



Office of Water Quality Compliance
ADEQ
5301 Northshore Drive
North Little Rock, AR 72118

April 7, 2021

Re: Rogers Water Utilities, Permit No.: AR0043397

Dear Sir or Madam:

Please accept this response outlining RWU responses and Corrective Action Plan (CAP) to correct and prevent recurrences of violations noted by Mr. Grimes in his January 13, 2021 inspection and documented in his March 30, 2021 letter. He has generously given us 15 days to receive the letter and formulate a response by April 15, 2021. The staff at Rogers takes great pride in making sure that our effluent is safely introduced back into the environment and offering the same courtesy we would enjoy receiving. Although problems can happen, we strive to learn from these mistakes and take corrective action to prevent the same issues in the future. We strive to do our work in a timely manner and are careful to investigate facts when formulating our response. In that regard, if it took Mr. Grimes 3 months to investigate and document his findings, RWU would appreciate a longer opportunity to do the same than 15 calendar days less postage assuming they left your facility the same day Mr. Grimes wrote them. RWU received the letter April 5th leaving us 10 calendar days (8 working days) to respond. RWU does not view this as professional or courteous. Please refer to his letter for documentation Mr. Grimes' findings.

Item 1:

As noted by Mr. Grimes, RWU has already as required by our permit. These were continues to document permit excursions is required by Mr. Grimes' report or our Action requested: RWU would like an exception be noted on current inspections requiring same.

Water

ons to your office and submitted responses on and I'm not sure why Mr. Grimes a consistent problem. No further action

ter Quality as to why these continue to how many more years we will need to respond to the

Item 2:

Mr. Grimes cites Part II, Section B.1.a of the permit. His photos and observations are not violations of the cited section of the permit. The permit reads as follows: "The permittee shall at all times properly operate and maintain all facilities (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit." The rest of the section is not relevant to maintenance of our clarifiers. As noted in item 1, we remain in compliance with our permit and therefore are well within the parameters outlined in the referenced section. Mr. Grimes observations are simply opinions and not based on any standard and are in fact incorrect. His photos show water going over the weirs unobstructed not obstructed as his summary of findings indicate. Further his photos show algae rather than scum. Noting Mr. Grimes apparent lack of understanding of the treatment process, his opinions of when a clarifier need to be cleaned are also not accurate. Reviewing BOD and TSS measurements is the commonly accepted practice to indicate algae from your clarifiers need to be removed. RWU cleans the weirs periodically prior to having issues with TSS or BOD.

Corrective reaction – A retraction of the assertion that the observation is a violation by the Office of Water Quality as Mr. Grimes himself noted we remain in compliance as required by our permit.

Item 3:

Mr. Grimes notes that the operators are not collecting duplicate measurements and references Part II, Section C.3 of the permit. This section mandates that we use methods approved under 40 CFR part 136 unless otherwise noted in the permit. There are no such notations for DO measurement in our permit. The method employed by our operations staff standard method 4500-O G approved as Parameter 46 in table 1B list of approved Inorganic Test Procedures in 40 CFR part 136. Referencing standard method 4500-O G, section 3, procedure: "Generally calibrate membrane electrodes by reading against air or a sample of known DO concentration...." At no point in the procedure does it call for a duplicate sample. RWU does calibrate by reading against air as allowed by the procedure. Even in the 4500-O introduction, it does not demand a duplicate. A duplicate of flowing water is meaningless in any event, both samples would be a snapshot of that moment in time at that place. RWU follows the manufacturer's instructions for sampling with the instrument as required by the standard method. We explained this during Mr. Grimes' visit and the history of this particular matter beginning the inspection by Mrs. West several years prior.

Corrective Action – A retraction of the assertion of violation by the office of water quality due to demonstrated compliance of the referenced section of our permit observed and documented by Mr. Grimes.

Item 4:

Mr. Grimes notes that the FCB analysis sheets do not include sample location, container type, preservative used, and method and reports that this is a violation of Part II, Section C.8. Mr. Grimes was offered our standard practices sheet and he declined to take it. I am attaching it now as it is a record of the plant and contains all the data he claims is missing in our records except the exact location which RWU has historically maintained and the office has agreed as being specified in the permit as effluent weir and the permit is certainly a plant record.

Corrective action: It is minimal impact to RWU to create a new FCB sheet that satisfies exact location of the effluent weir as historically agreed between the office and RWU as well locate some of the other items noted now in 2 places. New sheet is attached as well as our SOP formerly refused by Mr. Grimes.

Please respond with acknowledgment of retractions and acceptance of corrective actions offered as compliance with Mr. Grimes March 30, 2021 letter.

Sincerely,



A. Todd Beaver, P.E.

Enclosure 1- Standard practice document for Fecal Coliform

Enclosure 2- Updated FCB sheet

Copy: B. Dobler, T. Beaver, D. Staib

FECAL COLIFORM

I. SCOPE AND APPLICATION

1. The fecal coliform test is a microbiological examination of water to determine sanitary quality.
2. The coliform group of bacteria is the principal indicator of suitability of water for domestic, dietetic, or other use.
3. The membrane filter technique, which involves direct plating for detection and estimation of coliform densities, is an effective method for detection of bacteria of the coliform group.

II. SUMMARY OF METHOD

1. A measured volume of a water sample or its dilution is filtered through a membrane filter that retains bacteria, then placed on an absorbent pad saturated with M-FC broth in a petri dish and incubated at 44.5 ± 0.2 °C for 24 hours. After incubation, the blue colonies are counted and the number of fecal coliform is reported per 100 ml of the original sample.
2. Fecal coliform is defined as gram-negative nonspore-forming rods that ferment lactose in 24 ± 2 hours at 44.5 ± 0.2 °C which produce acidity with blue colonies in a membrane filter procedure.

III. INTERFERENCES

1. The fecal coliform test can be affected by highly turbid samples. Suspended particles visible in the presence of light against a dark background will yield a low colony count. By agitating the sample prior to filtration, turbidity can be reduced.
2. Microorganism populations of high density can also affect the fecal coliform test by showing poorly developed and irregularly shaped colonies. This is due to the particulate matter creating a "boulder field" over the surface and allowing colonies to surround these surfaces and form irregular shapes. Performing dilutions will reduce these particles.
3. The presence of slime from the surface of water or from deposits left by microorganisms in the sample may create a coating over the membrane filter preventing the upward diffusion of nutrients to the bacteria. No colonies, or few, poorly formed colonies may result. Measuring the viscosity of the sample against that of a known sample of water can help pinpoint problems. Sometimes, dilution will be a sufficient remedy to problems associated with high viscosity.

IV. APPARATUS

1. Autoclave, Market Forge Sterilmatic, constructed to provide uniform temperatures up to and including sterilizing temperatures of 121°C.
2. Autoclave thermometer, mercury-filled, with 1° subdivision.
3. Counting device, hand held.
4. Dilution bottles, autoclavable, for sludge.
5. Filter flasks, 1000 mL, side arm.
6. Filtration apparatus, plastic filter funnel.
7. Forceps
8. Gas burner, grip top, adjustable.

9. Graduated cylinders, various sizes, autoclavable.
10. Incubator, Blue M, water-jacketed incubator, with gabled cover, capable of maintaining a temperature of 44.5 ± 0.2 °C.
11. Membrane filter pads, sterilized, disposable.
12. Membrane filter, sterilized, with grids, 47mm, 0.45 micron.
13. Petri dish, sterilized, plastic, 47mm.
14. Pipets, various sizes, autoclavable.
15. Refrigerator, capable of maintaining a temperature of 2-8°C.
16. Sample bottle, 500 mL, plastic, autoclavable.
17. Squirt bottle, 500 mL, plastic, autoclavable.
18. Striker, to light burner.
19. Vacuum bag sealer, Seal-a-Meal model, Rival brand.
20. Vacuum hose.
21. Vacuum source, Gast vacuum pump.
22. Waterproof plastic Seal-a-Meal bags, various sizes.

V. REAGENTS

1. Alcohol, isopropyl.
2. Buffered water. Add 2.5 ml stock phosphate buffer solution (REAGENT V.11) and 10.0 mL magnesium chloride stock solution (REAGENTS V.4) to 2000 mls reagent grade water (REAGENTS V.6) in a volumetric flask. Stopper and invert to mix. Pour into autoclavable 1L bottles. The buffered water is autoclaved at 121°C for 30 minutes and cooled before use. (SM 9050 C.-1997)
3. 1N HCl. Dilute 83 mL of Hydrochloric Acid (conc.) to volume with reagent grade water (REAGENTS V. 6) in a 1 L volumetric flask.
4. Magnesium chloride stock solution. Add 40.55 g magnesium chloride ($MgCl_2 \cdot 6H_2O$) to 500 mL reagent grade water (REAGENTS V.6). Sterilize, and refrigerate (SM 9030 B.11). Discard if turbidity develops. (SM 9050 C.)
5. M-FC Broth. Suspend 3.7 g mFC Broth Base Powder in 100 mL reagent grade water (REAGENTS V.6) in a 200 mL beaker. Stir on stir plate to dissolve. Add 1 mL of 1% Rosolic Acid Solution (REAGENTS V.7). Adjust to pH 7.4+/- 0.2 with 1N HCl (REAGENTS V.3) Heat, just to near boiling. Cool before dispensing. Refrigerate in a sterile bottle. Discard after 96 hours. (SM 9222 D.1.-1997)
6. Reagent grade water. Prepare by passing tap water through a 0.45 micron filter, then an activated carbon tank followed by two deionizing tanks.
7. 1% Rosolic Acid Solution. Dissolve 0.25g Rosolic Acid powder in 0.2N NaOH (REAGENTS V.9) and dilute to 25 ml in a 50 mL plastic vial. Refrigerate in the dark and discard after 2 weeeeks or sooner if color changes from dark red to muddy brown.
8. Sodium hydroxide 1N. Prepare by dissolving 40 g of sodium hydroxide (NaOH) in a one liter volumetric flask. Dilute to volume with reagent grade water (REAGENTS V.6).
9. Sodium hydroxide 0.2N. Prepare by dissolving 4.0 g NaOH in reagent grade water (REAGENTS V 6) in a 500 mL volumetric flask..
10. Sodium thiosulfate 10% solution. Prepare by dissolving ~~78.48g~~ 23 g of sodium thiosulfate ($Na_2S_2O_3 \cdot 5H_2O$) in reagent grade water (REAGENTS V.6) in a 500 mL volumetric flask. Store in amber glass. (SM 9060 A.2-1997)
11. Stock phosphate buffer solution. Prepare by dissolving 17.0 g potassium dihydrogen phosphate (KH_2PO_4) in about 300 mls reagent grade water (REAGENTS V.6) in a 600 mL beaker. Adjust to pH 6.7-7.7 with 1N NaOH (REAGENTS V.8), and dilute to 500 mL with reagent grade water (REAGENTS V.6). Sterilize, and refrigerate. Discard if turbidity develops. (SM 9050 C.)

VI. SAFETY

1. The toxicity or carcinogenicity of each reagent used in this method has not been fully established. Each chemical should be regarded as a potential health hazard and exposure should be as low as reasonably achievable.
2. The Rogers Pollution Control Facility laboratory maintains a current awareness file of the Occupational Health and Safety Act (OSHA) regulations regarding the safe handling of the chemicals specified in this method. A reference file of Material Safety Data sheets (MSDS) is made available to all personnel involved in the chemical analysis. The RPCF laboratory also maintains a laboratory Chemical Hygiene Plan and complies with the formal facility-wide safety plan.
3. Glasses are worn at all times while performing the fecal coliform analysis.
4. It is advisable that gloves be worn throughout the analysis due to the potentially toxic characteristic of the samples, and to avoid contamination of the sterile media and materials.

VII. SAMPLING PROCEDURES

1. SAMPLE CONTAINER
Two ~~1000~~-500 mL plastic bottles, autoclavable.
2. SAMPLE CONTAINER PREPARATION
 - 2.1 Sample bottles are rinsed thoroughly with reagent grade water (REAGENTS V.6) and air dried.
 - 2.2 Dispense 1.0 mL of sodium thiosulfate, 10% (REAGENTS V.10) into the ~~1000~~-the 500 mL sample bottle. This will neutralize a sample containing up to 15 mg/L residual chlorine. Do not screw the lid on tightly on the plastic bottle.
 - 2.3 Sterilize the bottle in an autoclave at 121°C for 30 minutes.
 - 2.4 Sterilized sample bottles and apparatus should be resterilized if not used within 30 days.
3. SAMPLE PRESERVATION AND TECHNIQUE
 - 3.1 Use aseptic techniques during sampling. Keep sample bottle closed until the moment it is to be filled. When opening the bottle avoid touching any part of the bottle that will come in contact with the water sample.
 - 3.2 When the sample is collected, leave at least 2.5 cm air space in the sample bottle to facilitate mixing prior to examination.
 - 3.3 Fill the bottle to the correct sample volume, and replace lid immediately.
 - 3.4 Mix sample thoroughly by inversion to ensure residual chlorine neutralization.
 - 3.5 Sample analysis is normally initiated within 15 minutes from the time of collection, but can be held up to 8 hours with refrigeration at <10°C. (SM 9060 B-1997)
4. SAMPLE LABEL
Sample bottles are labeled according to sample location.
5. CHAIN OF CUSTODY
Chain of custody procedures are not followed on grab samples.
6. SAMPLE TYPE
Fecal coliform analysis is performed on grab samples.

7. SAMPLE VOLUME

A 1000 mL sample volume is sufficient to insure a representative sample, allow for replicate analysis, and minimize waste disposal.

VIII. ANALYTICAL PROCEDURES

1. FILTRATION SETUP

- 1.1 Clean the laboratory bench surface with a small amount of isopropyl alcohol (REAGENTS V.1). Allow the surface to dry before proceeding.
- 1.2 Assemble filter flask to vacuum pump using vacuum hose.
- 1.3 Affix the base of the sterile filter holder to the mouth of the filter flask.
- 1.4 Pour 10 mL isopropyl alcohol (REAGENTS V.1) into a 50 mL beaker.
- 1.5 Place forceps tips in beaker of alcohol. Burn off excess alcohol just prior to use by passing quickly through the burner flame. Do not hold forceps in the flame longer than is necessary to set fire to alcohol. Forceps are ready for use when flame has extinguished.

2. BLANK SAMPLE FILTRATION

- 2.1 Label the sterile petri dish with a B for Blank.
- 2.2 Using a sterile pipet, dispense 2 mL of the sterile mFC broth onto the media pad. Do not touch the pad. Pour off excess media. Replace petri dish lid.
- 2.3 Using sterile forceps, place a gridded membrane filter on the filter base. Center it over the filter support area.
- 2.4 Affix the sterile funnel section to the filter base.
- 2.5 Pour 100 mL sterile buffer water (REAGENT V.2) into the funnel.
- 2.6 Turn the vacuum pump on. As soon as all the buffer water has passed through the filter, remove the funnel apparatus. Then turn the pump off. Doing so will prevent dislodging of the membrane filter and possible contamination.
- 2.7 Using sterile forceps, transfer the membrane filter from the filter base to the petri dish with the grid side up. Touch the membrane filter on the edges only. Do not entrap air between the membrane filter and the media pad.
- 2.8 Replace the petri dish lid tightly.

3. SAMPLE FILTRATION

- 3.1 Label the sterile petri dish with either a number and/or the sample volume filtered.
- 3.2 Using a sterile pipet, dispense 2 mL of the sterile mFC broth onto the media pad. Do not touch the pad. Pour off excess media. Replace petri dish lid.
- 3.3 Affix the sterile filter funnel to the sterile filter base.
- 3.4 Using sterile forceps place a membrane filter on the filter base.
- 3.5 Add approximately 20 mL of buffer water to the funnel before adding any sample. This step is unnecessary when filtering sample volumes greater than 10 mL.
- 3.6 Shake the sample vigorously about 30 times.
- 3.7 Using a sterile graduated cylinder transfer the predetermined sample volume to the filter funnel. The sample volumes are dependent on sample origin. Sample volumes should yield 20-60 colonies. For Effluent, filter 1, 3, 10, and 50 mLs in duplicate.
- 3.8 Turn the vacuum pump on and filter the sample through the filter.
- 3.9 Just as the last of the sample is being drawn through the membrane, rinse the funnel wall with at least 30 mL of sterile buffer water. As the last of the rinse water is being

drawn through the membrane, repeat with another 30 mL rinse. Do not pour the rinse water directly onto the membrane.

- 3.10 Disconnect the filter funnel apparatus carefully without dislodging the membrane.
- 3.11 Turn off the vacuum pump.
- 3.12 Using sterile forceps transfer the membrane filter from the filter base to the petri dish using a rolling motion with grid side up.
- 3.13 Replace the petri dish lid tightly.
- 3.14 Repeat the entire procedure until all samples volumes have been filtered. Always filter smaller sample volumes first. Samples from different sources require a separate sterile filter apparatus for each source.

4. BIOSOLID SAMPLE ANALYSIS

- 4.1 Refer to FECAL COLIFORM IN DRIED BIOSOLIDS BY MPN USING A-1 MEDIUM SOP.

5. SAMPLE INCUBATION

- 5.1 Petri dishes must be placed in the incubator within ½ hour after filtration.
- 5.2 Place the petri dishes into the bag and seal securely.
- 5.3 Place the bags in the 44.5 ± 0.2 °C water bath incubator in the inverted position (with grid side down). Place a heavy object over the bag and incubation rack to keep the bag submerged in the water.
- 5.4 Incubate undisturbed for 24 ± 2 hours.
- 5.5 After 24 ± 2 hours, remove the bag from the incubator. Fecal coliform cultures must be examined within 20 minutes after removing from incubator to avoid a change to the colony color.
- 5.6 Count all colonies exhibiting light or dark blue color, whether covering the entire colony, or only in part of the colony.
- 5.7 Petri dishes containing 20 to 60 fecal coliform colonies yield the most desirable accurate results.

6. CALCULATIONS

- 6.1 Report fecal coliform results as colonies per 100 mL sample. Compute the count, using membrane filters with 20 to 60 blue (sometimes greenish - blue) colonies and not more than 200 colonies of all types per membrane. Non-fecal colonies are gray, buff, or colorless and are not counted.
- 6.2 The general formula for calculating fecal coliform colonies / 100 mL of sample is:

# of Fecal Coliform Colonies Counted	X	100	=	F C Colonies
Volume in mL of Sample Filtered				100 mL

- 6.3 If one or more plates have 20 – 60 colonies, add the total number of colonies from only the plates in the 20 – 60 range, and divide by the total volume. Report as fecal coliforms (colony forming units, or cfu's) per 100 mL.

Example: 10 mL plate = 3
 25 mL plate = 23
 100 mL plate = 46

$$((23+46)/(25+100)) \times 100 = (69/125) \times 100 = 55 \text{ cfu's} / 100 \text{ mL}$$

6.4 If all the plates are both less than 20 colonies and greater than 60 colonies but fewer than 201 colonies, add the total number of colonies and divide by the total volume. Report as estimated per 100 mL.

Example: 10 mL plate = 7
25 mL plate = 61
100 mL plate = 91

$$((7+61+91)/(10+25+100)) \times 100 = (159/135) \times 100 = \text{Est. } 118 \text{ cfu's / 100 mL}$$

6.5 If all the plates have no colonies, divide 1 colony by all the sample volumes. Report as estimated less than calculated value per 100 mL.

Example: 1 mL plate = 0
4 mL plate = 0
50 mL plate = 0

$$(1/55) \times 100 = \text{est. } < 2 \text{ cfu / 100 mL}$$

6.6 If all the plates have greater than 60 countable colonies, calculate using the smallest sample volume. Report as greater than per 100 mL.

Example: 10 mL plate = 83
25 mL plate = TNTC
100 mL plate = TNTC

$$(83/10) \times 100 = > 830 \text{ cfu's / 100 mL}$$

6.7 If all plates are considered too numerous to count, use 200 colonies as the basis of calculation with the smallest filtration volume. Report as greater than per 100 mL.

Example: 1 mL plate = TNTC
4 mL plate = TNTC
50 mL plate = TNTC

$$(200/1) \times 100 = > 20,000 \text{ cfu's / 100 mL}$$

IX. QUALITY CONTROL

1. ACCURACY

The blank membrane filter is prepared and incubated with every analysis as a demonstration of our aseptic technique. It is a check not only of our reagents but also of the sterilization of all glassware and apparatus.

2. PRECISION

2.1 Duplicates are performed daily on final effluent samples.

2.2 Duplicate measures are entered into the laboratory QA software program Control Charts Pro. A standard deviation and an arithmetic mean of the current duplicate measurements and the previous 30 duplicate measurements are calculated. A control limit is then set at ± 3 standard deviations of the mean. A warning limit is set at ± 2 standard deviations of the mean.

- 2.3 New control limits are established with each duplicate measurement as the calculation is based on a running minimum 30 data point average. The data is graphed using Shewart X-bar/Levey Jenings standard deviation scale mechanisms. The data is viewed weekly for the purpose of identifying problems or trends in the analysis.
- 2.4 Duplicate precision control charts are compiled, printed and filed in the Quality Assurance Control Chart Manual.
- 2.5 If duplicate measurements exceed the acceptable control limit for 3 consecutive runs, immediate actions are taken to correct the problem.

X. VALIDATION AND REPORTING

1. Fecal coliform results are reported to the nearest whole number. Significant figures are based on colony count.
2. Fecal coliform results are recorded in the laboratory fecal coliform database.
3. All fecal coliform results are checked by a second analyst before they are reported to assure their validity and to prevent transcription error.
4. If fecal coliform results are greater than 200 colonies/100 mL, the Operations Team is notified verbally immediately.
5. Fecal coliform results are entered daily into the operations database software program OPS32.

XI. CLEANING PROCEDURES

1. Glassware and plasticware are rinsed thoroughly with reagent grade water (REAGENTS V.6) and air dried.
2. Place glassware, filtering apparatus, sample bottle with aliquot of Sodium Thiosulfate solution (REAGENTS V.10) and buffer water (REAGENTS V.2) in the autoclave.
3. Fill autoclave to indicated level with deionized water.
4. Close autoclave door and set timer for 30 minutes.
5. When autoclave cycle is over and has cooled open the door and drain the water.
6. Wipe the counter and work area with a paper towel upon completion of the daily analysis.

XII. PREVENTATIVE MAINTENANCE PROCEDURES AND SCHEDULE

1. DAILY MAINTENANCE PROCEDURES:
 - 1.1 Check the sterilizer for proper amount of water. Use deionized water only. Check sterilizer thermometer temperature to ensure the sterilizer has reached a sterilization temperature of 121°C. If sterilizer did not reach 121°C and was set on the maximum setting, a service technician should be contacted.
 - 1.2 Check water bath thermometer temperature to ensure the water bath is at 44.5 + 0.2°C. If water bath is not at the operating temperature of 44.5°C, first check the water level and adjust if necessary. Use deionized water only. If the water is at the proper level and the temperature is not within 44.5 + 0.2°C, check the temperature set point. The set point temperature index on the dial pointer set at 64°C usually maintains 44.5°C with the microtrol switch in the LOW or No. 2 position.
 - 1.3 Inspect sterilizer door gasket for wear. Replace if necessary.
 - 1.4 Equipment operational parameters are checked daily, before analysis begins. The written record of this check is the Quality Assurance Check Benchbook.

XIII. POLLUTION PREVENTION

1. Whenever feasible, the Rogers Pollution Control Facility Laboratory personnel apply pollution prevention measures. These measures encompass any technique that reduces or eliminates the quantity or toxicity of waste at the point of generation.
2. The quantity of any chemical purchased is based on expected usage during its shelf life and disposal cost of unused material.
3. The Rogers Pollution Control Facility Laboratory personnel recognize that due to the long shelf life of the chemicals and/or chemical solutions used for the fecal coliform analysis, the stock chemicals are kept at a minimum quantity.
4. Whenever feasible, the least toxic and/or safest chemical is used.

XIV. WASTE MANAGEMENT

The EPA requires that laboratory waste management practices be conducted consistent with all applicable rules and regulations. The EPA urges laboratories to protect the air, water and land by minimizing and controlling all releases from hoods and bench operations, complying with the letter and spirit of any waste discharge permit and regulations, and complying with all solid and hazardous waste regulations. The Rogers Pollution Control Facility Laboratory complies with EPA regulations by disposing of all excess reagents, samples and method process wastes in an approved manner.

XV. REFERENCES

1. Standard Methods for the Examination of Water and Wastewater 9222 D-1997

Revision #5 04/21/00
Revision #6 09/23/03
Revision #7 01/28/08
Revision #8 02/22/11
Revision #9 05/16/14

Revision #9 includes minor changes to Buffered Water and 10% Sodium Thiosulfate solution preparation in V. REAGENTS section.

Sample hold time is extended to 8 hours (6 hour transport, 2 hours laboratory prep).
Reference is changed from SM 19th Edition to SM 9222 D-1997.

Revision #10 09/06/17

Revision 10 changes section VI , 6.5 to report estimated < 2 rather than just <2.

Effluent Flume Fecal Coliform Using IDEXX Colilert-18 and Quanti-Tray/2000, and Incubated at 44.5 +/- 0.2 °C

Date Sampled and Analyzed	Coll By	Sample ID	Collection Bottle	Time Collected	Time Incub	Date/Time Examined	On	Off	DF	# Sm Wells Positive	# Lg Wells Positive	MPN Table	MPN # / 100mL	Comments
			120 mL Plastic w/ Sodium Thiosulfate											
			120 mL Plastic w/ Sodium Thiosulfate											
			120 mL Plastic w/ Sodium Thiosulfate											
			120 mL Plastic w/ Sodium Thiosulfate											
			120 mL Plastic w/ Sodium Thiosulfate											
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			120 mL Plastic w/ Sodium Thiosulfate											

ROGERS POLLUTION CONTROL FACILITY
4300 RAINBOW ROAD
ROGERS, AR 72756-1440

58-1440

7020 1810 0000 3009 7161



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