

Waterworks Compliance Inspection - Human Consumptive Use (Part I)

System Name:	<u>FORT QU'APPELLE WATERWORKS</u>	Remote Inspection ID:	1139736
Approval No:	<u>00002189-04-00</u>		
Population:	<u>2053</u>	Announced:	<u>Yes</u>
Date:	<u>08-AUG-2018 10:00</u>	Person Interviewed:	<u>DAVIDSON, LARRY</u>

General Section

Water Supplies in Service :	<u>GROUNDWATER</u>	System Classification:	<u>TWO WT TWO WD</u>
# of Service Connections:	<u>900</u>	System Type:	<u>MUNICIPAL SYSTEM</u>
Service Connection Metering:	<u>Yes</u>		

Comments:

Contacts

Name	Position	Phone / Fax	Email
DAVIDSON, LARRY	ADMINISTRATOR	Phone: (306) 332-4341 Business: (306) 332-5266	FORTCAO@SASKTEL.NET
BETTERIDGE, BRUCE	OPERATOR	Cell: (306) 699-7509	N/A
HOLLERBAUM, SHAWN	OPERATOR	Cell: (306) 550-5785	N/A
GIROUX, BRIAN	FOREMAN	Business: (306) 332-6726 Cell: (306) 331-8118	N/A
ROKOSH, DON	SUPERINTENDENT	Business: (306) 332-6726 Cell: (306) 331-8613	N/A

Operator Certification Section

Operator Name	Certification Levels		Expiry Date	Operator is a Supervisor	Certification Exam Written	Taken Training	Plans to Test or Take Training
	Water Distribution	Water Treatment				# of CEUs	
GIROUX, BRIAN	TWO	TWO	15-JUN-2019	Yes	Yes	0.0	Yes
ROKOSH, DON	TWO	TWO	15-FEB-2020	No	Yes	0.0	Yes
HOLLERBAUM, SHAWN	ONE	ONE	15-MAY-2020	No	Yes	0.0	Yes
BETTERIDGE, BRUCE	ONE	ONE	15-JAN-2019	No	Yes	0.0	No

Test Results

Station #	Sample ID	Location/Comments	Variable	Flag	Measurement	Qualifier
SK05JL0004	2018067202	TREATY FOUR CENTRE	CHLORINE (FREE)	N/A	0.040 mg/l	N/A
"	"	"	CHLORINE (TOTAL)	N/A	0.200 mg/l	N/A
"	"	"	TURBIDITY	N/A	0.330 NTU	N/A
"	2018067203	MINISTRY OF ENVIRONMENT OFFICE - BACTI TAKEN	CHLORINE (FREE)	N/A	0.480 mg/l	N/A
"	"	"	CHLORINE (TOTAL)	N/A	0.750 mg/l	N/A
"	"	"	TURBIDITY	N/A	0.190 NTU	N/A
"	2018067204	LUTHERAN CHURCH	CHLORINE (FREE)	N/A	0.600 mg/l	N/A
"	"	"	CHLORINE (TOTAL)	N/A	0.800 mg/l	N/A
"	"	"	TURBIDITY	N/A	1.840 NTU	N/A
"	2018067205	TOWN OFFICE	CHLORINE (FREE)	N/A	0.620 mg/l	N/A
"	"	"	CHLORINE (TOTAL)	N/A	0.940 mg/l	N/A
"	"	"	TURBIDITY	N/A	0.250 NTU	N/A
"	2018067206	WTP	CHLORINE (FREE)	N/A	0.610 mg/l	N/A
"	"	"	CHLORINE (TOTAL)	N/A	0.850 mg/l	N/A
"	"	"	TURBIDITY	N/A	0.350 NTU	N/A
"	N/A	OPR SPLIT	CHLORINE (FREE)	N/A	0.620 mg/l	N/A
"	"	"	CHLORINE (TOTAL)	N/A	0.890 mg/l	N/A
"	"	"	TURBIDITY	N/A	0.380 NTU	N/A

Equipment Validation

Turbidity

Equipment Type	Equipment Name/Number	STD1(L) (Expected, Test)	STD2 (Expected, Test)	STD3 (Expected, Test)	STD4 (Expected, Test)	Result	Gel Standard
HACH 2100P	BEFORE EPO CALIBRATION.	(0.10, 0.12)	(20.00, 19.60)	(100.00, 93.00)	(800.00, 713.00)	CALIBRATE	N/A
Comment: NOT CALIBRATED PROFESSIONALLY SINCE MAY 2017. CONDUCT CALIBRATION WITH EPO STANDARDS.							
HACH 2100P	AFTER CALIBRATION	(0.10, 0.11)	(20.00, 20.10)	(100.00, 98.90)	(800.00, 800.00)	CALIBRATE	N/A
Comment: HAS NOT BEEN PROFESSIONALLY CALIBRATED SINCE MAY 2017. COULDN'T CALIBRATE WITH EPO STANDARDS.							

Chlorine

Equipment Type	Equipment Name/Number	STD1 (Expected, Test)	STD2 (Expected, Test)	STD3 (Expected, Test)	Result
DR890	N/A	(0.21, 0.24)	(0.85, 0.86)	(1.53, 1.56)	GOOD
Comment: EQUIPMENT IS OVERDUE FOR CALIBRATION. NOT CALIBRATED SINCE 2012.					

Human Consumptive Regulatory Section C=Compliant NC=Non-Compliant N/A=Not Applicable

C	NC	NA	General	Comments
X			Valid permit to operate and/or construct EMPA2010 24(1)	
X			Certified operator WWSW 62	
			Wells	
X			Constructed to exclude contaminants WWSW 22(2)	
X			Disinfection of new lines & repairs WWSW 22(2)f	
			Distribution System	
	X		Common trenching WWSW 23(1,2)	RIVERSIDE AREA IN FORT QU'APPELLE HAS COMMON TRENCHING. TOWN MUST ENSURE THAT ANY STAFF DOING WORK ON DISTRIBUTION LINES ARE MADE AWARE OF THIS. AS LINES ARE REPLACED PROPER ENGINEERING PRACTICES MUST BE ADHERED TO.
X			Disinfection of new and repaired pipelines WWSW 23(4)& 27(4)	
			Water Storage Reservoirs	
X			Water tight cover WWSW 24(2)a	
X			In good repair WWSW 24(2)b	
X			Meets reservoir design requirements WWSW 24(2)c (only applies to facilities constructed after June 1, 2015)	
X			Manholes WWSW 24(3,4) (all manholes must be 150mm above grade, 50mm lip, and locked if located outside WTP)	
	X		Pipe entries installed to prevent contamination WWSW 24(5)	RESERVOIR HATCH ON HILL TOP RESERVOIR NEEDS TO HAVE THE HANDLE SEALED PROPERLY, DOES HAVE THE REQUIRED OVERHANG.
X			Vents WWSW 24(6)	

			Water Treatment Plants and Pumphouses	
X			Floor drainage to drains or sumps WWSW 25(a)	
X			Drain lines to sanitary sewers have trap WWSW 25(b)	
X			Backflow prevention device on treatment component WWSW 25(c)	
X			Water meter(s) installed in WTP or pumphouse WWSW 25(d)	
X			Adjustable chemical feeder WWSW 25(e)	
X			Facility is clean and in orderly condition WWSW 25(f)	
X			NSF/ANSI 60 Approved chemicals being used and at or below Max. use limit WWSW 27(3) (unless otherwise approved)	
X			Proper fluoride chemical dosage	
			Disinfection	
X			Continuous chlorine disinfection WWSW 27(5) (unless otherwise approved per 27(7))	AT BREAKPOINT
X			A free chlorine residual of not less than 0.1 mg/L in water entering the distribution system WWSW 27(6)a	
	X		A total chlorine residual of not less than 0.5 mg/L OR a free chlorine residual of not less than 0.1 mg/L in water throughout the distribution system WWSW 27(6)b	ON INSPECTION, TREATY FOUR CENTRE WAS BELOW REQUIREMENT. RECOMMEND INCREASING CHLORINE LEVELS TO MAINTAIN A 1.0 MG/L CONCENTRATION OF FREE CHLORINE AT PLANT.
			Standards	
X			Bacteriological WWSW 29	NO POSITIVES.
			Slow Sand/Diatomaceous Earth Filtration	
X			Less than or equal to 1.0 NTU discrete measurements (95%) WWSW 30(2)e(i)	
			Less than or equal to 1.0 NTU continuous measurements (95%) WWSW 30(2)e(ii)	
X			Chemical standards WWSW 26(2,3) & 31	
X			Waterworks meets the requirements of current and future chemical health and pesticide related standards (effective Dec. 2010 and July 1, 2020) see Table 3 WWSW 31	
			Assessment	
X			Proper waterworks assessment WWSW 32	COMPLETED
			Operational Anomalies	
X			Reported upset condition WWSW 34(1)	
X			Reported disinfection system upset WWSW 34(2)a,b	ANY CHLORINE ISSUES (LOW LEVELS, LOSS OF BREAKPOINT ETC) MUST BE NOTIFIED TO WSA
X			Reported missing on-site water quality testing records WWSW 34(2)c	
			Testing	
X			Bacteriological testing WWSW 37(2)	
X			Bacteriological follow-up WWSW 37(5) & 37(9)	
X			Bacteriological sample after completion, alteration, extension or repair WWSW 38	
X			Chlorine monitoring WWSW 37(2)(4)	

			Other Constituents WWSW 37(2)(6)	
X			General chemical sampling conducted	SAMPLED ON JANUARY 31, 2017. DUE AGAIN IN 2019.
X			Health and toxicity sampling conducted	SAMPLED ON JANUARY 31, 2017. DUE AGAIN IN 2019.
X			On-site turbidity tests conducted	
X			AO sampling conducted	
X			Accredited laboratory WWSW 37(2)b	
			Operational Records	
X			Daily water meter reading WWSW 40(1)a	
X			Types, dosages and total amounts of chemical WWSW 40(1)b	VOLUME OF CHLORINE ADDED IS NOTED EVERYDAY NOT A DOSAGE.
X			Samples - locations, sampler, and results WWSW 40(1)c	
X			Abnormal operating procedures WWSW 40(1)d & 40(1)e	
X			Upset conditions WWSW 40(1)f (includes water treatment facility and water distribution system upsets)	
X			Chlorine upsets WWSW 40(1)g	
X			Calibration of equipment WWSW 40(1)h	ENSURE WHEN EQUIPMENT IS CALIBRATED IT IS DOCUMENTED.
X			Maintenance WWSW 40(1)i	
X			Chronological order WWSW 40(2)a	
X			Permittee recorder WWSW 40(2)b	
X			Identification of recorder WWSW 40(2)c	
X			Five year history of log WWSW 40(2)d	
X			Explanatory notes WWSW 40(2)e	
X			Factual data entry WWSW 40(2)f	
X			No default values used WWSW 40(2)g	
			QA/QC and Recordkeeping Review	
X			QA/QC and ERP in place WWSW 41(1)	NO CURRENT QAQC ON FILE. UPDATE AS REQUIRED AND FORWARD A COPY TO EPO.
X			Monthly review of records by permittee WWSW 41(2)	WATER PLANT RECORDS ARE COMPILED IN A REPORT AND THEN ARE ADDED TO COUNCIL MEETING MINUTES AS A PUBLIC WORKS REPORT. MUST ENSURE TO HAVE A SIGNED/RECEIVED COPY AT THE WATER PLANT.
X			Report abnormal or missing records WWSW 41(3)	
			Annual Notice To Customers	
	X		On water quality and sample submission compliance WWSW 42(1)	
	X		Compliance WWSW 42(1)b	
	X		Written notice provided to Minister of completion of annual notice to consumers WWSW 42(2)	ANNUAL NOTICE WAS DUE BY JUNE 30TH. PLEASE COMPLETE AND FORWARD A COPY TO EPO BY AUGUST 31ST, 2018.
			General	
X			General comments	RECOMMEND HAVING BACK FLOW PREVENTER IN PLANT TESTED ANNUALLY BY QUALIFIED PERSON.

X			Split sampling with the operator was completed	
X			Operator's test equipment appears to be performing adequately	
X			Representative of the waterworks signature was obtained	YES
X			Representative of the waterworks agreed with the inspection statements	YES
X			Source inspection was completed	



(Operator/Supervisor Signature)



Agree with statements



(EPO Signature)