Preliminary Project Discussion for Sewage Works Construction Projects

Background Information

Engineer/ Owner

Project Name: Alamo Sewer System 2020 CDBG

NPDES or SOP Number (if existing): TN0024988

A. Identification of parties
    a. Applicant – Town of Alamo, TN
    b. Permittee – Town of Alamo, TN
    c. Consulting Engineer – A2H, Inc.
    d. Funding Agencies (if applicable) – CDBG
    e. Entity to sign off on compliance with local codes (i.e. building inspector) – Town of Alamo – Junior Gorman (Water and Sewer Plant Operator)

B. Project Purpose and Objectives

Sewer Plant Upgrades:

- New 40’ dia. clarifier
- New surge basin, will reuse the existing 80’ dia. trickling filter structure.
- Cleaning and repairs to the existing grit removal system.

Sewer System Repairs:

- West Church Street CIPP (1,793 LF)
- South Burns / Koonce Street CIPP (1,200 LF)
- East Main Street CIPP (2,050 LF)
- Install 10 new water tight SMH lids.

C. Map of general service area
    a. Probable site and construction area

b. Adjacent properties
    - The property that the WWTP sits upon is bordered to the north by a 42 acre parcel that is owned by Albert & Oralene Lee. The property is surrounded to the east, west, and south by a 50 acre parcel owned by Craig Laman.

c. Significant waters of the State
    - The WWTP is adjacent to an unnamed tributary to Buck Creek.

d. Geological features
    - The area surrounding the WWTP is primarily row crop agriculture and relatively flat with an unnamed tributary to Buck Creek along the west side of the plant.

e. Property boundaries

- The Town of Alamo owns both parcels 23.02 and 2.00 shown in the aerial above.

D. Existing Inflow and Infiltration
    - AADF = 0.409 MGD and ADDWF = 0.185 MGD, therefore the Annual I/I was determined to be 59.43% in the PER.

E. Influent characteristics
    a. Last 12 MORs (if applicable) – See attached
    b. Industrial dischargers – Primarily domestic strength discharge

F. System capacity
    a. Hydraulic
        i. Average Daily Dry Weather Flow – ADDWF
        - 0.185 MGD (Average of lowest 7 contiguous days average daily flow between May 2018 and April 2019.
        ii. Average Daily Flow – ADF
        - 0.409 MGD
        iii. Peak Flow

- 1.3 MGD

iv. Design Flow

- 0.40 MGD

b. Nutrient

i. Influent loads

- Average Daily Dry Weather Flow – ADDWF 0.185 MGD
- Average Daily Flow – ADF 0.409 MGD
- Design Flow – 0 .40 MGD

c. Treatment/ Conveyance

i. Accommodation of variability of loads Limited

G. Procurement methodology

a. Design-bid-build – Yes
b. Design build – No
c. Preselection of equipment/processes – No
d. Relationships of various agencies involved – Excellent
e. How and when ownership/access/easements will be transferred to wastewater operational entity – None required

H. Reliability class of components and electrical service

a. Operator certification level – Level 3
b. Manpower requirements – Adequate

I. Proposed project schedule

- December 2020 – March 2021 – Design.
- April 2021 – Submit plans and specs to ECD and TDEC.
- May 2021 – Receive approval to bid project.
- June 2021 – Bid project.
- July 2021 – October 2021 – Complete construction and project closeout.

J. Provide copy of PER if already prepared

- See attached.

A2H

ENGINEERS ARCHITECTS PLANNERS

2020 CDBG SEWER PROJECT TECHNICAL APPLICATION

FOR

ALAMO, TENNESSEE

FEBRUARY, 2020

2/17/2020

Prepared By:
A2H, Inc.
3009 Davies Plantation Road
Lakeland, TN

2020 CDBG SEWER PROJECT TECHNICAL APPLICATION

Project Name: 2020 Sewer Infrastructure Repair for Alamo, TN

Applicant Name: Alamo, TN

E-mail: johnaveryemison@yahoo.com Phone: (731) 696-4514

Engineer Name: A2H, Inc.

E-mail: edwardh@a2h.com Phone: 901-372-0404

NPDES or SOP number: TN0024988 Expires: 07/31/2022

Project Type: ☐Treatment Plant Capacity ☒ Infiltration/Inflow ☐ Lift Station Capacity

☐ Failing Septic Tanks ☒ Quality and Operations

Complete the following information for existing and under-construction facilities which relate to the proposed project for MAY 2018 - APRIL 2019.

This technical application should be sealed by a professional engineer, licensed in Tennessee.

1. **Detailed project description, including condition of existing facilities:**
   In order to address the City's inflow and infiltration (I/I) problems and aging infrastructure the City of Alamo will complete a combination of collection system and treatment plant improvements. The total calculated I/I for the entire system is approximately 59.81%
   Project No. 1:
   A: New Clarifier: Alamo Sewage Treatment Plant. Alamo's treatment plant is an oxidation ditch with a hydraulic treatment capacity of 0.4 MGD. The plant has one 40 foot diameter clarifier, chlorine contact chamber, sludge digester, sludge drying beds, and gravity outfall line. The plant has been in continuous operation since 1987. The single clarifier has been maintained well since operation began, but the rotating assembly is beginning to break down. Since there is no backup to the clarifier, the City has been reluctant to take it out of serve for needed repairs because of concern of discharge limit violations. The installation of a new clarifier would provide the necessary backup component needed so the original clarifier can be taken out of service to be repaired. Once repaired the clarifier would be placed back in service and operated in parallel with the new clarifier or operated in rotation with the new clarifier.
   B. New Surge Basin: Alamo has a significant inflow/infiltration problem. In an effort to reduce the large inflows during wet weather, the City is applying with this application to fund two methods to help with the I/I issues. The City has a trickling filter that is out of service and was used in conjunction with an Imhoff Tank treatment system prior to the current oxidation ditch treatment system. The trickling filter structure is 80 feet in diameter and has a side wall height of 8 feet with a holding capacity of 301,000 gallons. With some re-piping, the trickling

filter could be modified and repurposed as surge basin to help reduce the large peak flows currently experienced at the oxidation ditch.
C. Repairs to existing Grit Removal System: The grit removal lift pump has seized up because of the accumulation of grit around the pump/impellor intake line. The removal of the accumulated grit can be accomplished by pressure washing and pumper truck to remove the grit build up. (See Attachment E at the end of this report "Alamo Wastewater Operation and Maintenance Inspection Report".

The proposed collection system improvements will consist of CCTV inspection of pipe segments, inspection of manholes, smoke testing and cured-in-place pipe repairs.

Project No. 2: 8" Cured-In-Place Pipe – West Church Street – SMH 44 to SMH 84.
Project No. 3: 8" Cured-In-Place Pipe – South Burns/Koonce Streets – SMH 60 to SMH 62 and SMH 60 to SMH 52.
Project No. 4: 8" Cured-In-Place Pipe – East Main Street – SMH 143 to SMH 153.

2. **Description of project location:**
The four projects described in section 1 above are shown in:
a. Attachment A: Project Map

3. **If this is a wastewater treatment project that will require a permit modification, has a preliminary project discussion been held with TDEC?** Not Required

4. **Detailed project cost including proposed funding sources:**

A. Sewer Plant Upgrades

Item No	Description	Quantity	Unit	Unit Price	Amount
	Project No. 1				
A.	Repairs to Existing Grit Removal System	1	LS	$5,000.00	$5,000.00
B.	Installation of New Primary Clarifier				
	i. Poured In Place Concrete	105	CY	$715.00	$75,075.00
	ii. Rotating Assembly	1	EA	$112,500.00	$112,500.00
	iii. Miscellaneous Piping	1	LS	$10,000.00	$10,000.00
	iv. Electrical Service	1	LS	$10,000.00	$10,000.00
	v. Excavation	1235	CY	$3.00	$3,705.00
C.	Conversion of Trickling Filter to Surge Basin				
	i. Removal of Filter Media	375	CY	$3.50	$1,312.50
	ii. Removal of	1	LS	$5,000.00	$5,000.00

	Rotating Assembly				
	iii. Miscellaneous Piping	1	LS	$10,000.00	$10,000.00
	Subtotal				$232,592.50
	Construction Contingency (10%)				$23,260.50
	Total Construction - Sewer Plant				**$255,853.00**
B. Sewer System Repair					
1	**Project No. 2:** 8" Cured-In-Place-Pipe - West Church Street - SMH 44 to SMH 84	1793	LF	$32.00	$57,376.00
2	**Project No. 3:** 8" Cured-In-Place-Pipe - South Burns/Koonce Street -SMH 60 through SMH 62 and SMH 60 to SMH 52	1200	LF	$32.00	$38,400.00
3	**Project No. 4:** 8" Cured-In-Place-Pipe - East Main Street - SMH 143 through SMH 153	2050	LF	$32.00	$65,600.00
4	Install Water Tight Lid of Selected SMH's	10	EA	$500.00	$5,000.00
	Subtotal				$166,376.00
	Construction Contingency (10%)				$16,660.00
	Total Construction - Sewer Rehabilitation				**$183,036.00**
	Total Construction Cost				**$438,889.00**

Engineering and Inspection Fees and Grant Administration

Engineering Design Services				$38,300.00
Engineering (Other Than Design)				
1) Sewer Cleaning and Smoke Testing				$2,000.00

2) Video Inspection of Sewer Lines				$10,000.00
3) Civil Construction Administration				$4,000.00
4) TDEC Plans Review Fee				$250.00
Resident Construction Inspection Services				$30,000.00
Total of Engineering Services				**$84,550.00**
Grant Administration				$34,000.00
Environmental Survey				$2,000.00
Total of Grant Administration				**$36,000.00**
Total Project Cost				**$559,439.00**

*** Project funding through TNECD Community Development Block Grant and local funding**

5. **Project Schedule:**

a) Grant application submittal deadline 02/28/2020
b) Grant Award Notification 10/2020
c) Receive funding contract and notice to proceed from ECD 11/2020
d) Receive environmental clearance 12/2020
e) Begin Design process 01/2021
f) Apply for all applicable environmental permits necessary for the project 03/2021
g) Submit plans and specs to ECD, TDEC 04/2021
h) Receive approval to bid project 05/2021
i) Bid project 06/2021
j) Complete project and project closeout 10/2021

6. **Measurement*:**

a. ADDWF=Average of lowest 7 contiguous days average daily flow between MAY 2018 - APRIL 2019 (MGD): 0.185
b. AADF= Average Annual Daily influent Flow (MGD): 0.409
c. ATF= Annual Total influent Flow (MG): 137.573
d. Annual I/I = ((AADF-ADDWF)*365/ATF) (%): 59.430
e. NPDES or SOP Permitted Volumetric Load (MGD): 0.40
f. Number of Sanitary Sewer Overflows + Releases**: Dry 0 Wet 0

7. **Mapping**:

g. Is current sewer system map up to date? ☒ Yes ☐ No
h. Date of last revision: February 2020
i. Does the map include a strategic numbering system for lines and/or manholes?☒ Yes ☐ No If yes, ensure numbering system is shown on the PDF of the map.
j. Attachment B: PDF of the current sewer system map

8. **Planning/Repair**: Provide a brief description of selected items.

k. Does the utility:
    i. Locate I/I and Repair lines using a systemized method: ☒ Yes ☐ No
        Explain method: The City through its Public Works Department has identified three areas of town where high I&I issues have been a problem in the past. As a part of the funding request for the City, funds are requested to conduct a Sewer System Evaluation Survey (SSES) that would include smoke testing and video inspection in the three identified problem areas: West Church Street, South Burns/Koonce Streets and East Main at Nance Street.
        Have <u>permanent</u> metering devices throughout the system: ☐ Yes ☒ No
        AND/OR
        Track pump run times to determine effect of storm flow: ☒ Yes ☐ No
    ii. Install/Utilize software management to collect and analyze usage in the system:
        ☐ Yes ☒ No
        Name of software:
        Explanation of how software is used:
l. Will the proposed project:
    i. Locate I/I and Repair lines using a systemized method: ☒ Yes ☐ No
        Explain method: As described in section 7 of this report, the City through its engineer conduct a SSES to pin point the sewer lines needing repair in the three identified project areas.
    ii. Install <u>permanent</u> metering devices throughout the system: ☐ Yes ☒ No
        Provide a map of the proposed locations and meter types.
        AND/OR
        Track pump run times to determine effect of storm flow: ☒ Yes ☐ No
    iii. Install/Utilize software management to collect and analyze usage in the system:
        ☐ Yes ☒ No
        Name of software:

Explanation of how software will be used:

c. Attachment C: Map of existing or proposed meters and/or pump run time data (if applicable)

* For applicants without a treatment plant, report I/I values for receiving plant

** Dry = May-Oct 2018, Wet = Nov 2018-Apr 2019

9. **Problem being addressed (complete only sections a-e that apply to the proposed project):**

m. Treatment Plant Capacity

	Existing	Proposed
Permitted Design Capacity (MGD):		
Hydraulic Capacity (MGD):		
Organic Loading (lbs/day):		
Average Daily Loading (MGD):		
Peak Daily Loading (MGD):		

Existing Average Daily Loading/ Existing Hydraulic Capacity (%):

n. Infiltration/Inflow (I/I)

Annual I/I = ((AADF-ADDWF)*365/ATF) (%): 59.43

Annual I/I calculated in project location, if measured (%): Not available

8” Cured-In-Place Pipe – West Church Street – SMH 44 to SMH 84.
8” Cured-In-Place Pipe – South Burns/Koonce Streets – SMH 60 to SMH 62 and SMH 60 to SMH 52.
8” Cured-In-Place Pipe – East Main Street – SMH 143 to SMH 153.

o. Lift Station Capacity

Average daily pump run time (min):

Wet weather daily pump run time (min):

Wet weather daily run time/Average daily pump time:

p. Failing Septic Tanks

Number of Septic Tanks in Project Area:

Number of Failing Septic Tanks in Project Area:

Number of Failing Septic Tanks/ Number of Septic Tanks:

q. Quality and Operations

List the categories that best describe your project. Clearly describe how the proposed project will improve the conditions of the selected items, including if the applicant considers this project urgent, high, medium or low priority according to the following descriptions:

Urgent Priority:	Problems that are posing health risks now
High Priority:	Problems resulting in possible health risk if not corrected
Medium Priority:	Problems not posing a health risk but are improvements to the system
Low Priority:	Regular maintenance items or issues not affecting water quality

☐ Discharge of a pollutant of concern for which the receiving stream is impaired

☐ Immediate Threat - Existing facilities are experiencing operational problems due to deterioration of facilities – such problems have resulted degradation of water quality such that the health and wellbeing of customers are affected (Requires detailed and/or appropriate documentation demonstrating an immediate threat.)

☐ Addition of nutrient removal

☒ Existing facilities are experiencing operational problems due to deterioration of facilities – such problems have the potential to result in degradation of water quality such that the health and wellbeing of water customers may be affected. (Requires detailed documentation of problem.)

High Priority: A: New Clarifier: Alamo Sewage Treatment Plant. Alamo's treatment plant is an oxidation ditch with a hydraulic treatment capacity of 0.4 MGD. The plant has one 40 foot diameter clarifier, chlorine contact chamber, sludge digester, sludge drying beds, and gravity outfall line. The plant has been in continuous operation since 1987. The single clarifier has been maintained well since operation began, but the rotating assembly is beginning to break down. Since there is no backup to the clarifier, the City has been reluctant to take it out of serve for needed repairs because of concern of discharge limit violations. The installation of a new clarifier would provide the necessary backup component needed so the original clarifier can be taken out of service to be repaired. Once repaired the clarifier would be

placed back in service and operated in parallel with the new clarifier or operated in rotation with the new clarifier.
B. New Surge Basin: Alamo has a significant inflow/infiltration problem. In an effort to reduce the large inflows during wet weather, the City is applying with this application to fund two methods to help with the I/I issues. The City has a trickling filter that is out of service and was used in conjunction with an Imhoff Tank treatment system prior to the current oxidation ditch treatment system. The trickling filter structure is 80 feet in diameter and has a side wall height of 8 feet with a holding capacity of 301,000 gallons. With some re-piping, the trickling filter could be modified and repurposed as surge basin to help reduce the large peak flows currently experienced at the oxidation ditch.
C. Repairs to existing Grit Removal System: The grit removal lift pump has seized up because of the accumulation of grit around the pump/impellor intake line. The removal of the accumulated grit can be accomplished by pressure washing and pumper truck to remove the grit build up.

☐ Addition of redundancy

☐ Addition of standby power

☐ Upgrading of older facilities not posing a current risk

☐ Addition of facilities not affecting stream quality – meets anti-degradation requirements

☐ Regular maintenance items – replacement of equipment

☐ Other

Technical Application Checklist:

☒ Technical application using format above, sealed by a professional engineer licensed in Tennessee

☒ Attachment A: Project Map

☒ Attachment B: PDF of the current sewer system map with numbering system visible

☐ Attachment C: Map of existing or proposed meters and/or pump run time data (if applicable)

☐ Attachment D: Engineer’s Opinion of Probable Cost for the proposed project

☒ Attachment E: Alamo Wastewater Operation and Maintenance inspection Report

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION

DIVISION OF WATER POLLUTION CONTROL

REPORT OF OPERATION ON WASTEWATER TREATMENT

PLANT: Town of Alamo - TN0024988

COUNTY: Crockett

MONTH OF: March YEAR: 2019

DATE	RAINFALL (0.1")	INFLUENT FLOW (MGD)	EFFLUENT FLOW (MGD)	TEMPERATURE EFFLUENT C°	BYPASS OCCURENCES	OVERFLOW				5 DAY CBOD / BOD						AMMONIA NITROGEN						TOTAL NITROGEN				TOTAL PHOSPHORUS				SUSPENDED SOLIDS						SETTLEABLE SOLIDS		DISSOLVED OXYGEN		pH		FINAL EFFLUENT			
						SSO DRY	SSO WET WEATHER RELEASE DRY	SSO WET WEATHER RELEASE WET	BYPASS OCCURENCES	INFLUENT (mg/L)	EFFLUENT (mg/L)	WEEKLY AVERAGE	EFFLUENT (POUNDS)	PERCENT REMOVAL	WEEKLY AVERAGE (lbs)	INFLUENT (mg/L)	EFFLUENT (mg/L)	WEEKLY AVERAGE (mg/L)	EFFLUENT (POUNDS)	PERCENT REMOVAL	WEEKLY AVERAGE (lbs)	EFFLUENT (mg/L)	WEEKLY AVERAGE (mg/L)	EFFLUENT (POUNDS)	WEEKLY AVERAGE (lbs)	EFFLUENT (mg/L)	WEEKLY AVERAGE	EFFLUENT (POUNDS)	WEEKLY AVERAGE (lbs)	INFLUENT (mg/L)	EFFLUENT (mg/L)	WEEKLY AVERAGE (mg/L)	EFFLUENT (POUNDS)	PERCENT REMOVAL	WEEKLY AVERAGE (lbs)	INFLUENT (mg/L)	EFFLUENT (mg/L)	INFLUENT (mg/L)	EFFLUENT (mg/L)	INFLUENT (STANDARD UNITS)	EFFLUENT (STANDARD UNITS)	TOTAL CHLORINE RESIDUAL (mg/L)	GALLONS OF CHLORINE	POUNDS OF SULFUR DIOXIDE	E-COLI
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46
1	0.01	0.450	0.450		0	0	0	0	0																														9.70					
2	0.31	0.440	0.456		0	0	0	0	0																																			
3	0.20	0.800	0.833		0	0	0	0	0																																			
4		0.510	0.524		0	0	0	0	0																												4.0	< 0.10		10.40	7.53	7.61				
5		0.400	0.381		0	0	0	0	0	110	< 4.00		12.71	96.4		16.50	< 0.20		0.64	98.8																	6.0	< 0.10		10.34	7.57	7.78	0.03			
6		0.400	0.406		0	0	0	0	0	130	< 4.00		13.54	96.9		21.50	< 0.20		0.68	99.1											108.0	3.0		10.2	97.2		19.0	< 0.10		12.96	7.60	7.80	0.00			
7	0.04	0.380	0.407		0	0	0	0	0	131	< 4.00		13.58	96.9		22.80	< 0.20		0.68	99.1						0.80		2.72		58.0	< 1.0		3.4	98.3		3.5	< 0.10		12.59	7.50	7.70	0.04			
8	0.18	0.510	0.434		0	0	0	0	0																					32.0	1.0		3.6	96.9		4.5	< 0.10		11.82	7.20	7.50	0.08			
9	0.51	0.980	1.004		0	0	0	0	0			4.00			13.3			0.20			0.67						0.80		2.72				1.6			4.6								
10		0.580	0.590		0	0	0	0	0																																			
11		0.480	0.492		0	0	0	0	0																												8.0	< 0.10		10.91	7.20	7.30	0.04			
12		0.450	0.453		0	0	0	0	0	185	< 4.00		15.11	97.8		17.60	< 0.20		0.76	98.9											152.0	1.0		4.1	99.3		4.0	< 0.10		12.02	7.20	7.50	0.05			2419.0
13		0.850	0.892		0	0	0	0	0	92	< 4.00		29.76	95.7		19.54	< 0.20		1.49	99.0											80.0	6.0		44.6	92.5		4.0	< 0.10		11.62	7.00	6.69	0.06			< 2420.0
14	TRAC	1.040	1.091		0	0	0	0	0	70	< 4.00		36.40	94.3		18.10	< 0.20		1.82	98.9						0.39		0.39		22.0	1.0		9.0	95.5		8.5	< 0.10		8.48	7.19	7.25	0.16			< 2420.0
15		0.250	0.247		0	0	0	0	0																												5.0	< 0.10		9.88	7.02	7.00	0.00			
16		0.770	0.770		0	0	0	0	0			4.00			22.4			0.20			1.33						0.39		0.39				2.6			19.2								
17		0.410	0.412		0	0	0	0	0																																			
18		0.390	0.379		0	0	0	0	0							18.10	< 0.20		0.63	98.9																4.0	< 0.10		11.25	7.44	7.26	0.10			
19		0.251	0.246		0	0	0	0	0	76	< 4.00		8.21	94.7		14.00	< 0.20		0.41	98.6											86.0	1.0		3.2	98.8		3.5	< 0.10		6.17	7.28	7.50	0.90			648.0
20	0.08	0.252	0.248		0	0	0	0	0	73	< 4.00		8.27	94.5		18.60	< 0.20		0.41	98.9											27.0	10.0		20.5	63.0		3.0	< 0.10		6.00	7.08	7.24	1.23			
21		0.252	0.249		0	0	0	0	0	97	< 4.00		8.31	95.9		20.40	< 0.20		0.42	99.0						1.65		3.43		65.0	6.0		12.5	90.8		4.5	< 0.10		10.70	7.63	7.80	0.45			< 1.0
22		0.252	0.249		0	0	0	0	0																												4.5	< 0.10		11.16	7.20	7.25	0.83			
23		0.252	0.249		0	0	0	0	0			4.00			8.3			0.20			0.46						1.65		3.43				5.6			12.0								
24	0.25	0.253	0.250		0	0	0	0	0																																			
25		0.920	0.809		0	0	0	0	0																												12.0	< 0.10		10.50	7.77	7.67	0.04			
26		0.340	0.335		0	0	0	0	0	133	< 4.00		11.18	97.0		0.22	< 0.20		0.56	7.8											51.0	< 1.0		2.8	98.0		7.0	< 0.10		6.04	7.42	7.32				< 1.0
27		0.550	0.305		0	0	0	0	0	196	< 4.00		10.17	98.0		30.80	< 0.20		0.51	99.4											51.0	< 1.0		2.5	98.0		50.0	< 0.10		10.06	7.16	7.13				17.0
28		0.310	0.260		0	0	0	0	0	178	< 4.00		8.67	97.8		0.31	0.31		0.67	0.0						2.86		6.20		315.0	< 1.0		2.2	99.7		3.0	< 0.10		11.31	7.45	7.41	0.03	5	2	79.0
29		0.330	0.350		0	0	0	0	0																												12.0	< 0.10		10.44	7.00	6.92	0.01	1	0	
30	0.22	0.310	0.347		0	0	0	0	0			4.00			10.0			0.23			0.53											1.0			0.0						0.01	1	0	
31		0.320	0.345		0	0	0	0	0																																	0.02	0	1	
TOTAL	1.80	14.682	14.463		0	0	0	0	0	###	48.00		175.91			218.47	2.71		9.66			0.00		0.00		5.70		12.73		1047.0	33.0		118.6			170.0	2.00	0.0	214.35	146.44	147.63	4.08	6	3	8005.0
AVERAGE	0.20	0.474	0.467							123	4.00		14.66	96.7		16.81	0.21		0.74	98.8		0.00		0.00		1.42		3.18		87.3	2.8		9.9	96.8		8.5	0.10	0.0	10.21	7.32	7.38	0.21	2	1	102.7
MAXIMUM	0.51	1.040	1.091							196	4.00	4.00	36.40	98.0	22.4	30.80	0.31	0.23	1.82	99.4	1.33	0.00	0.00	0.00	0.00	2.86	1.65	6.20	3.43	315.0	10.0	5.6	44.6	99.7	19.2	50.0	0.10	0.0	12.96	7.77	7.80	1.23	5	2	2420.0
MINIMUM	0.01	0.250	0.246							70	4.00		8.21	94.3		0.22	0.20		0.41	0.0		0.00		0.00		0.39		0.39		22.0	1.0		2.2	63.0		3.0	0.10	0.0	6.00	7.00	6.69	0.00	0	0	1.0

REMARKS

CERTIFIED OPERATOR

John A. Gorman
PRINT

SIGNATUIRE

GRADE 3

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION

DIVISION OF WATER POLLUTION CONTROL

REPORT OF OPERATION ON WASTEWATER TREATMENT

PLANT Town of Alamo - TN0024988

COUNTY Crockett

MONTH OF April YEAR 2019

DATE	RAINFALL (0.1")	INFLUENT FLOW (MGD)	EFFLUENT FLOW (MGD)	TEMPERATURE EFFLUENT C°	BYPASS OCCURENCES	OVERFLOW				5 DAY CBOD / BOD						AMMONIA NITROGEN					
						SSO DRY	SSO WET	RELEASE DRY	RELEASE WET	INFLUENT (mg/L)	EFFLUENT (mg/L)		WEEKLY AVERAGE	EFFLUENT (POUNDS)	PERCENT REMOVAL	WEEKLY AVERAGE (lbs)	INFLUENT (mg/L)	EFFLUENT (mg/L)		WEEKLY AVERAGE (mg/L)	EFFLUENT (POUNDS)	PERCENT REMOVAL	WEEKLY AVERAGE (lbs)
1	2	3	4	5	6	7	8	9	10	11	12		13	14	15	16	17	18		19	20	21	22
1		0.260	0.260		0	0	0	0	0														
2		0.270	0.297		0	0	0	0	0	106	<	4.00		9.91	96.2		27.50	<	2.00		4.95	92.7	
3		0.310	0.309		0	0	0	0	0	163	<	4.00		10.31	97.5		26.90		0.22		0.57	99.2	
4	0.68	0.650	0.693		0	0	0	0	0	131	<	4.00		23.12	96.9		24.90		0.80		4.62	96.8	
5		0.370	0.418		0	0	0	0	0														
6	0.50	0.430	0.460		0	0	0	0	0				4.00			96.8				1.00			3.38
7	2.01	1.220	1.279		0	0	0	0	0														
8		0.970	0.836		0	0	0	0	0														
9		0.560	0.533		0	0	0	0	0	38	<	4.00		17.78	89.5		6.98	<	0.20		0.89	97.1	
10		0.440	0.455		0	0	0	0	0	64	<	4.00		15.18	93.8		12.50	<	0.20		0.76	98.4	
11	0.46	0.600	0.606		0	0	0	0	0	109	<	4.00		20.22	96.3		13.70	<	0.20		1.01	98.5	
12	trace	0.440	0.389		0	0	0	0	0														
13	2.07	1.000	0.878		0	0	0	0	0				4.00			93.2				0.20			0.88
14	0.07	1.200	1.278		0	0	0	0	0														
15		0.610	0.525		0	0	0	0	0														
16		0.510	0.514		0	0	0	0	0	45	<	4.00		17.15	91.1			<	0.20		0.86		
17	0.02	0.480	0.464		0	0	0	0	0	75	<	4.00		15.48	94.7			<	0.20		0.77		
18	0.61	0.900	0.791		0	0	0	0	0	118	<	4.00		26.39	96.6				0.39		2.58		
19	0.82	1.200	1.354		0	0	0	0	0														
20		0.810	0.833		0	0	0	0	0				4.00			94.1				0.26			1.40
21		0.580	0.590		0	0	0	0	0														
22		0.460	0.380		0	0	0	0	0														
23		0.450	0.390		0	0	0	0	0	89	<	4.00		13.01	95.5			<	0.20		0.65		
24		0.420	0.410		0	0	0	0	0	105	<	4.00		13.68	96.2			<	0.20		0.68		
25	0.08	0.380	0.403		0	0	0	0	0	156	<	4.00		13.44	97.4				0.38		1.28		
26		0.380	0.310		0	0	0	0	0														
27		0.269	0.307		0	0	0	0	0				4.00			96.3							2.61
28		0.320	0.317		0	0	0	0	0														
29		0.360	0.299		0	0	0	0	0														
30		0.330	0.335		0	0	0	0	0	127	<	4.00			96.9			<	2.00		0.56		
31																							0.56
TOTAL	7.32	17.179	16.913		0	0	0	0	0	1326		52.00		195.66			112.48		7.19		20.19		
AVERAGE	0.73	0.573	0.564							102		4.00		16.30	96.1		18.75		0.55		1.55	97.0	
MAXIMUM	2.07	1.220	1.354							163		4.00	4.00	26.39	97.5	96.8	27.50		2.00	1.00	4.95	99.2	3.38
MINIMUM	0.02	0.260	0.260							38		4.00		9.91	89.5		6.98		0.20		0.56	92.7	

DATE	TOTAL NITROGEN					TOTAL PHOSPHORUS					SUSPENDED SOLIDS						SETTLEABLE SOLIDS		DISSOLVED OXYGEN		pH		FINAL EFFLUENT			
	EFFLUENT (mg/L)	WEEKLY AVERAGE (mg/L)	EFFLUENT (POUNDS)	WEEKLY AVERAGE (lbs)		EFFLUENT (mg/L)	WEEKLY AVERAGE	EFFLUENT (POUNDS)	WEEKLY AVERAGE (lbs)		INFLUENT (mg/L)	EFFLUENT (mg/L)	WEEKLY AVERAGE (mg/L)	EFFLUENT (POUNDS)	PERCENT REMOVAL	WEEKLY AVERAGE (lbs)	INFLUENT (mg/L)	EFFLUENT (mg/L)	INFLUENT (mg/L)	EFFLUENT (mg/L)	INFLUENT (STANDARD UNITS)	EFFLUENT (STANDARD UNITS)	TOTAL CHLORINE RESIDUAL (mg/L)	GALLONS OF CHLORINE	POUNDS OF SULFUR DIOXIDE	E-COLI
1	23	24	25	26		27	28	29	30		31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46
1																	32.0	< 1.00		11.57	7.19	7.15	0.01	3.3	0.1	
2											24.0	1.0		2.5	95.8		2.5	< 1.0.		11.46	7.26	7.27	0.02	0.3	0.4	275
3											218.0	3.0		7.7	98.6		13.0	1.00		10.26	6.97	6.86		0.3	0.4	> 2420.0
4						1.93		11.15			302.0	3.0		17.3	99.0		4.0	< 1.00		10.21	7.29	7.31		0.2	0.2	1.0
5																	2.0	1.00		10.49	7.00	6.95	0.02	0.3	0.1	
6													2.3			97.8							0.01	0.3	0.1	
7																							0.03	2.3	0.8	
8																				9.92	7.00	7.00		2.7	0.8	
9											14.0	< 1.0		4.4	92.9		2.0	< 0.10		8.57	7.26	7.25	< 0.01	3.9	0.0	49.0
10											62.0	< 1.0		3.8	100.0		4.0	< 0.50		7.80	7.45	7.23	< 0.01	3.2	0.2	38.0
11											150.0	< 1.0		5.1	99.3		2.0	< 0.10		8.64	7.55	7.66	< 0.01	0.1	0.5	49.0
12																	10.0	< 0.10		8.29	7.02	6.92	< 0.01	0.9	1.3	
13													1.0			99.9	1.0	< 0.10					< 0.01	2.4	0.6	
14																								3.1	0.7	
15																	4.0	< 0.10		8.23	7.00	6.94	< 0.01	4.3	0.8	
16											28.0	< 1.0		4.3	96.4		2.0	< 0.10		8.48	7.24	7.16	< 0.01	2.1	1.1	28.0
17											68.0	3.0		11.6	95.6		4.0	< 0.10		8.48	6.72	6.83	< 0.01	2.9	0.1	1553.0
18						1.39		9.17			50.0	< 1.0		6.6	98.0		10.0	< 1.00		8.48	7.28	7.25	0.01	0.0	0.2	46.0
19																	2.0	0.10		8.80	7.03	7.08	0.01	0.0	0.0	
20													1.6			96.6								0.0	0.0	
21																								0.4	0.2	
22																	4.0	< 0.10		7.82	7.15	7.04	< 0.01	3.1	0.2	
23											36.0	< 1.0		3.3	97.2		5.0	< 0.10		8.92	7.44	7.77	0.02	2.8	0.3	1986.0
24											16.0	< 1.0		3.4	93.8		14.0	< 0.10		8.54	6.90	6.83	< 0.01	5.1	0.0	1413.0
25						1.79		6.02			20.0	< 1.0		3.4	95.0		28.0	< 0.10		8.57	7.08	7.05	q 0.01	0.0	0.1	5.0
26																	2.0	< 0.10		8.96	7.06	7.11	< 0.01	2.4	0.1	
27													1.0			95.3								2.0	0.1	
28																								4.7	0.3	
29																	5.0	< 0.10		8.81	7.19	7.06	0.02	1.7	0.0	
30											64.0	1.0		2.8	98.4		12.0	< 0.10		8.57	7.09	7.62	0.00	3.7	0.2	> 2420.0
31																										
TOTAL	0.00		0.00			5.11		26.34			1052.0	19.0		76.2			164.5	7.00	0.0	199.87	157.17	157.34	0.27	59	10	10283.0
AVERAGE	0.00		0.00			1.70		8.78			80.9	1.5		5.9	98.2		7.5	0.33	0.0	9.09	7.14	7.15	0.01	2	0	133.1
MAXIMUM	0.00	0.00	0.00	0.00		1.93	0.00	11.15	0.00		302.0	3.0	2.3	17.3	100.0	99.9	32.0	1.00	0.0	11.57	7.55	7.77	0.03	5	1	2420.0
MINIMUM	0.00		0.00			1.39		6.02			14.0	1.0		2.5	92.9		1.0	0.10	0.0	7.80	6.72	6.83	0.00	0	0	1.0

REMARKS

CERTIFIED OPERATOR

John A. Gorman
PRINT

SIGNATURE

GRADE 3

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION

DIVISION OF WATER POLLUTION CONTROL

REPORT OF OPERATION ON WASTEWATER TREATMENT

PLANT Town of Alamo - TN0024988

COUNTY Crockett

MONTH OF May YEAR 2019

DATE	RAINFALL (0.1")	INFLUENT FLOW (MGD)	EFFLUENT FLOW (MGD)	TEMPERATURE EFFLUENT C°	BYPASS OCCURENCES	OVERFLOW				5 DAY CBOD / BOD						AMMONIA NITROGEN						TOTAL NITROGEN						TOTAL PHOSPHORUS						SUSPENDED SOLIDS						SETTLEABLE SOLIDS		DISSOLVED OXYGEN		pH		FINAL EFFLUENT				
						SSO DRY	SSO WET	RELEASE DRY	RELEASE WET	INFLUENT (mg/L)	EFFLUENT (mg/L)	WEEKLY AVERAGE	EFFLUENT (POUNDS)	PERCENT REMOVAL	WEEKLY AVERAGE (lbs)	INFLUENT (mg/L)	EFFLUENT (mg/L)	WEEKLY AVERAGE (mg/L)	EFFLUENT (POUNDS)	PERCENT REMOVAL	WEEKLY AVERAGE (lbs)	EFFLUENT (mg/L)	WEEKLY AVERAGE (mg/L)	EFFLUENT (POUNDS)	WEEKLY AVERAGE (lbs)	EFFLUENT (mg/L)	WEEKLY AVERAGE	EFFLUENT (POUNDS)	WEEKLY AVERAGE (lbs)	INFLUENT (mg/L)	EFFLUENT (mg/L)	WEEKLY AVERAGE (mg/L)	EFFLUENT (POUNDS)	PERCENT REMOVAL	WEEKLY AVERAGE (lbs)	INFLUENT (mg/L)	EFFLUENT (mg/L)	INFLUENT (mg/L)	EFFLUENT (mg/L)	INFLUENT (STANDARD UNITS)	EFFLUENT (STANDARD UNITS)	TOTAL CHLORINE RESIDUAL	GALLONS OF CHLORINE	POUNDS OF SULFUR DIOXIDE	E-COLI
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46
1	0.09	0.330	0.331		0	0	0	0	0	165	< 4.00		11.04	97.6			0.75		2.08											86.0	< 1.0		2.8	98.8		12.0	< 1.00		8.55	6.95	7.32	0.00	3	1	2.0
2	0.63	0.470	0.418		0	0	0	0	0	172	< 4.00		13.94	97.7			0.41		1.44						2.93		10.21		94.0	1.0		3.5	98.9		3.0	< 0.01		8.67	6.80	7.46	0.02	1	0	4.0
3		0.340	0.341		0	0	0	0	0																											2.0	< 0.01		8.43	6+.90	6.88	0.02	3	1	
4		0.360	0.369		0	0	0	0	0			4.00			12.5			0.58			1.76						2.93		10.21			0.0		98.8								4	0	
5		0.320	0.327		0	0	0	0	0																																		3	0	
6		0.310	0.324		0	0	0	0	0																											21.0	< 0.01		8.76	7.29	7.40	0.00	3	0	
7		0.290	0.267		0	0	0	0	0	175	< 4.00		8.91	97.7			1.26		2.81											258.0	3.0		6.7	98.8		12.0	< 0.01		9.13	6.69	6.68	0.02	3	0	< 1.0
8	0.25	0..340	0.325		0	0	0	0	0	148	< 4.00		10.84	97.3			1.36		3.69											250.0	2.0		5.4	99.2		3.0	< 0.01		8.74	6.80	7.40	0.00	5	1	< 1.0
9	0.50	0.590	0.552		0	0	0	0	0	180	4.00		18.41	97.8			1.40		6.45						1.88		8.65		102.0	< 1.0		4.6	99.0		2.0	< 0.01		7.62	6.67	6.79	0.00	0	0	2.0
10	0.05	0.350	0.282		0	0	0	0	0																											16.0	< 0.01		8.24	6.85	7.24	0.00	2	0	
11	0.04	0.280	0.228		0	0	0	0	0			4.00			12.7			1.34			4.31						1.88		8.65			2.0		99.0								1	0	
12	0.18	0.360	0.285		0	0	0	0	0																																		2	0	
13		0.330	0.343		0	0	0	0	0																											1.0	< 0.01		8.88	6.84	6.93	0.00	3	0	
14		0.300	0.259		0	0	0	0	0	112	< 4.00		8.64	96.4			< 2.00		4.32											102.0	< 0.1		0.2	99.9		2.0	< 0.01		9.22	6.87	6.93	0.02	2	0	< 1.0
15	0.31	0.470	0.485		0	0	0	0	0	152	< 4.00		16.18	97.4			0.41		1.67											98.0	< 0.1		0.4	99.9		11.0	< 0.01		8.67	6.96	6.82	0.00	4	0	3.0
16		0.300	0.313		0	0	0	0	0	121	< 4.00		10.44	96.7			0.29		0.75						1.28		3.34		116.0	< 0.1		0.3	99.9		2.0	0.01		8.27	6.82	6.92	0.00	0	0	< 1.0
17		0.310	0.274		0	0	0	0	0																											1.0	< 0.01		8.34	6.95	6.88	0.00	3	0	
18	0.70	0.500	0.415		0	0	0	0	0			4.00			11.8			0.88			2.24						1.28		1.28			0.0		0.3								3	0	
19	0.05	0.440	0.448		0	0	0	0	0																																		3	1	
20		0.340	0.293		0	0	0	0	0																											5.0	< 0.01		8.44	7.22	7.34	0.01	3	0	
21	0.03	0.300	0.310		0	0	0	0	0	74	4.00		10.34	94.6			1.43		3.70											68.0	< 0.1		0.3	99.9		5.0	< 0.01		8.02	6.76	6.75	0.02	3	0	23.0
22		0.310	0.322		0	0	0	0	0	100	6.00		16.11	94.0			1.05		2.82											34.0	6.0		16.1	82.4		19.0	< 0.01		7.92	6.99	7.29	0.00	2	1	4.0
23		0.300	0.260							124	4.00		8.67	96.8			3.16		6.85						0.72		1.56		54.0	5.0		10.8	90.7		17.0	< 0.01		8.14	6.53	6.55	0.00	1	0	23.0
24		0.280	0.242		0	0	0	0	0																											17.0	< 0.01		7.44	6.82	7.20	0.02	3	0	
25		0.260	0.214		0	0	0	0	0			4.66			11.5			1.88			4.30						0.72		1.56			3.7		5.4								3	0	
26		0.260	0.275		0	0	0	0	0																																		1	0	
27		0.300	0.318		0	0	0	0	0																											5.0	< 0.01		7.16	6.98	7.33	0.00	4	0	
28		0.270	0.266		0	0	0	0	0																											3.0	< 0.01		6.67	6.85	6.92	0.01	2	0	
29	0.11	0.290	0.287		0	0	0	0	0	81	96.00		229.78	-18.5			4.64		11.11											114.0	0.0		0.0	100.0		3.0	< 0.01		6.80	6.89	6.86	0.01	2	0	5.0
30	0.05	0.290	0.307		0	0	0	0	0	199	7.00		17.92	96.5			7.32		18.74						1.24		3.17		32.0	1.0		2.6	96.9		15.0	< 0.01		7.17	6.80	6.85		3	3	7.0
31		0.260	0.193		0	0	0	0	0	211	7.00		11.27	96.7			5.85		9.42							1.24		3.17			1.0			1.6	23.0	< 0.01		7.33	6.79	6.82	0.00	3	3	< 1.0
TOTAL	2.99	10.110	9.873		0	0	0	0	0	2014	156.00		392.51			0.00	31.34		75.83			0.00		0.00		8.05		26.95		1442.0	22.4		58.1			200.0	1.22	0.0	186.61	151.12	161.56	0.15	77	11	78.0
AVERAGE	0.23	0.337	0.318							144	11.14		28.04	92.3		0.00	2.24		5.42	0.0		0.00		0.00		1.61		5.39		103.0	1.6		4.1	98.4		8.7	0.05	0.0	8.11	6.87	7.02	0.01	2	0	2.9
MAXIMUM	0.70	0.590	0.552							211	96.00	4.66	229.78	97.8	12.7	0.00	7.32	1.88	18.74	0.0	4.31	0.00	0.00	0.00	0.00	2.93	2.93	10.21	10.21	258.0	6.0	3.7	16.1	100.0	99.0	23.0	1.00	0.0	9.22	7.29	7.46	0.02	5	3	23.0
MINIMUM	0.03	0.260	0.193							74	4.00		8.64	-18.5		0.00	0.29		0.75	0.0		0.00		0.00		0.72		1.56		32.0	0.0		0.0	82.4		1.0	0.01	0.0	6.67	6.53	6.55	0.00	0	0	1.0

REMARKS

CERTIFIED OPERATOR

John A. Gorman
PRINT

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GRADE 3

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION

DIVISION OF WATER POLLUTION CONTROL

REPORT OF OPERATION ON WASTEWATER TREATMENT

PLANT Town of Alamo - TN0024988

COUNTY Crockett

MONTH OF June YEAR 2019

DATE	RAINFALL (0.1")	INFLUENT FLOW (MGD)	EFFLUENT FLOW (MGD)	TEMPERATURE EFFLUENT C°	BYPASS OCCURENCES	OVERFLOW				5 DAY CBOD / BOD						AMMONIA NITROGEN						TOTAL NITROGEN				TOTAL PHOSPHORUS				SUSPENDED SOLIDS						SETTLEABLE SOLIDS		DISSOLVED OXYGEN		pH		FINAL EFFLUENT			
						SSO DRY	SSO WET	RELEASE DRY	RELEASE WET	INFLUENT (mg/L)	EFFLUENT (mg/L)	WEEKLY AVERAGE (mg/L)	EFFLUENT (POUNDS)	PERCENT REMOVAL	WEEKLY AVERAGE (lbs)	INFLUENT (mg/L)	EFFLUENT (mg/L)	WEEKLY AVERAGE (mg/L)	EFFLUENT (POUNDS)	PERCENT REMOVAL	WEEKLY AVERAGE (lbs)	EFFLUENT (mg/L)	WEEKLY AVERAGE (mg/L)	EFFLUENT (POUNDS)	WEEKLY AVERAGE (lbs)	EFFLUENT (mg/L)	WEEKLY AVERAGE	EFFLUENT (POUNDS)	WEEKLY AVERAGE (lbs)	INFLUENT (mg/L)	EFFLUENT (mg/L)	WEEKLY AVERAGE (mg/L)	EFFLUENT (POUNDS)	PERCENT REMOVAL	WEEKLY AVERAGE (lbs)	INFLUENT (mg/L)	EFFLUENT (mg/L)	INFLUENT (mg/L)	EFFLUENT (mg/L)	INFLUENT (STANDARD UNITS)	EFFLUENT (STANDARD UNITS)	TOTAL CHLORINE RESIDUAL (mg/L)	GALLONS OF CHLORINE	POUNDS OF SULFUR DIOXIDE	E-COLI
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46
1		0.260	0.197		0	0	0	0	0																																	0.02	3	2	
2		0.260	0.206		0	0	0	0	0																																	0.00	3	2	
3		0.280	0.287		0	0	0	0	0																											2.0	< 0.01		7.28	6.85	6.88	0.02	3	2	
4	0.06	0.290	0.292		0	0	0	0	0	125	7.00		17.05	94.4			11.70		28.49											110.0	3.0		7.3	97.3		4.0	< 0.01		7.30	7.01	7.03	0.02	2	3	16.0
5		0.280	0.293		0	0	0	0	0	792	6.00		14.66	99.2		25.80	11.60		28.35	55.0										112.0	12.0		29.3	89.3		4.0	< 0.01		6.89	6.89	6.83	0.02	1	1	9.0
6	0.85	0.510	0.521		0	0	0	0	0	146	< 4.00		17.38	97.3		23.00	11.20		48.67	51.3						2.88		12.51		112.0	0.0		0.0	100.0		20.0	< 0.01		7.20	6.95	6.85	0.01	1	1	613.0
7	0.03	0.410	0.345		0	0	0	0	0																																	1	1	
8		0.290	0.225		0	0	0	0	0			5.60			16.4			11.50			34.50						2.88		12.51			5.0			95.5	0.5	0.01		7.42	6.66	7.15	0.02	1	1	
9	0.92	0.470	0.396		0	0	0	0	0																																	1	1	
10		0.300	0.217		0	0	0	0	0																														6.72	6.95	6.78	0.01	2	2	
11		0.260	0.285		0	0	0	0	0	199	5.00		11.88	97.5		17.30	0.34		0.81	98.0										48.0	7.0		16.6	85.4		4.0	0.01		6.73	6.87	6.59	0.01	3	3	> 2420.0
12		0.280	0.276		0	0	0	0	0	122	12.00		27.62	90.2		17.70	0.39		0.89	97.8										158.0	30.0		69.1	81.0		4.0	0.20		7.10	6.36	6.47	0.02	3	3	2419.0
13		0.270	0.254		0	0	0	0	0	110	14.00		29.66	87.3		20.20	1.37		2.90	93.2						1.36		2.88		84.0	39.0		82.6	53.6		4.0	1.00		6.73	6.97	6.73	0.01	2	2	> 2420.0
14		0.280	0.215		0	0	0	0	0																											10.0	0.80		7.24	6.94	6.89	0.01	2	2	
15		0.240	0.236		0	0	0	0	0			10.30			23.1			0.70			1.53						1.36		2.88			25.3			56.1	2.0	< 0.01						2	2	
16		0.310	0.295		0	0	0	0	0						.																												2	2	
17	0.93	0.400	0.372		0	0	0	0	0																												2.0	< 0.01		6.58	7.24	7.27	0.01	2	2	
18		0.430	0.344		0	0	0	0	0	74	11.00		31.56	85.1		18.00	3.00		8.61	83.3										98.0	10.0		28.7	89.8		10.0	1.00		6.40	6.83	6.83	0.02	2	2	> 2420.0
19	0.45	0.430	0.360		0	0	0	0	0	149	67.00		201.16	55.0		13.90	6.83		20.51	50.9																							3	3	> 2420.0
20		0.360	0.367		0	0	0	0	0	169	15.00		45.91	91.1			2.65		8.11							2.14		6.55		202.0	5.0		15.3	97.5		3.0	0.01		6.23	6.62	6.70	0.02	3	3	> 2420.0
21	0.86	0.570	0.572		0	0	0	0	0																					10.0	1.0		4.8	90.0		20.0	1.00		6.77	6.86	6.82	0.00	3	3	
22		0.320	0.243		0	0	0	0	0			31.00			92.8			4.16			12.41																						3	3	
23	1.26	0.610	0.493		0	0	0	0	0																		2.14		6.55			5.3			92.4							3	3	
24	0.07	0.690	0.547		0	0	0	0	0	35	10.00		45.62	71.4		8.80	1.16		5.29	86.8																							2	2	1.0
25		0.350	0.368		0	0	0	0	0	22	10.00		30.69	54.5		11.40	0.43		1.31	96.3										58.0	20.0		61.4	65.5		1.0	0.01		6.40	6.71	6.71	0.02	3	3	2419.0
26	0.60	0.370	0.322		0	0	0	0	0	88	5.00		13.43	94.3		14.70	1.24		3.33	91.6						0.49		1.31		60.0	13.0		34.9	78.3		7.0	1.00		6.24	7.28	7.36	0.02	3	3	< 1.0
27	0.03	0.400	0.396		0	0	0	0	0																					10.0	6.0		19.8	40.0		1.0	0.03		6.47	6.64	6.61	0.02	2	2	
28		0.290	0.238		0	0	0	0	0																											2.0	1.00		6.78	6.99	6.93	0.01	2	2	
29		0.250	0.227		0	0	0	0	0																							3.0			61.2	1.0	0.40					0.00	2	2	
30	0.01	0.250	0.227		0	0	0	0	0																											13.0	< 0.01		6.77	6.49	6.47	0.01	2	2	
31																																												
TOTAL	6.07	10.710	9.616		0	0	0	0	0	2031	166.00		486.62			170.80	51.91		157.26			0.00		0.00		6.87		23.26		1062.0	146.0		369.8			114.5	6.54	0.0	136.85	137.18	136.90	0.30	58	59	17578.0
AVERAGE	0.51	0.357	0.321							169	13.83		40.55	91.8		17.08	4.33		13.11	74.7		0.00		0.00		1.72		5.81		88.5	12.2		30.8	86.3		5.7	0.33	0.0	6.84	6.86	6.85	0.01	2	2	243.2
MAXIMUM	1.26	0.690	0.572							792	67.00	31.00	201.16	99.2	92.8	25.80	11.70	11.50	48.67	98.0	34.50	0.00	0.00	0.00	0.00	2.88	2.88	12.51	12.51	202.0	39.0	25.3	82.6	100.0	95.5	20.0	1.00	0.0	7.60	7.28	7.36	0.02	3	3	2420.0
MINIMUM	0.01	0.240	0.197							22	4.00		11.88	54.5		8.80	0.34		0.81	50.9		0.00		0.00		0.49		1.31		10.0	0.0		0.0	40.0		0.5	0.01	0.0	6.23	6.36	6.47	0.00	1	1	1.0

REMARKS

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DIVISION OF WATER POLLUTION CONTROL

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COUNTY: Crockett

MONTH OF: July YEAR: 2019

DATE	RAINFALL (0.1")	INFLUENT FLOW (MGD)	EFFLUENT FLOW (MGD)	TEMPERATURE EFFLUENT C°	BYPASS OCCURENCES	OVERFLOW				5 DAY CBOD / BOD						AMMONIA NITROGEN						TOTAL NITROGEN				TOTAL PHOSPHORUS				SUSPENDED SOLIDS						SETTLEABLE SOLIDS		DISSOLVED OXYGEN		pH		FINAL EFFLUENT			
						SSO DRY	SSO WET	RELEASE DRY	RELEASE WET	INFLUENT (mg/L)	EFFLUENT (mg/L)	WEEKLY AVERAGE (mg/L)	EFFLUENT (POUNDS)	PERCENT REMOVAL	WEEKLY AVERAGE (lbs)	INFLUENT (mg/L)	EFFLUENT (mg/L)	WEEKLY AVERAGE (mg/L)	EFFLUENT (POUNDS)	PERCENT REMOVAL	WEEKLY AVERAGE (lbs)	EFFLUENT (mg/L)	WEEKLY AVERAGE (mg/L)	EFFLUENT (POUNDS)	WEEKLY AVERAGE (lbs)	EFFLUENT (mg/L)	WEEKLY AVERAGE	EFFLUENT (POUNDS)	WEEKLY AVERAGE (lbs)	INFLUENT (mg/L)	EFFLUENT (mg/L)	WEEKLY AVERAGE (mg/L)	EFFLUENT (POUNDS)	PERCENT REMOVAL	WEEKLY AVERAGE (lbs)	INFLUENT (mg/L)	EFFLUENT (mg/L)	INFLUENT (mg/L)	EFFLUENT (mg/L)	INFLUENT (STANDARD UNITS)	EFFLUENT (STANDARD UNITS)	TOTAL CHLORINE RESIDUAL (mg/L)	GALLONS OF CHLORINE	POUNDS OF SULFUR DIOXIDE	E-COLI
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46
1	0.02	0.300	0.294		0	0	0	0	0	73	12.00		29.42	83.6		18.30	2.24		5.49	87.8										116.0	38.0		93.2	67.2		6.0	0.01		6.02	6.91	6.75	0.01	1	2	2.0
2	trac	0.280	0.244		0	0	0	0	0	112	4.00		8.14	96.4		17.40	0.34		0.70	98.0										144.0	6.0		12.2	95.8		3.0	0.01		6.15	6.66	6.65	0.02	1	2	13.0
3		0.300	0.228		0	0	0	0	0	82	< 4.00		7.61	95.1		15.20	3.15		5.99	79.3						0.58		1.10								2.0	0.01		6.48	6.91	6.77	0.00	1	2	< 1.0
4	0.03	0.280	0.213		0	0	0	0	0																																	1	2	
5	0.15	0.370	0.302		0	0	0	0	0																					34.0	0.0		0.0	100.0		2.0	0.01		6.20	6.57	6.56	0.00	1	2	
6	trac	0.400	0.169		0	0	0	0	0			6.60			15.1			1.91			4.06										14.7			87.6							1	2	
7		0.070	0.192		0	0	0	0	0																																	1	2	
8		0.270	0.249		0	0	0	0	0																											4.5	0.01		6.09	7.09	6.71	0.01	1	2	
9	0.44	0.300	0.239		0	0	0	0	0	224	13.00		25.91	94.2		23.90	7.31		14.57	69.4										112.0	4.0		8.0	96.4		15.0	0.01		6.58	6.92	6.70	0.02	1	2	> 2420.0
10	0.15	0.310	0.300		0	0	0	0	0	207	< 4.00		10.01	98.1		24.30	9.36		23.42	61.5										112.0	0.0		0.0	100.0		1.5	0.01		6.74	7.12	7.13	0.00	1	2	2419.0
11		0.300	0.306		0	0	0	0	0	125	< 4.00		10.21	96.8		19.00	12.20		31.13	35.8						0.96				80.0	6.0		15.3	92.5		2.5	0.00		6.92	7.15	7.21	0.02	1	2	> 2420.0
12		0.280	0.234		0	0	0	0	0																											3.0	0.01		7.32	6.96	6.94	0.01	1	2	
13	0.17	0.250	0.196		0	0	0	0	0			7.00			15.4			9.62			23.04										3.3			96.3							1	2	
14	1.05	0.550	0.440		0	0	0	0	0																																	2	3	
15	1.67	1.050	0.879		0	0	0	0	0																											1.0	0.01		6.13	7.17	7.09	0.00	1	2	
16	0.56	1.110	0.957		0	0	0	0	0	24	34.00		271.37	-41.7		15.50	2.51		20.03	83.8																1.5	0.01		6.30	6.77	6.64	0.01	1	2	3.0
17	0.21	0.510	0.332		0	0	0	0	0	11	5.00		13.84	54.5		5.42	0.49		1.35	91.0										8.0	7.0		19.4	12.5		0.0	0.00		7.55	7.16	7.04	0.02	1	2	4.0
18		0.370	0.374		0	0	0	0	0	48	< 4.00		12.48	91.7		12.70	< 0.20		0.62	98.4						< 0.20		0.62		92.0	0.0		0.0	100.0		4.0	0.00		6.15	6.76	6.73	0.00	1	2	1.0
19		0.390	0.340		0	0	0	0	0																					156.0	14.0		39.7	91.0		1.0	0.00		7.52	7.01	6.94	0.00	1	2	
20	0.20	0.260	0.204		0	0	0	0	0			14.33			99.2			0.40			7.33										7.0			67.8							1	2	
21		0.300	0.216		0	0	0	0	0																																	1	2	
22	0.36	0.290	0.373		0	0	0	0	0	100	< 4.00		12.44	96.0		21.70	0.23		0.72	98.9										72.0	0.0		0.0	100.0		2.0	0.01		6.86	7.09	6.92	0.00	1	2	167.1
23		0.300	0.294		0	0	0	0	0	113	< 4.00		9.81	96.5		23.90	1.44		3.53	94.0										42.0	0.0		0.0	100.0		16.0	0.00		7.20	6.57	6.54	0.01	1	2	1.0
24		0.290	0.302		0	0	0	0	0	195	< 4.00		10.07	97.9		23.10	0.24		0.60	99.0						2.65		6.67		206.0	0.0		0.0	100.0		2.0	0.01		7.52	7.05	6.72	0.00	2	2	0.0
25		0.280	0.291		0	0	0	0	0																											1.0	0.00		7.54	6.70	6.75	0.00	2	2	
26		0.280	0.213		0	0	0	0	0																											1.0	0.00		7.23	6.93	6.90	0.00	2	2	
27		0.280	0.205		0	0	0	0	0			136.00			10.8			26.23			1.61										0.0			100.0							2	2	
28		0.270	0.260		0	0	0	0	0																																	2	2	
29	1.19	0.550	0.581		0	0	0	0	0	113	< 4.00		19.38	96.5		21.20	0.28		1.38	98.7										72.0	0.0		0.0	100.0		2.0	0.00		6.93	7.06	6.96	0.00	2	2	49.5
30	0.02	0.340	0.330		0	0	0	0	0	122	< 4.00		11.01	96.7		27.70	0.21		0.58										50.0	0.0		0.0	100.0		0.5	0.00		6.90	6.81	6.68	0.00	2	1	
31		0.280	0.277		0	0	0	0	0	85	< 4.00	106.66	9.24	95.3	13.2	7.36	< 0.20	18.73	0.46	97.3	13.01					2.76		6.38		38.0	14.0		32.3	63.2		3.0	0.00		7.08	6.97	6.86	0.00	2	1	8.6
TOTAL	6.22	11.410	10.034		0	0	0	0	0	1634	108.00		460.94			276.68	40.40		110.58			0.00		0.00		7.14		14.77		1334.0	89.0		220.1			74.5	0.12	0.0	149.41	152.34	150.19	0.13	37	57	7509.2
AVERAGE	0.44	0.368	0.324							109	7.20		30.73	93.4		18.45	2.69		7.37	85.4		0.00		0.00		1.43		3.69		88.9	5.9		14.7	93.3		3.4	0.01	0.0	6.79	6.92	6.83	0.01	1	2	22.5
MAXIMUM	1.67	1.110	0.957							224	34.00	136.00	271.37	98.1	99.2	27.70	12.20	26.23	31.13	99.0	23.04	0.00	0.00	0.00	0.00	2.76	0.00	6.67	0.00	206.0	38.0	14.7	93.2	100.0	100.0	16.0	0.01	0.0	7.55	7.17	7.21	0.02	2	3	2420.0
MINIMUM	0.02	0.070	0.169							11	4.00		7.61	-41.7		5.42	0.20		0.46	35.8		0.00		0.00		0.20		0.62		8.0	0.0		0.0	12.5		0.0	0.00	0.0	6.02	6.57	6.54	0.00	1	1	0.0

REMARKS

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						SSO DRY	SSO WET	RELEASE DRY	RELEASE WET	INFLUENT (mg/L)	EFFLUENT (mg/L)	WEEKLY AVERAGE	EFFLUENT (POUNDS)	PERCENT REMOVAL	WEEKLY AVERAGE (lbs)	INFLUENT (mg/L)	EFFLUENT (mg/L)	WEEKLY AVERAGE (mg/L)	EFFLUENT (POUNDS)	PERCENT REMOVAL	WEEKLY AVERAGE (lbs)	EFFLUENT (mg/L)	WEEKLY AVERAGE (mg/L)	EFFLUENT (POUNDS)	WEEKLY AVERAGE (lbs)	EFFLUENT (mg/L)	WEEKLY AVERAGE	EFFLUENT (POUNDS)	WEEKLY AVERAGE (lbs)	INFLUENT (mg/L)	EFFLUENT (mg/L)	WEEKLY AVERAGE (mg/L)	EFFLUENT (POUNDS)	PERCENT REMOVAL	WEEKLY AVERAGE (lbs)	INFLUENT (mg/L)	EFFLUENT (mg/L)	INFLUENT (mg/L)	EFFLUENT (mg/L)	INFLUENT (STANDARD UNITS)	EFFLUENT (STANDARD UNITS)	TOTAL CHLORINE RESIDUAL (mg/L)	GALLONS OF CHLORINE	POUNDS OF SULFUR DIOXIDE	E-COLI
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46
1		0.280	0.252		0	0	0	0	0																											10.0	0.00		6.87	6.80	6.78	0.00	2	1	68.0
2		0.290	0.220		0	0	0	0	0																											5.0	0.01		6.00	6.97	6.89	0.01	2	1	
3		0.280	0.212		0	0	0	0	0																																		2	1	
4	0.28	0.460	0.352		0	0	0	0	0																																		2	1	
5		0.330	0.326		0	0	0	0	0	78	< 4.00		10.88	94.9		14.70	2.65		7.20	82.0											126.0	0.0		0.0	100.0		8.0	0.01		6.09	6.85	6.79	0.01	2	1	> 1.0
6	0.57	0.480	0.475		0	0	0	0	0	115	< 4.00		15.85	96.5		23.90	1.37		5.43	94.3											106.0	8.0		31.7	92.5		2.0	0.01		6.32	6.71	6.68	0.00	2	1	58.4
7	0.05	0.360	0.361		0	0	0	0	0	76	< 4.00		12.04	94.7		19.00	1.83		5.51	90.4						1.04		3.13		72.0	2.0		6.0	97.2		0.5	0.00		6.08	7.24	7.13	0.00	2	1	51.2
8		0.320	0.317		0	0	0	0	0			4.00			12.9			1.95			6.04											3.3			96.5	12.0	0.00		6.01	6.82	6.82	0.00	2	1	
9	0.01	0.330	0.270		0	0	0	0	0																											1.0	0.01		6.67	6.96	6.91	0.00	2	1	
10		0.250	0.178		0	0	0	0	0																																		2	1	
11		0.290	0.276		0	0	0	0	0																																		2	1	
12		0.320	0.307		0	0	0	0	0	79	< 4.00		10.24	94.9		1.52	3.62		9.27	-138.2											136.0	9.0		23.0	93.4		1.0	0.00		9.06	7.00	6.86	0.00	2	1	> 1.0
13	0.86	0.530	0.524		0	0	0	0	0	113	< 4.00		17.48	96.5		26.90	4.21		18.40	84.3											118.0	9.0		39.3	92.4		2.0	0.00		7.65	6.61	6.63	0.00	2	1	> 1.0
14		0.380	0.284		0	0	0	0	0																											10.0	0.05		7.43	6.92	6.85	0.00	2	1	
15		0.320	0.312		0	0	0	0	0	42	8.00		20.82	81.0		15.48	9.50		24.72	38.6						4.32		11.24		54.0	9.0		23.4	83.3		4.0	0.01		7.33	6.76	6.71	0.00	2	1	> 1.0
16		0.430	0.251		0	0	0	0	0			5.30			16.1			5.77			17.46											9.0			89.7	8.0	0.01		7.94	7.13	7.06	0.02	2	1	
17		0.180	0.166		0	0	0	0	0																																		2	1	
18	0.04	0.270	0.273		0	0	0	0	0																																		2	1	
19		0.300	0.310		0	0	0	0	0																					62.0	17.0		44.0	72.6		2.0	0.01		8.06	6.99	6.93	0.00	2	1	49.0
20		0.280	0.293		0	0	0	0	0	101	< 4.00		9.77	96.0		23.10	9.92		24.24	57.1											86.0	4.0		9.8	95.3		0.5	0.01		7.52	6.95	6.77	0.00	2	1	51.2
21		0.310	0.316		0	0	0	0	0	113	20.00		52.71	82.3		31.10	10.90		28.73	65.0						1.24		3.27		78.0	3.0		7.9	96.2		25.0	0.00		8.02	6.96	6.94	0.00	2	1	49.5
22		0.630	0.666		0	0	0	0	0	142	5.00		27.77	96.5		35.90	10.50		58.32	70.8													8.0			88.0	5.0	0.00		7.15	6.74	6.67	0.00	1	1	
23		0.410	0.319		0	0	0	0	0			9.60			30.0			10.44			37.09															2.0	0.05		7.11	7.06	6.97	0.01	1	1	
24		0.290	0.224		0	0	0	0	0																																		1	1	
25	0.33	0.380	0.358		0	0	0	0	0																																		1	1	
26	0.12	0.590	0.451		0	0	0	0	0																											4.0	0.50		6.85	7.05	7.26	0.01	1	1	49.5
27		0.350	0.342		0	0	0	0	0	81	8.00		22.82	90.1		16.20	2.27		6.47	86.0											144.0	5.0		14.3	96.5		2.0	0.01		6.78	6.61	6.65	0.00	1	1	49.5
28		0.320	0.306		0	0	0	0	0	68	11.00		28.07	83.8		15.30	2.72		6.94	82.2											112.0	18.0		45.9	83.9		4.5	0.01		7.23	7.17	7.05	0.01	1	1	
29		0.290	0.288		0	0	0	0	0	96	5.00		12.01	94.8		21.60	3.07		7.37	85.8						1.79		4.30		92.0	11.0		26.4	88.0		7.0	0.01		7.56	6.73	6.72	0.00	1	1	52.8
30		0.320	0.246		0	0	0	0	0																							11.3			89.4	12.0	0.01		7.74	7.00	6.97	0.00	1	1	
31		0.260	0.296		0	0	0	0	0																																		1	1	
TOTAL	2.26	10.830	9.771		0	0	0	0	0	###	81.00		240.46			244.70	62.56		202.61			0.00		0.00		8.39		21.94		1186.0	95.0		271.8			127.5	0.72	0.0	157.47	152.03	151.04	0.07	51	25	483.1
AVERAGE	0.28	0.349	0.315							92	6.75		20.04	92.7		20.39	5.21		16.88	74.4		0.00		0.00		2.10		5.48		98.8	7.9		22.6	92.0		5.8	0.03	0.0	7.16	6.91	6.87	0.00	2	1	15.6
MAXIMUM	0.86	0.630	0.666							142	20.00	9.60	52.71	96.5	30.0	35.90	10.90	10.44	58.32	94.3	37.09	0.00	0.00	0.00	0.00	4.32	0.00	11.24	0.00	144.0	18.0	11.3	45.9	100.0	96.5	25.0	0.50	0.0	9.06	7.24	7.26	0.02	2	1	68.0
MINIMUM	0.01	0.180	0.166							42	4.00		9.77	81.0		1.52	1.37		5.43	-138.2		0.00		0.00		1.04		3.13		54.0	0.0		0.0	72.6		0.5	0.00	0.0	6.00	6.61	6.63	0.00	1	1	1.0

REMARKS

CERTIFIED OPERATOR

John A. Gorman
PRINT

SIGNATUIRE

GRADE 3

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION

DIVISION OF WATER POLLUTION CONTROL

REPORT OF OPERATION ON WASTEWATER TREATMENT

PLANT: Town of Alamo - TN0024988
COUNTY: Crockett
MONTH OF: September YEAR: 2019

DATE	RAINFALL (0.1")	INFLUENT FLOW (MGD)	EFFLUENT FLOW (MGD)	TEMPERATURE EFFLUENT C°	BYPASS OCCURENCES	OVERFLOW				5 DAY CBOD / BOD						AMMONIA NITROGEN						TOTAL NITROGEN				TOTAL PHOSPHORUS				SUSPENDED SOLIDS						SETTLEABLE SOLIDS		DISSOLVED OXYGEN		pH		FINAL EFFLUENT			
						SSO DRY	SSO WET	RELEASE DRY	RELEASE WET	INFLUENT (mg/L)	EFFLUENT (mg/L)	WEEKLY AVERAGE	EFFLUENT (POUNDS)	PERCENT REMOVAL	WEEKLY AVERAGE (lbs)	INFLUENT (mg/L)	EFFLUENT (mg/L)	WEEKLY AVERAGE (mg/L)	EFFLUENT (POUNDS)	PERCENT REMOVAL	WEEKLY AVERAGE (lbs)	EFFLUENT (mg/L)	WEEKLY AVERAGE (mg/L)	EFFLUENT (POUNDS)	WEEKLY AVERAGE (lbs)	EFFLUENT (mg/L)	WEEKLY AVERAGE (mg/L)	EFFLUENT (POUNDS)	WEEKLY AVERAGE (lbs)	INFLUENT (mg/L)	EFFLUENT (mg/L)	WEEKLY AVERAGE (mg/L)	EFFLUENT (POUNDS)	PERCENT REMOVAL	WEEKLY AVERAGE (lbs)	INFLUENT (mg/L)	EFFLUENT (mg/L)	INFLUENT (mg/L)	EFFLUENT (mg/L)	INFLUENT (STANDARD UNITS)	EFFLUENT (STANDARD UNITS)	TOTAL CHLORINE RESIDUAL (mg/L)	GALLONS OF CHLORINE	POUNDS OF SULFUR DIOXIDE	E-COLI
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46
1		0.280	0.169		0	0	0	0	0																											3.0	0.05		7.37	6.79	7.40	0.00	1	1	
2		0.250	0.237		0	0	0	0	0																																		1	1	
3		0.270	0.263		0	0	0	0	0	99	< 4.00		8.77	96.0		20.00	2.32		5.09	88.4											192.0	12.0		26.3	93.8		10.0	0.01		7.43	6.76	6.82	0.00	1	1	51.2
4		0.290	0.288		0	0	0	0	0	173	< 4.00		9.61	97.7		25.40	2.13		5.12	91.6											120.0	8.0		19.2	93.3		4.5	0.01		6.99	7.08	6.97	0.00	2	1	59.7
5		0.320	0.225		0	0	0	0	0	100	< 4.00		7.51	96.0		16.00	2.47		4.63	84.6						1.39		2.61		424.0	0.0		0.0	100.0		10.0	0.00		7.66	6.61	6.64	0.01	2	1	51.2
6		0.320	0.225		0	0	0	0	0			4.00			8.6			2.30			4.94						1.39		2.61							2.0	0.00		7.78	7.03	6.96	0.01	3	3	
7		0.310	0.210		0	0	0	0	0																							6.6			15.1							3	3	
8		0.190	0.196		0	0	0	0	0																																	3	3	
9		0.300	0.295		0	0	0	0	0	83	10.00		24.60	88.0		32.20	14.20		34.94	55.9											56.0	9.0		22.1	83.9		4.0	0.01		7.62	7.14	7.33	0.00	3	3	52.9
10		0.300	0.315		0	0	0	0	0	102	< 4.00		10.51	96.1		25.70	15.60		40.98	39.3											80.0	7.0		18.4	91.3		5.0	0.01		7.96	6.57	7.42	0.01	3	3	1.0
11		0.310	0.287		0	0	0	0	0	130	9.00		21.54	93.1		27.50	19.30		46.20	29.8						11.10		26.57		180.0	6.0		14.4	96.7		2.0	0.01		7.28	7.06	6.95	0.00	4	3	> 2420.0
12		0.300	0.314		0	0	0	0	0			7.60			18.8			16.36			40.70						11.10		26.57							6.0	0.05		7.65	6.51	7.34	0.00	4	3	
13		0.370	0.362		0	0	0	0	0																							7.3			18.3	3.0	0.05		7.37	7.25	7.40	0.00	4	3	
14		0.190	0.138		0	0	0	0	0																																	4	3	
15		0.270	0.263		0	0	0	0	0																																	4	3	
16		0.290	0.292		0	0	0	0	0	107	17.00		41.40	84.1		17.90	25.00		60.88	-39.7											208.0	2.0		4.9	99.0		3.0	0.01		7.71	7.15	7.40	0.00	4	3	325.7
17		0.280	0.296		0	0	0	0	0	191	16.00		39.50	91.6		23.70	25.20		62.21	-6.3											332.0	27.0		66.7	91.9		5.0	0.01		7.25	6.67	7.41	0.00	2	2	
18		0.250	0.259		0	0	0	0	0																																	0.5	0.01		7.55	7.03	7.44	0.00	2	2	> 2420.0
19		0.290	0.297		0	0	0	0	0	158	< 4.00		9.91	97.5		30.10	21.40		53.01	28.9						4.73		11.72		134.0	7.0		17.3	94.8		2.0	0.01		7.24	6.69	7.33	0.01	2	2	727.0
20		0.280	0.212		0	0	0	0	0			7.00			30.3			23.80			58.70						4.73					12.0			29.6	1.5	0.01		6.98	6.82	7.22	0.00	2	2	
21		0.230	0.151		0	0	0	0	0																				11.72													2	2	
22		0.280	0.282		0	0	0	0	0																																	2	2	
23		0.300	0.300		0	0	0	0	0	99	< 4.00		10.01	96.0		20.00	34.40		86.06	-14.4											88.0	5.0		12.5	94.3		2.5	0.01		7.15	7.05	7.41	0.00	2	2	
24	0.06	0.270	0.281		0	0	0	0	0	109	< 4.00		9.37	96.3		16.30	21.50		50.39	-31.9											42.0	3.0		7.0	92.9		3.0	0.01		7.47	6.60	7.41	0.02	2	2	68.9
25	0.36	0.370	0.382		0	0	0	0	0	135	< 4.00		12.74	97.0		19.50	# 12.50		39.82	35.9						2.32		7.39		122.0	2.0		6.4	98.4		3.0	0.01		7.94	7.00	7.29	0.00	2	2	36.4
26	0.15	0.370	0.368		0	0	0	0	0			4.00			10.7			22.80								2.32		7.39				3.3			6.5	5.0	0.02		7.24	6.67	7.18	0.00	2	2	32.8
27		0.270	0.205		0	0	0	0	0																												3.0	0.50		7.43	7.01	7.00	0.00	2	2	
28		0.340	0.231		0	0	0	0	0																																	2	2	
29		0.190	0.199		0	0	0	0	0																																	2	2	
30		0.260	0.270		0	0	0	0	0	136	5.00		11.26	96.3		23.20	6.67		15.02	71.3											268.0	9.0		20.3	96.6		3.0	0.02		7.05	7.14	7.06	0.00	2	2	128.7
31																																												
TOTAL	0.57	8.540	7.812		0	0	0	0	0	1622	89.00		216.73			297.50	202.69		504.34			0.00		0.00		19.54		48.28		2246.0	97.0		235.5			81.0	0.82	0.0	156.12	144.63	151.38	0.06	71	62	6375.5
AVERAGE	0.19	0.285	0.260							125	6.85		16.67	94.5		22.88	15.59		38.80	31.9		0.00		0.00		4.89		12.07		172.8	7.5		18.1	95.7		3.9	0.04	0.0	7.43	6.89	7.21	0.00	2	2	101.5
MAXIMUM	0.36	0.370	0.382							191	17.00	7.60	41.40	97.7	30.3	32.20	34.40	23.80	86.06	91.6	58.70	0.00	0.00	0.00	0.00	11.10	11.10	26.57	26.57	424.0	27.0	12.0	66.7	100.0	29.6	10.0	0.50	0.0	7.96	7.25	7.44	0.02	4	3	2420.0
MINIMUM	0.06	0.190	0.138							83	4.00		7.51	84.1		16.00	2.13		4.63	-39.7		0.00		0.00		1.39		2.61		42.0	0.0		0.0	83.9		0.5	0.00	0.0	6.98	6.51	6.64	0.00	1	1	1.0

REMARKS

CERTIFIED OPERATOR

John A. Gorman
PRINT

SIGNATUIRE

GRADE 3

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION

DIVISION OF WATER POLLUTION CONTROL

REPORT OF OPERATION ON WASTEWATER TREATMENT

PLANT Town of Alamo - TN0024988

COUNTY Crockett

MONTH OF October YEAR 2019

DATE	RAINFALL (0.1")	INFLUENT FLOW (MGD)	EFFLUENT FLOW (MGD)	TEMPERATURE EFFLUENT C°	BYPASS OCCURENCES	OVERFLOW				5 DAY CBOD / BOD						AMMONIA NITROGEN						TOTAL NITROGEN				TOTAL PHOSPHORUS				SUSPENDED SOLIDS						SETTLEABLE SOLIDS		DISSOLVED OXYGEN		pH		FINAL EFFLUENT			
						SSO DRY	SSO WET	RELEASE DRY	RELEASE WET	INFLUENT (mg/L)	EFFLUENT (mg/L)	WEEKLY AVERAGE (mg/L)	EFFLUENT (POUNDS)	PERCENT REMOVAL	WEEKLY AVERAGE (lbs)	INFLUENT (mg/L)	EFFLUENT (mg/L)	WEEKLY AVERAGE (mg/L)	EFFLUENT (POUNDS)	PERCENT REMOVAL	WEEKLY AVERAGE (lbs)	EFFLUENT (mg/L)	WEEKLY AVERAGE (mg/L)	EFFLUENT (POUNDS)	WEEKLY AVERAGE (lbs)	EFFLUENT (mg/L)	WEEKLY AVERAGE	EFFLUENT (POUNDS)	WEEKLY AVERAGE (lbs)	INFLUENT (mg/L)	EFFLUENT (mg/L)	WEEKLY AVERAGE (mg/L)	EFFLUENT (POUNDS)	PERCENT REMOVAL	WEEKLY AVERAGE (lbs)	INFLUENT (mg/L)	EFFLUENT (mg/L)	INFLUENT (mg/L)	EFFLUENT (mg/L)	INFLUENT (STANDARD UNITS)	EFFLUENT (STANDARD UNITS)	TOTAL CHLORINE RESIDUAL (mg/L)	GALLONS OF CHLORINE	POUNDS OF SULFUR DIOXIDE	E-COLI
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46
1		0.260	0.252		0	0	0	0	0	206	< 4.00		8.41	98.1		23.10	7.62		16.01	67.0										166.0	0.0		0.0	100.0		5.0	0.01		6.63	6.57	6.73	0.00	2	2	54.8
2		0.260	0.264		0	0	0	0	0	239	< 4.00		8.81	98.3		23.50	9.08		19.99	61.4						1.31		2.88		182.0	5.0		11.0	97.3		2.0	0.01		7.03	7.13	7.01	0.00	2	2	43.7
3		0.260	0.238		0	0	0	0	0			4.00			13.6			8.35			18.00						1.31		2.88				2.5			6.5	5.0	0.01		7.78	6.64	6.61	0.00	2	2	116.0
4		0.210	0.143		0	0	0	0	0																											8.0	0.01		6.85	6.87	6.83	0.00	2	2	
5		0.222	0.145		0	0	0	0	0																																		2	2	
6	2.02	0.690	0.574		0	0	0	0	0																																		2	2	
7	0.02	0.340	0.294		0	0	0	0	0	38	11.00		26.97	71.1		33.30	0.33		0.81	99.0										64.0	21.0		51.5	67.2		2.0	1.00		6.99	7.08	7.00	0.02	2	2	691.0
8		0.240	0.202		0	0	0	0	0	154	4.00		6.74	97.4		13.80	0.37		0.63	97.3										124.0	2.0		3.4	98.4		3.0	1.00		7.87	6.58	6.66	0.00	2	2	51.2
9		0.230	0.241		0	0	0	0	0	147	< 4.00		8.04	97.3		27.30	0.49		0.99	98.2						1.08		2.17		80.0	1.0		2.0	98.8		2.0	0.01		7.82	6.95	6.75	0.02	2	2	529.8
10		0.280	0.272		0	0	0	0	0			6.33			14.9			0.39			0.81						1.08		2.17				8.0			18.3	5.0	0.01		6.82	6.58	6.69	0.01	2	2	
11	0.76	0.600	0.493		0	0	0	0	0																											2.0	1.00		6.18	6.97	6.96	0.00	2	2	
12		0.250	0.161		0	0	0	0	0																																		2	2	
13		0.250	0.210		0	0	0	0	0																																		2	2	
14		0.130	0.220		0	0	0	0	0	129	5.00		9.17	96.1		20.30	0.27		0.50	98.7										60.0	21.0		38.5	65.0		3.0	0.50		6.28	7.07	7.04	0.02	2	2	816.4
15	1.18	0.590	0.465		0	0	0	0	0	97	< 4.00		15.51	95.9		16.80	0.35		1.36	97.9										112.0	4.0		15.5	96.4		4.0	0.20		6.26	6.26	6.67	0.02	2	2	579.4
16		0.270	0.262		0	0	0	0	0	126	< 4.00		8.74	96.8		25.80	< 0.20		0.44	99.2						2.75		6.01		156.0	0.0		0.0	100.0		8.0	0.01		7.85	7.20	7.18	0.00	2	2	
17		0.240	0.223		0	0	0	0	0			4.33			11.1			0.27			0.76						2.75		6.01				119.0			18.0	1.8	0.10		8.54	6.73	6.76	0.04	2	2	
18		0.240	0.168		0	0	0	0	0																											4.0	0.10		8.98	6.86	6.79	0.02	2	2	
19		0.260	0.173		0	0	0	0	0																																		2	2	
20		0.230	0.207		0	0	0	0	0																																		2	2	
21	0.60	0.510	0.503		0	0	0	0	0	137	4.00		16.78	97.1		32.10	0.68		2.87	97.9										124.0	17.0		71.3	86.3		1.5	0.01		8.87	7.41	7.63	0.02	2	2	1.0
22		0.280	0.275		0	0	0	0	0	66	< 4.00		9.17	93.9		17.00	1.65		3.78	90.3										22.0	4.0		9.2	81.8		1.5	0.10		9.11	6.82	6.94	0.07	2	2	26.9
23		0.240	0.223		0	0	0	0	0	87	< 4.00		7.44	95.4		20.80	0.69		1.28	96.7						2.77		5.15		96.0	2.0		3.7	97.9		1.0	0.10		9.66	7.68	7.53	0.00	2	2	18.1
24		0.250	0.238		0	0	0	0	0			4.00			33.4			1.00			2.64						2.77		5.15				80.6			28.0	2.0	0.01		8.91	6.91	6.89	0.01	2	2	
25	1.86	0.880	0.720		0	0	0	0	0																													1.5	0.10		9.91	6.86	6.96	0.02	2	2	
26	1.23	1.140	0.969		0	0	0	0	0																																		2	2	
27		0.400	0.362		0	0	0	0	0																																		2	2	
28		0.420	0.373		0	0	0	0	0	74	12.00		37.33	83.8		10.10	< 0.20		0.62	98.0										40.0	18.0		56.0	55.0		8.0	0.20		9.48	7.30	7.20	0.00	2	2	139.0
29	0.11	0.300	0.252		0	0	0	0	0	94	< 4.00		8.41	95.7		20.10	< 0.20		0.42	99.0										66.0	5.0		10.5	92.4		7.0	0.10		9.16	6.79	6.71	0.02	2	2	472.1
30	1.89	1.280	1.286		0	0	0	0	0	131	< 4.00		42.90	96.9		28.10	0.38		4.06	98.7						1.03		11.05		94.0	6.0		64.4	93.6		1.0	0.50		9.23	7.54	7.79	0.02	2	3	727.0
31		0.850	0.671		0	0	0	0	0			6.66			29.5			0.26									1.03		11.05				66.6			43.6	2.0	0.01		8.43	6.54	6.73	0.02	2	3	
TOTAL	9.67	12.602	11.079		0	0	0	0	0	1725	72.00		214.42			312.10	22.52		53.78			0.00		0.00		8.94		27.26		1386.0	106.0		337.0			80.3	5.10	0.0	184.64	159.34	160.06	0.33	58	61	4266.4
AVERAGE	1.07	0.407	0.357							123	5.14		15.32	95.8		22.29	1.61		3.84	92.8		0.00		0.00		1.79		5.45		99.0	7.6		24.1	92.4		3.5	0.22	0.0	8.03	6.93	6.96	0.01	2	2	113.3
MAXIMUM	2.02	1.280	1.286							239	12.00	6.66	42.90	98.3	33.4	33.30	9.08	8.35	19.99	99.2	18.00	0.00	0.00	0.00	0.00	2.77	2.77	11.05	11.05	182.0	21.0	119.0	71.3	100.0	43.6	8.0	1.00	0.0	9.91	7.68	7.79	0.07	2	3	816.4
MINIMUM	0.02	0.130	0.143							38	4.00		6.74	71.1		10.10	0.20		0.42	61.4		0.00		0.00		1.03		2.17		22.0	0.0		0.0	55.0		1.0	0.01	0.0	6.18	6.26	6.61	0.00	2	2	1.0

REMARKS

CERTIFIED OPERATOR

John A. Gorman
PRINT

SIGNATUIRE

GRADE 3

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION

DIVISION OF WATER POLLUTION CONTROL

REPORT OF OPERATION ON WASTEWATER TREATMENT

PLANT Town of Alamo - TN0024988

COUNTY Crockett

MONTH OF November YEAR 2019

DATE	RAINFALL (0.1")	INFLUENT FLOW (MGD)	EFFLUENT FLOW (MGD)	TEMPERATURE EFFLUENT C°	BYPASS OCCURENCES	OVERFLOW				5 DAY CBOD / BOD						AMMONIA NITROGEN						TOTAL NITROGEN				TOTAL PHOSPHORUS				SUSPENDED SOLIDS						SETTLEABLE SOLIDS		DISSOLVED OXYGEN		pH		FINAL EFFLUENT			
						SSO DRY	SSO WET	RELEASE DRY	RELEASE WET	INFLUENT (mg/L)	EFFLUENT (mg/L)	WEEKLY AVERAGE (mg/L)	EFFLUENT (POUNDS)	PERCENT REMOVAL	WEEKLY AVERAGE (lbs)	INFLUENT (mg/L)	EFFLUENT (mg/L)	WEEKLY AVERAGE (mg/L)	EFFLUENT (POUNDS)	PERCENT REMOVAL	WEEKLY AVERAGE (lbs)	EFFLUENT (mg/L)	WEEKLY AVERAGE (mg/L)	EFFLUENT (POUNDS)	WEEKLY AVERAGE (lbs)	EFFLUENT (mg/L)	WEEKLY AVERAGE	EFFLUENT (POUNDS)	WEEKLY AVERAGE (lbs)	INFLUENT (mg/L)	EFFLUENT (mg/L)	WEEKLY AVERAGE (mg/L)	EFFLUENT (POUNDS)	PERCENT REMOVAL	WEEKLY AVERAGE (lbs)	INFLUENT (mg/L)	EFFLUENT (mg/L)	INFLUENT (mg/L)	EFFLUENT (mg/L)	INFLUENT (STANDARD UNITS)	EFFLUENT (STANDARD UNITS)	TOTAL CHLORINE RESIDUAL (mg/L)	GALLONS OF CHLORINE	POUNDS OF SULFUR DIOXIDE	E-COLI
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46
1		0.400	0.329		0	0	0	0	0																											1.5	0.10		10.53	7.56	7.44	0.00	2	2	
2		0.280	0.184		0	0	0	0	0																																		2	2	
3		0.260	0.238		0	0	0	0	0																																		2	2	
4		0.300	0.257		0	0	0	0	0	32	< 4.00		8.57	87.5		11.00	< 0.20		0.43	98.2											46.0	29.0		62.2	37.0		2.0	1.00		10.35	6.94	6.72	0.00	2	2	107.9
5		0.300	0.264		0	0	0	0	0	160	< 4.00		8.81	97.5		27.70	1.12		2.47	96.0											78.0	3.0		6.6	96.2		10.0	0.10		10.07	6.78	6.79	0.02	2	2	51.2
6	0.40	0.300	0.218		0	0	0	0	0	52	6.00		10.91	88.5		12.70	0.24		0.44	98.1						2.15		3.91		42.0	24.0		43.6	42.9		0.5	1.80		10.00	7.45	7.67	0.02	2	2	231.0
7	0.99	1.030	0.859		0	0	0	0	0			4.60			9.4			0.52			1.11						2.15		3.91			18.6			37.4	40.0	0.20		8.92	6.65	6.75	0.01	2	2	
8		0.370	0.250		0	0	0	0	0																											3.0	0.10		7.26	7.48	7.66	0.02	2	2	
9		0.300	0.203		0	0	0	0	0																																		2	2	
10		0.220	0.186		0	0	0	0	0																																		2	2	
11	0.42	0.590	0.466		0	0	0	0	0	75	11.00		42.75	85.3		10.80	< 0.20		0.78	98.1											84.0	18.0		70.0	78.6		1.0	0.10		10.69	7.18	7.13	0.00	2	2	137.7
12		0.450	0.377		0	0	0	0	0	95	< 4.00		12.58	95.8		7.65	< 0.20		0.63	97.4											278.0	4.0		12.6	98.6		5.0	0.10		8.67	6.89	6.90	0.02	1	2	
13		0.360	0.261		0	0	0	0	0	65	6.00		13.06	90.8		14.50	< 0.20		0.44	98.6						1.34		2.92		42.0	12.0		26.1	71.4		2.5	0.10		6.65	7.79	7.51	0.02	1	2	< 1.0
14		0.360	0.254		0	0	0	0	0			5.20			22.7			0.20			0.61						1.34		2.92			11.3			36.2	4.0	0.70		7.25	7.00	6.79	0.02	1	2	167.4
15		0.320	0.225		0	0	0	0	0																											4.0	0.10		7.11	7.27	7.14	0.00	1	2	
16		0.240	0.161		0	0	0	0	0																																		2	2	
17	0.18	0.310	0.211		0	0	0	0	0																																		1	1	
18		0.290	0.315		0	0	0	0	0	126	< 4.00		10.51	96.8		23.90	0.25		0.66	99.0											24.0	0.0		0.0	100.0		3.0	0.10		10.65	7.10	6.94	0.00	1	1	
19		0.270	0.181		0	0	0	0	0																											25.0	0.10		6.85	6.60	6.80	0.01	1	1	
20		0.300	0.181		0	0	0	0	0	122	< 4.00		6.04	96.7		20.00	1.21		1.83	94.0											88.0	10.0		15.1	88.6								3	2	
21	2.00	0.380	0.325		0	0	0	0	0																											3.5	0.10		7.35	6.82	6.74	0.02	2	1	> 2419.6
22	0.17	1.070	0.884		0	0	0	0	0	99	7.00		51.61	92.9		13.10	0.46		3.42	96.5						1.97		14.52		62.0	20.0		147.5	67.7		1.0	0.10		9.38	7.19	7.27	0.00	2	1	1986.3
23	0.02	0.580	0.545		0	0	0	0	0			5.00			22.6			0.64			1.97						1.97		14.52			10.0			54.2	4.0	0.10		8.45	6.78	6.64	0.00	2	2	< 1.0
24		0.380	0.365		0	0	0	0	0																											0.5	0.10		8.89	6.78	6.75	0.01	2	1	547.5
25		0.440	0.334		0	0	0	0	0	14	7.00		19.50	50.0		9.04	2.19		6.10	75.8											28.0	7.0		19.5	75.0		0.5	0.10		6.41	7.32	7.27	0.00	3	2	49.5
26	1.60	0.840	0.726		0	0	0	0	0	103	14.00		84.77	86.4		14.10	5.25		31.79	62.8											34.0	3.0		18.2	91.2		5.0	0.10		8.43	7.02	6.95	0.00	2	2	316.9
27		0.850	0.680		0	0	0	0	0	175	9.00		51.04	94.9		3.55	2.53		14.35	28.7						0.97		5.47		306.0	10.0		56.7	96.7		0.3	0.10		8.45	7.43	7.37	0.02	3	2	
28	0.35	0.620	0.498		0	0	0	0	0			10.00			51.8			3.32			1\7.41						0.97		5.47			6.6			31.5	10.0	0.10		7.17	6.97	6.83	0.00	2	1	
29	0.14	0.830	0.667		0	0	0	0	0																																		3	2	
30	0.26	0.750	0.636		0	0	0	0	0																																		2	1	
31					0	0	0	0	0																																				
TOTAL	6.53	13.990	11.280		0	0	0	0	0	###	80.00		320.14			168.04	14.06		63.32			0.00		0.00		6.43		26.82		1112.0	140.0		478.0			126.3	5.40	0.0	179.53	149.00	148.06	0.19	52	52	6017.0
AVERAGE	0.59	0.466	0.376							93	6.67		26.68	92.8		14.00	1.17		5.28	91.6		0.00		0.00		1.61		6.71		92.7	11.7		39.8	87.4		6.0	0.26	0.0	8.55	7.10	7.05	0.01	2	2	101.6
MAXIMUM	2.00	1.070	0.884							175	14.00	10.00	84.77	97.5	51.8	27.70	5.25	3.32	31.79	99.0	1.97	0.00	0.00	0.00	0.00	2.15	2.15	14.52	14.52	306.0	29.0	18.6	147.5	100.0	54.2	40.0	1.80	0.0	10.69	7.79	7.67	0.02	3	2	2419.6
MINIMUM	0.02	0.220	0.161							14	4.00		6.04	50.0		3.55	0.20		0.43	28.7		0.00		0.00		0.97		2.92		24.0	0.0		0.0	37.0		0.3	0.10	0.0	6.41	6.60	6.64	0.00	1	1	1.0

REMARKS

CERTIFIED OPERATOR

John A. Gorman
PRINT

SIGNATUIRE

GRADE 3

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION

DIVISION OF WATER POLLUTION CONTROL

REPORT OF OPERATION ON WASTEWATER TREATMENT

PLANT: Town of Alamo - TN0024988

COUNTY: Crockett

MONTH OF: December YEAR: 2019

DATE	RAINFALL (0.1")	INFLUENT FLOW (MGD)	EFFLUENT FLOW (MGD)	TEMPERATURE EFFLUENT C°	BYPASS OCCURENCES	OVERFLOW				5 DAY CBOD / BOD						AMMONIA NITROGEN						TOTAL NITROGEN				TOTAL PHOSPHORUS				SUSPENDED SOLIDS						SETTLEABLE SOLIDS		DISSOLVED OXYGEN		pH		FINAL EFFLUENT			
						SSO DRY	SSO WET	RELEASE DRY	RELEASE WET	INFLUENT (mg/L)	EFFLUENT (mg/L)	WEEKLY AVERAGE (mg/L)	EFFLUENT (POUNDS)	PERCENT REMOVAL	WEEKLY AVERAGE (lbs)	INFLUENT (mg/L)	EFFLUENT (mg/L)	WEEKLY AVERAGE (mg/L)	EFFLUENT (POUNDS)	PERCENT REMOVAL	WEEKLY AVERAGE (lbs)	EFFLUENT (mg/L)	WEEKLY AVERAGE (mg/L)	EFFLUENT (POUNDS)	WEEKLY AVERAGE (lbs)	EFFLUENT (mg/L)	WEEKLY AVERAGE	EFFLUENT (POUNDS)	WEEKLY AVERAGE (lbs)	INFLUENT (mg/L)	EFFLUENT (mg/L)	WEEKLY AVERAGE (mg/L)	EFFLUENT (POUNDS)	PERCENT REMOVAL	WEEKLY AVERAGE (lbs)	INFLUENT (mg/L)	EFFLUENT (mg/L)	INFLUENT (mg/L)	EFFLUENT (mg/L)	INFLUENT (STANDARD UNITS)	EFFLUENT (STANDARD UNITS)	TOTAL CHLORINE RESIDUAL (mg/L)	GALLONS OF CHLORINE	POUNDS OF SULFUR DIOXIDE	E-COLI
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46
1	0.26	0.490	0.464		0	0	0	0	0																																	3	2	
2		0.430	0.447		0	0	0	0	0	64	6.00		22.37	90.6		8.44	1.39		5.18	83.5											46.0	23.0		85.7	50.0		3.0	0.50		10.16	7.34	7.33	0.00	1	2	
3		0.370	0.369		0	0	0	0	0	109	21.00		64.63	80.7		12.90	3.04		9.36	76.4						1.57		4.83		176.0	9.0		27.7	94.9		6.5	0.10		8.15	7.01	6.93	0.00	2	1	49.5
4		0.330	0.326		0	0	0	0	0	44	15.00		40.78	65.9		12.50	3.54		9.62	71.7										18.0	9.0		24.5	50.0		0.5	0.10		10.17	7.35	7.36	0.00	2	2	< 1.0
5	0.37	0.320	0.239		0	0	0	0	0			14.00			42.6			2.65			2.65						1.57		4.83			13.6			46.0	4.0	0.10		8.59	6.86	6.83	0.00	2	2	154.2
6	0.07	0.390	0.299		0	0	0	0	0																											3.0	1.00		7.38	7.49	7.32	0.00	2	2	
7		0.310	0.223		0	0	0	0	0																																	2	0	
8		0.290	0.269		0	0	0	0	0																																	2	1	
9	0.02	0.370	0.298		0	0	0	0	0	102	< 4.00		9.94	98.0		21.20	0.38		0.94	98.2										112.0	0.0		0.0	100.0		2.5	0.10		9.89	7.29	7.21	0.00	2	2	87.6
10		0.280	0.255		0	0	0	0	0	161	< 4.00		8.51	97.5		24.00	1.13		2.40	95.3										114.0	1.0		2.1	99.1		2.5	0.10		10.06	6.85	6.87	0.00	2	2	111.2
11		0.260	0.255		0	0	0	0	0	178	< 4.00		8.51	97.8		17.00	0.74		1.58	95.6						< 0.20		0.43		84.0	4.0		8.5	95.2		5.5	0.10		8.57	6.73	6.82	0.00	2	1	
12		0.300	0.209		0	0	0	0	0			4.00			9.0			0.75			1.64						0.20		0.43			1.7			2.8	3.5	0.10		10.96	6.85	6.89	0.00	1	2	38.8
13	0.06	0.300	0.212		0	0	0	0	0																											3.5	0.10		10.71	7.59	7.47	0.00	2	2	
14		0.290	0.204		0	0	0	0	0																																	2	2	
15	1.90	0.470	0.450		0	0	0	0	0																																	1	2	
16	0.79	1.280	1.196		0	0	0	0	0																					56.0	3.0		29.9	94.6		1.0	0.10		6.19	7.40	7.25	0.02	2	2	
17		0.710	0.706		0	0	0	0	0																					52.0	13.0		76.5	75.0		5.0	0.10		8.59	6.90	6.98	0.00	1	1	< 1.0
18		0.410	0.407		0	0	0	0	0	12	< 4.00		13.58	66.7		4.23	0.35		1.19	91.7						0.54		1.82		48.0	8.0		27.2	83.3		3.0	0.20		9.65	7.52	7.42	0.01	1	1	49.5
19		0.400	0.392		0	0	0	0	0	44	11.00		35.96	75.0		6.71	0.39		1.26	94.2									1.82			7.0			44.5	3.0	0.10		10.53	6.90	6.79	0.02	2	2	48.5
20		0.430	0.327		0	0	0	0	0	51	6.00		16.36	88.2		8.12	< 0.20		0.55	97.5																2.0	0.10		10.56	6.92	6.81	0.00	2	2	
21		0.310	0.303		0	0	0	0	0			7.00			21.9			0.31			0.88																					2	2	
22		0.290	0.226		0	0	0	0	0																											1.0	0.10		9.51	6.58	6.47	0.02	2	1	< 1.0
23		0.480	0.316		0	0	0	0	0	102	< 4.00		10.54	96.1		19.40	< 0.20		0.53	99.0										70.0	0.0		0.0	100.0		1.5	0.10		10.54	6.30	6.21	0.00	2	2	689.3
24		0.120	0.176		0	0	0	0	0																											1.0	0.10		10.66	7.00	7.33	0.01	2	2	
25	0.04	0.320	0.283		0	0	0	0	0																																	2	2	
26		0.290	0.257		0	0	0	0	0	144	4.00		8.57	97.2		21.30	0.35		0.74	98.4										62.0	2.0		4.3	96.8		1.0	0.10		8.82	6.72	6.76	0.01	2	2	55.1
27	0.19	0.390	0.302		0	0	0	0	0	169	4.00		10.07	97.6		21.10	0.27		0.67	98.7						< 0.20		0.50		136.0	1.0		2.5	99.3		3.0	0.10		9.75	7.45	7.34	0.00	2	2	
28	1.10	0.610	0.489		0	0	0	0	0																				0.50			1.0			2.2							2	1	
29	1.22	1.310	1.311		0	0	0	0	0																																	2	2	
30		0.720	0.718		0	0	0	0	0																											2.0	0.20		8.57	7.62	7.57	0.00	2	2	< 1.0
31		0.490	0.444		0	0	0	0	0																											1.0	0.10		9.86	6.67	6.99	0.02			106.3
TOTAL	6.02	13.760	12.372		0	0	0	0	0	1180	87.00		249.82			176.90	11.97		34.02			0.00		0.00		2.51		7.58		974.0	73.0		289.0			59.0	3.70	0.0	207.87	155.34	154.95	0.11	56	51	1394.0
AVERAGE	0.55	0.444	0.399							98	7.25		20.82	92.6		14.74	1.00		2.83	93.2		0.00		0.00		0.63		1.90		81.2	6.1		24.1	92.5		2.7	0.17	0.0	9.45	7.06	7.04	0.01	2	2	24.5
MAXIMUM	1.90	1.310	1.311							178	21.00	14.00	64.63	98.0	42.6	24.00	3.54	2.65	9.62	99.0	2.65	0.00	0.00	0.00	0.00	1.57	1.57	4.83	4.83	176.0	23.0	13.6	85.7	100.0	46.0	6.5	1.00	0.0	10.96	7.62	7.57	0.02	3	2	689.3
MINIMUM	0.02	0.120	0.176							12	4.00		8.51	65.9		4.23	0.20		0.53	71.7		0.00		0.00		0.20		0.43		18.0	0.0		0.0	50.0		0.5	0.10	0.0	6.19	6.30	6.21	0.00	1	0	1.0

REMARKS

CERTIFIED OPERATOR

John A. Gorman
PRINT

SIGNATUIRE

GRADE 3