



Waterworks Compliance Inspection - Human Consumptive Use (Part I)

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|---------------------|--------------------------|------------------------------|------------------------|
| System Name: | <u>WADENA WATERWORKS</u> | Remote Inspection ID: | 1187076 |
| Approval No: | <u>00002553-04-00</u> | | |
| Population: | <u>1288</u> | Announced: | <u>Yes</u> |
| Date: | <u>08-JUN-2021 10:42</u> | Person Interviewed: | <u>NEUMAN, ALYSHIA</u> |

General Section

| | | | |
|---|--------------------|-------------------------------------|-------------------------|
| Water Supplies in Service : | <u>GROUNDWATER</u> | System Classification: | <u>TWO WT TWO WD</u> |
| # of Service Connections: | <u>751</u> | System Type: | <u>MUNICIPAL SYSTEM</u> |
| Service Connection Metering: | <u>Yes</u> | Source Inspection Completed: | <u>No</u> |
| Comments: THE TOWN IS PRONE TO DISTRIBUTION SYSTEM UPSETS. THE TOWN MUST LOOK AT WAYS TO IMPROVE THE QUALITY WITHIN THE SYSTEM. | | | |

Contacts

| Name | Position | Phone / Fax | Email |
|-----------------|----------|--|----------------------|
| NEUMAN, ALYSHIA | MANAGER | Business: (306) 338-7572 Cell: (403) 580-7151 | WADENAPW@SASKTEL.NET |
| ZUBOT, MARSHALL | OPERATOR | Cell: (306) 230-4111 | N/A |
| STRAND, MELVIN | FOREMAN | Phone: (306) 331-9270 Cell: (639) 947-7377 | N/A |

Complaints:

SOME DIRTY WATER COMPLAINTS

Operator Certification Section

| Operator Name | Certification Levels | | Expiry Date | Operator is a Supervisor |
|-----------------|----------------------|-----------------|-------------|--------------------------|
| | Water Distribution | Water Treatment | | |
| NEUMAN, ALYSHIA | TWO | TWO | 15-JUN-2023 | Yes |
| ZUBOT, MARSHALL | IN PROGRESS | IN PROGRESS | N/A | No |
| STRAND, MELVIN | NONE | NONE | N/A | No |

Test Results

| Station # | Sample ID | Location/Comments | Variable | Flag | Measurement | Qualifier |
|------------|------------|-------------------|------------------|------|-------------|-----------|
| SK05MA0014 | 2021048169 | WATER PLANT | CHLORINE (FREE) | N/A | 1.280 mg/l | N/A |
| " | " | " | CHLORINE (TOTAL) | N/A | 1.740 mg/l | N/A |
| " | " | " | TURBIDITY | N/A | 0.870 NTU | N/A |
| " | 2021048170 | ESSO | CHLORINE (FREE) | N/A | 0.750 mg/l | N/A |
| " | " | " | CHLORINE (TOTAL) | N/A | 1.130 mg/l | N/A |
| " | " | " | TURBIDITY | N/A | 1.390 NTU | N/A |
| " | 2021048171 | RJ SALES | CHLORINE (FREE) | N/A | 1.230 mg/l | N/A |
| " | " | " | CHLORINE (TOTAL) | N/A | 1.590 mg/l | N/A |
| " | " | " | TURBIDITY | N/A | 1.380 NTU | N/A |
| " | 2021048172 | NUTRIEN | CHLORINE (FREE) | N/A | 0.680 mg/l | N/A |
| " | " | " | CHLORINE (TOTAL) | N/A | 0.890 mg/l | N/A |
| " | " | " | TURBIDITY | N/A | 1.080 NTU | N/A |
| " | 2021048173 | TOWN OFFICE | CHLORINE (FREE) | N/A | 1.550 mg/l | N/A |
| " | " | " | CHLORINE (TOTAL) | N/A | 1.890 mg/l | N/A |
| " | " | " | TURBIDITY | N/A | 1.200 NTU | N/A |

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|---|-----|-------------------------------|------------------|-----|------------|-----|
| " | N/A | OPERATORS TEST OF WATER PLANT | CHLORINE (FREE) | N/A | 1.250 mg/l | N/A |
| " | " | " | CHLORINE (TOTAL) | N/A | 1.800 mg/l | 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 2100Q | N/A | (10.00, 9.44) | (20.00, 19.50) | (100.00, 95.00) | (800.00, 739.00) | GOOD | N/A |

Chlorine

| Equipment Type | Equipment Name/Number | STD1 (Expected, Test) | STD2 (Expected, Test) | STD3 (Expected, Test) | Result |
|----------------|-----------------------|--------------------------|--------------------------|--------------------------|--------|
| DR890 | ...3458 | (0.22, 0.23) | (0.87, 0.92) | (1.53, 1.60) | GOOD |

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 | THE MANAGER IS THE ONLY CERTIFIED OPERATOR. THE TOWN UTILIZES CERTIFIED OPERATORS FROM OTHER TOWNS IN HER ABSENCE. THE TOWN SHOULD LOOK AT GETTING MORE OPERATORS CERTIFIED. |
| X | | | Valid water rights license EMPA2010 29(1) | THE WATER RIGHTS LICENSES WERE RENEWED AND NOW EXPIRE IN FEBRUARY 2026 |
| X | | | Copy of permit posted at waterworks EMPA2010 29(1) | PERMIT NOW POSTED AT THE WTP AS REQUIRED. |
| | | | Wells | |
| X | | | Constructed to exclude contaminants WWSW 22(2) | |
| | | | | |

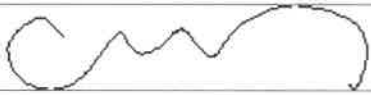
| | | | | |
|---|---|--|--|--|
| X | | | Disinfection of new lines & repairs WWSW 22(2)(f) | |
| | | | Distribution System | |
| X | | | Common trenching WWSW 23(1)(2) | |
| X | | | Disinfection of new and repaired pipelines WWSW 23(4)& 27(4) | |
| | | | Water Storage Reservoirs | |
| X | | | Water tight cover WWSW 24(2)(a) | |
| X | | | In good repair WWSW 24(2)(b) | |
| X | | | Meets reservoir design requirements (only applies to facilities constructed after June 1, 2015) WWSW 24(2)(c) | |
| X | | | Manholes (all manholes must be 150mm above grade, designed and maintained to prevent the entry of water, and locked if located outside WTP) WWSW 24(3)(4). | |
| X | | | Pipe entries installed to prevent contamination WWSW 24(5) | |
| 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 | | Water quality monitoring and testing equipment is maintained and calibrated as recommended by manufacturer EMPA2010 29(1) | VERIFY CAL FOR THE 2100Q WAS MISSED THE WEEK OF APRIL 20TH. |
| 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 (unless otherwise approved) WWSW 27(3) | |
| | | | Disinfection | |
| | | | | AS PER THE RECENT WSA ADDENDUM , CT IS BEING MET IF THE FREE RESIDUAL IS |

| | | | | |
|------------------------------|---|--|---|---|
| X | | | Continuous chlorine disinfection (unless otherwise approved per 27(7)) WWSW 27(5) | 0.15MG/L IN A FULL CLEAR WELL. FREE RESIDUAL MUST BE 0.3MG/L IF THE CLEAR WELL IS HALF FULL TO ACHIEVE CONTACT TIME. IF THE WELLS ARE DEEMED GUDI, THE SYSTEM MAY NOT MEET THE REQUIRED CONTACT TIME. |
| X | | | A free chlorine residual as required in the permit to operate a waterworks WWSW 27(7) & 31(1)(2) | |
| 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) | |
| Standards | | | | |
| X | | | Bacteriological WWSW 29 | NO POSITIVES SINCE THE LAST INSPECTION |
| | X | | Chemical standards WWSW 26(2)(3) & 31 | THE TOWN IS ROUTINELY OVER THE NEW MANGANESE REQUIREMENT OF 0.12MG/L. THEY HAVE HIRED CONSULTANTS TO INVESTIGATE WAYS TO IMPROVE TREATMENT. |
| X | | | Waterworks meets the requirements of future chemical health and pesticide related standards | |
| Groundwater | | | | |
| X | | | Less than or equal to 1.0 NTU discrete measurements (95%) WWSW 30(2)(e)(i) | |
| Assessment | | | | |
| X | | | Proper waterworks assessment WWSW 32 | WSA RECENTLY FINALIZED. IN THE FUTURE, AS PER THE RECENT REGULATION CHANGES, THE WSA IS NO LONGER REQUIRE UNLESS SPECIFICALLY REQUESTED BY THE EPO VIA PERMIT CONDITION. |
| Operational Anomalies | | | | |
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| X | | | Reported upset condition WWSW 34(1) | THE TOWN DOES A GOOD JOB OF REPORTING UPSETS AND ADVERSE CONDITIONS. |
| X | | | Reported disinfection system upset WWSW 34(2)(a)(b) | |
| X | | | Reported missing on-site water quality testing records WWSW 34(2)(c) | |
| Testing | | | | |
| X | | | Bacteriological testing WWSW 37(2) | ALL SAMPLES SUBMITTED. SOME OF THE DATA ON THE MAY 3RD SAMPLE ISN'T IN OUR DATABASE BUT THE TOWN PROVIDED THE INFO. |
| 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) | |
| X | | | Turbidity monitoring WWSW 37(2)(4) | |
| | | X | Fluoride monitoring (both onsite and offsite) WWSW 37(6) & 39 | |
| Other Constituents | | | | |
| X | | | General chemical sampling conducted WWSW 37(2)(6) | COMPLETED JANUARY 2020. REQUIRED AGAIN IN 2022. |
| X | | | Health and toxicity sampling conducted WWSW 37(2)(6) | COMPLETED JANUARY 2020. REQUIRED AGAIN IN 2022. |
| | | X | Trihalomethane sampling conducted WWSW 37(2)(6) | PLEASE CONDUCT A THM ANALYSIS TO ASCERTAIN IF THERE IS ANY DISINFECTION BY PRODUCTS FORMING IN THE SYSTEM |
| | | X | Giardia/cryptosporidium sampling conducted WWSW 37(2)(6) | |
| X | | | Accredited laboratory WWSW 37(2)(b) | |
| Water from Treatment Plant Discharged to Environment | | | | |
| | | X | Wastewater discharged to environment sampling conducted EMPA2010 29(1) | |
| Operational Records | | | | |
| X | | | Daily water meter reading WWSW 40(1)(a) | |
| X | | | Types, dosages and total amounts of chemical WWSW 40(1)(b) | |

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|---------------------------------------|--|--|---|--|
| X | | | Samples - locations, sampler, and results WWSW 40(1)(c) | |
| X | | | Abnormal operating procedures WWSW 40(1)(d) & 40(1)(e) | |
| X | | | Upset conditions (includes water treatment facility and water distribution system upsets) WWSW 40(1)(f) | |
| X | | | Chlorine upsets WWSW 40(1)(g) | |
| X | | | Calibration records for test equipment WWSW 40(1)(h) | ALL DATA COMPILED NOW. |
| 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) | UPDATE THE QA/QC AND EMERGENCY RESPONSE PLAN IF NECESSARY AND FORWARD TO THE EPO. INFO AND TEMPLATES CAN BE FOUND ON SASKH20.CA. |
| X | | | Monthly review of records by permittee WWSW 41(2) | SIGNED BY ADMIN AND ACTING CLERK SINCE THE ADMIN LEFT |
| 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 | | | Written notice provided to Minister of completion of annual notice to consumers WWSW 42(2) | RECEIVED |
| General | | | | |
| 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 |

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|-------------------------------------|--------------------------|--|--------------------------|-----|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Representative of the waterworks agreed with the inspection statements | <input type="checkbox"/> | YES |
|-------------------------------------|--------------------------|--|--------------------------|-----|



(Operator/Supervisor Signature)



Agree with statements



(EPO Signature)