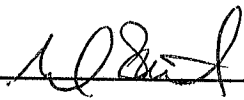
Plant Name or Number:

Cypress DPR (Microfiltration/RO)

PWS ID No.: 2430001

Month: September **Year:** 2014

Location:	TCEQ-20J							TCEQ-22J											
	Salt Rejection (% Removal)						Max 15-Min. Lagoon Return %	2-Hour Average Lagoon Return % Flows											
Date	Train 1	Train 2	Train 3	Train 4	Train 5	Train 6		12-2	2-4	4-6	6-8	8-10	10-12	12-2	2-4	4-6	6-8	8-10	10-12
9/1	X	X	84.8	X	75.2	80.7	47.47	X	X	X	X	X	X	X	X	X	X	X	X
9/2	X	75	84.9	X	80.1	X	48.10	X	X	X	X	X	X	X	X	X	X	X	X
9/3	X	76.2	84.9	X	X	78.4	48.54	X	X	X	X	X	X	X	X	X	X	X	X
9/4	X	X	X	97.3	80.9	77.8	48.24	X	X	X	X	X	X	X	X	X	X	X	X
9/5	X	77.2	86.5	97.4	X	X	47.84	X	X	X	X	X	X	X	X	X	X	X	X
9/6	X	77.8	X	X	82.5	78.7	50.06	46.49	46.39	46.72	46.75	46.70	47.44	46.98	46.85	46.32	47.03	46.98	47.08
9/7	X	X	87	97.4	81.9	X	48.27	X	X	X	X	X	X	X	X	X	X	X	X
9/8	X	75.3	X	96.5	X	75.6	48.29	X	X	X	X	X	X	X	X	X	X	X	X
9/9	X	X	85.3	X	80	76.8	48.13	X	X	X	X	X	X	X	X	X	X	X	X
9/10	X	76.3	85.5	96.3	X	X	48.01	X	X	X	X	X	X	X	X	X	X	X	X
9/11	X	77.2	X	X	80.8	77.5	46.46	X	X	X	X	X	X	X	X	X	X	X	X
9/12	X	77	86.2	X	X	77.9	44.73	X	X	X	X	X	X	X	X	X	X	X	X
9/13	X	79.6	87.4	X	82	CIP	44.63	X	X	X	X	X	X	X	X	X	X	X	X
9/14	X	78.7	88.1	96.5	X	CIP	44.66	X	X	X	X	X	X	X	X	X	X	X	X
9/15	X	X	85.5	95.6	78.2	75.8	43.68	X	X	X	X	X	X	X	X	X	X	X	X
9/16	X	77.5	X	96	CIP	76.4	48.40	X	X	X	X	X	X	X	X	X	X	X	X
9/17	X	77.9	86.7	CIP	74.7	75.1	48.70	X	X	X	X	X	X	X	X	X	X	X	X
9/18	X	77.5	X	92.8	76	76.6	46.64	X	X	X	X	X	X	X	X	X	X	X	X
9/19	X	CIP	CIP	96.1	77.4	77	46.54	X	X	X	X	X	X	X	X	X	X	X	X
9/20	X	CIP	CIP	95.5	74.9	74.4	46.19	X	X	X	X	X	X	X	X	X	X	X	X
9/21	X	75.4	84.8	X	75	X	44.94	X	X	X	X	X	X	X	X	X	X	X	X
9/22	X	75.1	83.9	95.9	X	X	47.47	X	X	X	X	X	X	X	X	X	X	X	X
9/23	X	X	X	96.3	76.5	74.6	49.90	X	X	X	X	X	X	X	X	X	X	X	X
9/24	X	75.7	85.7	X	76.6	X	47.74	X	X	X	X	X	X	X	X	X	X	X	X
9/25	X	76.4	X	96.6	X	75.4	46.92	X	X	X	X	X	X	X	X	X	X	X	X
9/26	X	X	85.3	96.4	77.7	X	48.33	X	X	X	X	X	X	X	X	X	X	X	X
9/27	X	75.6	X	X	75.4	73.1	48.58	X	X	X	X	X	X	X	X	X	X	X	X
9/28	X	77.1	85.4	96.3	X	X	48.84	X	X	X	X	X	X	X	X	X	X	X	X
9/29	X	73.9	X	X	74.4	72.9	47.52	X	X	X	X	X	X	X	X	X	X	X	X
9/30	X	X	85.4	96.1	X	74.1	47.46	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Submitted by: 

Certificate No.

and Grade: WO0023530, AW Date: 10-Oct-14

Surface Water Monthly Operating Report

Addendum for the Direct Potable Reuse Plant

Public Water
System Name: City of Wichita Falls

Plant Name or Number:
Cypress DPR (Microfiltration/RO)

PWS ID No.: 2430001

Month: September Year: 2014

Location:	TCEQ-41J	TCEQ-42J
Date	Min. Ground Storage Tank Level (% Full)	Min Total Chlorine Residual (ppm)
9/1	66%	3.40
9/2	55%	3.30
9/3	61%	3.30
9/4	73%	3.30
9/5	70%	3.10
9/6	74%	3.00
9/7	76%	3.40
9/8	76%	3.70
9/9	75%	3.30
9/10	75%	3.30
9/11	64%	3.30
9/12	64%	3.50
9/13	59%	3.70
9/14	59%	3.60
9/15	60%	3.30
9/16	66%	3.10
9/17	71%	3.10
9/18	74%	3.40
9/19	72%	3.60
9/20	70%	3.60
9/21	65%	2.70
9/22	63%	3.00
9/23	60%	2.50
9/24	57%	2.50
9/25	65%	2.70
9/26	74%	2.90
9/27	76%	2.90
9/28	70%	3.10
9/29	64%	3.20
9/30	73%	3.10
X	X	X

TCEQ-20J					
Current Month Average Salt Rejection					
Train 1	Train 2	Train 3	Train 4	Train 5	Train 6
X	76.6	85.7	96.2	77.9	76.3

TCEQ-20J					
Previous Month Average Salt Rejection					
Train 1	Train 2	Train 3	Train 4	Train 5	Train 6
X	83.6	88.2	96.7	82.8	80

TCEQ-42J			
Date	Nitrate-N (ppm)	Nitrite-N (ppm)	E. coli MPN
9/2	3.26	0.02	0.0
9/8	2.26	0.02	0.0
9/15	1.98	0.02	0.0
9/22	2.53	0.02	0.0
9/29	2.60	0.02	0.0

TCEQ-2JB			
Date	Cryptosporidium (oocysts/L)	Giardia (cysts/L)	TCV MPN
9/2	0.00	15.87	*

Previous Month's Virus Data			
TCEQ-2JB			
Date	Enterovirus	Norovirus	TCV
	MPN/100mL		

TCEQ-42J			
Date	Cryptosporidium (oocysts/L)	Giardia (cysts/L)	TCV MPN
9/3	0.00	0.00	*
9/16	0.00	0.00	*

TCEQ-42J			
Date	Enterovirus	Norovirus	TCV
	MPN/100mL		

* Virus sample results will be reported next month.

* Previous month's virus samples for TCEQ-2JB and 42J are still being tested.

Submitted by: 

Certificate No. and
Grade:

WO0023530, AW Date: 10-Oct-14

Date of Problem September 26, 2014	River Road WWTP 1J high fecal count.
Describe the problem (what happened, when it was detected, how it was detected, etc)	On September 26, 2014 the fecal coliform count was 19,000 cfu. This is above the 15,000 in the monitoring plan. The results came out on September 27, 2014 and reported to the Wastewater Supervisor and Superintendent.
Describe how the problem impacted or could have impacted the DPR treatment processes.	A higher fecal than average in secondary wastewater treatment before disinfection could possibly indicate a pathogen increase through the wastewater plant.
Describe the response. (who did what and when; did the responses achieve the desire results; how long did it take return to normal operations, etc)	A parallel sample of 4 liter is caught with each E-coli sample at 1J. On September 29, that sample was sent for testing of Giardia and Cryptosporidium. The other water parameters at the time were as follows: Turbidity 4.40, CBOD <2.00, and TSS 3.20 mg/L.
What options are available, if any, to avoid a recurrence?	At this time there does not seem to be a way to predict high fecal results.
What options, if any, could be implemented to reduce response time if the problem does reoccur?	N/A
Action Plan	None at this time.

Cryptosporidium/Giardia sample results for waste water sample collected at TCEQ-1J, high E. coli on September 26,2014

EEA ID#	Client ID	Sample Type	Collected	Received	Analyzed	Method	Analyte	Matrix	Result	Result	Units	MRL	Dil Factor
3113504	TCEQ1J-WastewaterEffBeforeChl	Field Sample	9/29/2014 8:50	9/30/2014 9:15	9/30/2014 10:40	1623	Cryptosporidium	WW	=	6.616	oocysts/L	0.945	9.452
3113504	TCEQ1J-WastewaterEffBeforeChl	Field Sample	9/29/2014 8:50	9/30/2014 9:15	9/30/2014 10:40	1623	Giardia	WW	=	8.507	cysts/L	0.945	9.452

Date of Problem	September 8, 2014 River Road WWTP
Describe the problem (what happened, when it was detected, how it was detected, etc)	At 1:54 AM the Turbidity meter spiked to 29.94 NTUs The shut off the DPR transfer pump. At 2:17 AM the Turbidity meter went down below 24 NTUs and the DPR transfer pump came back on in auto.
Describe how the problem impacted or could have impacted the DPR treatment processes.	High Turbidity can have a direct impact on the microfiltration units.
Describe the response. (who did what and when; did the responses achieve the desire results; how long did it take return to normal operations, etc)	The Operators on duty examined the equipment and the sampling pumps. While examining the sample pumps they realized the water had suspended particles in it. The particles were coming from Secondary clarifier #4. The rotating rake on secondary clarifier #4 had failed allowing the buildup of sludge in the bottom. Some of this sludge had risen to the top and escaped the clarifier. This caused the Turbidity spike. The Operators closed the flow to the Secondary Clarifier immediately, thus reducing the discharge from that Clarifier. The Operators stopped the flow then caught a sample to test the turbidity independently with a bench top meter. The turbidity at that time was 8.12. The pump was off for 23 minutes and 115,000 gallons of water was bypassed. The cause of the failure turned out to be a shear pin on the Clarifiers drive.
What options are available, if any, to avoid a recurrence?	none
What options, if any, could be implemented to reduce response time if the problem does reoccur?	none
Action Plan	The pin was replaced. The Clarifier has been allowed to run for over 8 hours without discharge to ensure proper operation.

Date of Problem	September 2, 2014 River Road WWTP
Describe the problem (what happened, when it was detected, how it was detected, etc)	The main Motor control center "MCC" tripped causing a loss of power to the aerobic side of the Wastewater Treatment. This loss of power necessitated the decrease of water flow to the aerobic system. The loss of flow meant that the supply to the DPR transfer pump to cypress could not be maintained.
Describe how the problem impacted or could have impacted the DPR treatment processes.	The loss of the aerobic system over an extended period can cause a degradation in the water quality. The loss of flow to the pumps also caused a loss of flow at the monochloramine analyzer at TCEQ-2J. Since the pumps were shut off due to loss of flow, there was no water being pumped to the Cypress WTP at this time.
Describe the response. (who did what and when; did the responses achieve the desire results; how long did it take return to normal operations, etc)	The Operators checked all equipment. The cause of the power outage has not been determined yet. All essential equipment was brought back on in stages and then reset as the power tripped. Once the minimum essential equipment was running the flow through the plant was increased and the DPR pump restarted. The DPR pump was off for approximately 140 minutes. The time was from 19:56 to 22:16 hours. With a loss of flow of 700,000 gallons.
What options are available, if any, to avoid a recurrence?	There are none at this time.
What options, if any, could be implemented to reduce response time if the problem does reoccur?	Maintenance and the Operations Supervisor were notified and responded to the site as quickly as possible.
Action Plan	The electric system of the MCC is being inspected for possible ground short.