



700 West Liberty Street | Louisville, KY 40203-1911
Phone: 502.540.6000 | LouisvilleMSD.org

January 12, 2021

Crystal Dennis
Permit Support Section
Surface Water Permits Branch
Division of Water
200 Fair Oaks Lane 4th Floor
Frankfort, KY 40601

Re: Morris Forman Water Quality Treatment Center
KPDES Permit No. KY0022411

Dear Ms. Dennis:

In accordance with the provisions of the KPDES Permit referenced above, the monthly Discharge Monitoring Report (DMR) and monthly Discharge (overflow) Reports for the reporting period December 1st through December 31st 2020 are provided through NetDMR. The Morris Forman Water Quality Treatment Center (MFWQTC) did not meet permit for 30 day BOD, 7 day BOD, 30 day TSS, 7 day TSS, and TSS percent removal reporting requirements.

Compromised solids handling equipment continue to contribute to our effluent exceedances. MSD has installed temporary dewatering services at a satellite facility. This temporary dewatering service will reduce the solids loading to the Morris Forman plant. Additionally an Emergency Design Build Project for new solids handling equipment will be installed and in service in the late spring of 2021.

Sampling for Acute Toxicity was performed on January 6, 2021 with passing results.

Should you have any questions, please contact me at (502) 540-6222.

Sincerely,

John Kessel
Assistant Director Treatment Facilities

Submission Note

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

Edit Check Errors

Parameter		Monitoring Location	Field	Type	Description	Acknowledge
Code	Name					
00530	Solids, total suspended	E - Secondary/Biological Process Complete	Quality or Concentration Sample Value 3	Soft	The provided sample value is outside the permit limit. Please verify that the value you have provided is correct. (Error Code: 1)	Yes
00530	Solids, total suspended	E - Secondary/Biological Process Complete	Quality or Concentration Sample Value 2	Soft	The provided sample value is outside the permit limit. Please verify that the value you have provided is correct. (Error Code: 1)	Yes
00310	BOD, 5-day, 20 deg. C	E - Secondary/Biological Process Complete	Quality or Concentration Sample Value 2	Soft	The provided sample value is outside the permit limit. Please verify that the value you have provided is correct. (Error Code: 1)	Yes
00310	BOD, 5-day, 20 deg. C	E - Secondary/Biological Process Complete	Quality or Concentration Sample Value 3	Soft	The provided sample value is outside the permit limit. Please verify that the value you have provided is correct. (Error Code: 1)	Yes
81011	Solids, suspended percent removal	K - Percent Removal	Quality or Concentration Sample Value 1	Soft	The provided sample value is outside the permit limit. Please verify that the value you have provided is correct. (Error Code: 1)	Yes

Comments**Attachments**

Name	Type	Size
MFWQTCoverletter1220.Pdf	pdf	41510.0
MorrisFormanOverflowreportJan2021.pdf	pdf	27195.0
MFWQTCMOR1220.Pdf	pdf	130262.0

Report Last Saved By**Morris Forman WQTC MSD**

User: kessel@louisvillemsd.org
 Name: John Kessel
 E-Mail: kessel@louisvillemsd.org
 Date/Time: 2021-01-19 11:36 (Time Zone: -05:00)

Report Last Signed By

User: kessel@louisvillemsd.org
 Name: John Kessel
 E-Mail: kessel@louisvillemsd.org
 Date/Time: 2021-01-19 11:38 (Time Zone: -05:00)

DMR Copy of Record

Permit			
Permit #:	KY0022411	Permittee:	Morris Forman WQTC MSD
Major:	Yes	Permittee Address:	700 W Liberty St Louisville, KY 40203
Permitted Feature:	001 External Outfall	Discharge:	001-B SECONDARY BYPASS
Facility:		Facility Location:	MORRIS FORMAN WQTC MSD 4522 ALGONQUIN PKWY LOUISVILLE, KY 40211

Report Dates & Status			
Monitoring Period:	From 12/01/20 to 12/31/20	DMR Due Date:	01/28/21
Status:	NetDMR Validated		

Considerations for Form Completion
 MONITORING DURING PERIODS OF SECONDARY BYPASS IN ADDITION TO REGULAR MONITORING.1 - FINAL EFFLUENTF - SECONDARY BYPASS AFTER PRIMARYTREATMENT.

Principal Executive Officer			
First Name:	James A.	Title:	Executive Director
Last Name:	Parrott	Telephone:	502-540-6000

No Data Indicator (NODI)
 Form NODI: --

Code	Parameter Name	Monitoring Location	Season #	Param. NODI	Quantity or Loading					Quality or Concentration					# of Ex.	Frequency of Analysis	Sample Type	
					Qualifier 1	Value 1	Qualifier 2	Value 2	Units	Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3				Value 3
00310	BOD, 5-day, 20 deg. C	1 - Effluent Gross	0	--	Sample						=	173.0	=	241.0	19 - mg/L	0	05/30 - 5 Times Every Month WH/DS - When Discharging	CP - COMPOS CP - COMPOS
					Permit Req.							Req Mon MO AVG		Req Mon MX WK AV	19 - mg/L			
					Value NODI													
00310	BOD, 5-day, 20 deg. C	F - Primary/Preliminary Process Complete	0	--	Sample						=	199.0	=	284.0	19 - mg/L	0	05/30 - 5 Times Every Month WH/DS - When Discharging	CP - COMPOS CP - COMPOS
					Permit Req.							Req Mon MO AVG		Req Mon MX WK AV	19 - mg/L			
					Value NODI													
00530	Solids, total suspended	1 - Effluent Gross	0	--	Sample						=	321.0	=	444.0	19 - mg/L	0	05/30 - 5 Times Every Month WH/DS - When Discharging	CP - COMPOS CP - COMPOS
					Permit Req.							Req Mon MO AVG		Req Mon MX WK AV	19 - mg/L			
					Value NODI													
00530	Solids, total suspended	F - Primary/Preliminary Process Complete	0	--	Sample						=	146.0	=	165.0	19 - mg/L	0	05/30 - 5 Times Every Month WH/DS - When Discharging	CP - COMPOS CP - COMPOS
					Permit Req.							Req Mon MO AVG		Req Mon MX WK AV	19 - mg/L			
					Value NODI													
00610	Nitrogen, ammonia total [as N]	1 - Effluent Gross	0	--	Sample						=	10.9	=	11.2	19 - mg/L	0	05/30 - 5 Times Every Month WH/DS - When Discharging	CP - COMPOS CP - COMPOS
					Permit Req.							Req Mon MO AVG		Req Mon MX WK AV	19 - mg/L			
					Value NODI													
00610	Nitrogen, ammonia total [as N]	F - Primary/Preliminary Process Complete	0	--	Sample						=	11.9	=	14.4	19 - mg/L	0	05/30 - 5 Times Every Month WH/DS - When Discharging	CP - COMPOS CP - COMPOS
					Permit Req.							Req Mon MO AVG		Req Mon MX WK AV	19 - mg/L			
					Value NODI													
50050	Flow, in conduit or thru treatment plant	F - Primary/Preliminary Process Complete	0	--	Sample	=	21.0	=	19.0	03 - MGD					0	05/30 - 5 Times Every Month WH/DS - When Discharging	CN - CONTIN CN - CONTIN	
					Permit Req.		Req Mon MO AVG		Req Mon MX WK AV	03 - MGD								
					Value NODI													

Submission Note
 If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

Edit Check Errors
 No errors.

Comments

Attachments
 No attachments.

Report Last Saved By
 Morris Forman WQTC MSD

User: kessel@louisvillemsd.org
 Name: John Kessel
 E-Mail: kessel@louisvillemsd.org
 Date/Time: 2021-01-19 11:34 (Time Zone: -05:00)

Report Last Signed By
 User: kessel@louisvillemsd.org

Name: John Kessel
E-Mail: kessel@louisvillemsd.org
Date/Time: 2021-01-19 11:38 (Time Zone: -05:00)

DMR Copy of Record

Permit			
Permit #:	KY0022411	Permittee:	Morris Forman WQTC MSD
Major:	Yes	Permittee Address:	700 W Liberty St Louisville, KY 40203
Permitted Feature:	001 External Outfall	Discharge:	001-Y BIOMONITORING/ONCE PER QUARTER
Facility:		Facility:	MORRIS FORMAN WQTC MSD
		Facility Location:	4522 ALGONQUIN PKWY LOUISVILLE, KY 40211

Report Dates & Status			
Monitoring Period:	From 10/01/20 to 12/31/20	DMR Due Date:	01/28/21
		Status:	NetDMR Validated

Considerations for Form Completion

Principal Executive Officer			
First Name:	James A.	Title:	Executive Director
Last Name:	Parrott	Telephone:	502-540-6000

No Data Indicator (NODI)
Form NODI: --

Code	Parameter Name	Monitoring Location	Season #	Param. NODI		Quantity or Loading					Quality or Concentration					# of Ex.	Frequency of Analysis	Sample Type
						Qualifier 1	Value 1	Qualifier 2	Value 2	Units	Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3			
00900	Hardness, total [as CaCO3]	1 - Effluent Gross	0	--	Sample						=	361.0	=	361.0	19 - mg/L		01/90 - Quarterly	CP - COMPOS
					Permit Req.						Req Mon MO AVG		Req Mon DAILY MX	19 - mg/L				
					Value NODI													
01025	Cadmium, dissolved [as Cd]	1 - Effluent Gross	0	--	Sample						<	0.01	<	0.01	19 - mg/L		01/90 - Quarterly	CP - COMPOS
					Permit Req.						Req Mon MO AVG		Req Mon DAILY MX	19 - mg/L				
					Value NODI													
01040	Copper, dissolved [as Cu]	1 - Effluent Gross	0	--	Sample						<	0.01	<	0.01	19 - mg/L		01/90 - Quarterly	CP - COMPOS
					Permit Req.						Req Mon MO AVG		Req Mon DAILY MX	19 - mg/L				
					Value NODI													
01049	Lead, dissolved [as Pb]	1 - Effluent Gross	0	--	Sample						<	0.05	<	0.05	19 - mg/L		01/90 - Quarterly	CP - COMPOS
					Permit Req.						Req Mon MO AVG		Req Mon DAILY MX	19 - mg/L				
					Value NODI													
01090	Zinc, dissolved [as Zn]	1 - Effluent Gross	0	--	Sample						=	0.06	=	0.06	19 - mg/L		01/90 - Quarterly	CP - COMPOS
					Permit Req.						Req Mon MO AVG		Req Mon DAILY MX	19 - mg/L				
					Value NODI													
01094	Zinc, total recoverable	1 - Effluent Gross	0	--	Sample						=	0.06	=	0.06	19 - mg/L		01/90 - Quarterly	CP - COMPOS
					Permit Req.						Req Mon MO AVG		Req Mon DAILY MX	19 - mg/L				
					Value NODI													
01113	Cadmium, total recoverable	1 - Effluent Gross	0	--	Sample						<	0.01	<	0.01	19 - mg/L		01/90 - Quarterly	CP - COMPOS
					Permit Req.						Req Mon MO AVG		Req Mon DAILY MX	19 - mg/L				
					Value NODI													
01114	Lead, total recoverable	1 - Effluent Gross	0	--	Sample						<	0.05	<	0.05	19 - mg/L		01/90 - Quarterly	CP - COMPOS
					Permit Req.						Req Mon MO AVG		Req Mon DAILY MX	19 - mg/L				
					Value NODI													
01119	Copper, total recoverable	1 - Effluent Gross	0	--	Sample						<	0.01	<	0.01	19 - mg/L		01/90 - Quarterly	CP - COMPOS
					Permit Req.						Req Mon MO AVG		Req Mon DAILY MX	19 - mg/L				
					Value NODI													
61406	Toxicity, final conc toxicity units	1 - Effluent Gross	0	--	Sample								<	1.0	2F - tox acute		01/90 - Quarterly	G2 - GRAB-2
					Permit Req.								<=	1.0 DAILY MX	2F - tox acute			
					Value NODI													

Submission Note
If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

Edit Check Errors
No errors.

Comments

Attachments
No attachments.

Report Last Saved By

Morris Forman WQTC MSD

User: kessel@louisvillemsd.org
Name: John Kessel
E-Mail: kessel@louisvillemsd.org
Date/Time: 2021-01-19 11:37 (Time Zone: -05:00)

Report Last Signed By

User: kessel@louisvillemsd.org
Name: John Kessel
E-Mail: kessel@louisvillemsd.org
Date/Time: 2021-01-19 11:39 (Time Zone: -05:00)



KPDES #	Facility ID	Water Quality Treatment Center	Receiving Stream of Treatment Center	Region
KY0022411	MSD0278	MORRIS FORMAN		WEST

Facility Type	Facility ID	Facility Address	If Pump Station, Name of Pump Station:	Receiving Stream	Discharge to
SMHSewer Manhole	00885	11339 OLDE SAGE CT		MIDDLE FORK BEARGRASS	GROUND

Activity Code / Description	WO #	Ref No	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
: DISDW: DRY WEATHER DISCHARGE	3330634		12/22/2020	BIVIN	BIVIN	REPAIRED - ISSUE RESOLVED	12/22/2020	GREASE BLOCKAGE	UNAUTHORIZED DISCHARGE- WATERS	12/22/20 04:42 PM	MAIN

Discharge Reporting:

Discharge Amount:	200 GAL
Cause:	ROOTS AND GREASE AND WIPES CREATING BLOCKAGE.
Clean Up:	MSD CLEANED THE AREA.
Control Zone:	MSD ADVISED CUSTOMER TO AVOID SEWAGE.
Impact:	NONE OBSERVED BY MSD BACKUP REPORTED PER CUSTOMER FLOOR DRAIN.
Repair:	WE PLACED TVI.
Public Notification:	THERE IS ON SITE NOTIFICATION.

Notifications:

12/23/20 1:00 AM	DISNOT	EMAIL NOTIFICATION OF UNAUTHORIZED DISCHARGE SENT TO:DISCHARGENOTICES@LOUISVILLEMSD.ORG, SAYRE.DENNIS@EPAMAIL.EPA.GOV
12/23/20 1:00 AM	DISSNO	WAITING TO COMPLETE THE DISCHARGE INFORMATION



KPDES #	Facility ID	Water Quality Treatment Center	Receiving Stream of Treatment Center	Region
KY0022411	MSD0278	MORRIS FORMAN		WEST

Facility Type	Facility ID	Facility Address	If Pump Station, Name of Pump Station:	Receiving Stream	Discharge to
SMHSewer Manhole	08935-SM	1001 BRECKENRIDGE LN		MIDDLE FORK BEARGRASS	STREAM

<u>Activity Code / Description</u>	<u>WO #</u>	<u>Ref No</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
: DISREV: RAIN EVENT DISCHARGE	3333636		12/31/2020	DAVIS BROWNMITCHELL		DOCUMENTE D	11/29/2001	LACK OF SYSTEM	UNAUTHORIZED DISCHARGE-	01/02/21 02:00 AM	MAIN

Discharge Reporting:

Discharge Amount:	1,700,000 GAL
Cause:	LACK OF SYSTEM CAPACITY HEAVY RAIN.
Clean Up:	NO CLEANUP REQUIRED DISCHARGE PIPE IS SUBMERGED AND DISCHARGES DIRECTLY IN TO THE CREEK.
Control Zone:	CONTROL ZONE WAS NOT ESTABLISHE THE PIPE DISCHARGES DIRECTLY TO STREAM CREEK.
Impact:	NONE OBSERVED OVER FLOW NOTIFICATION RECEIVED FROM REMOTE DISCHARGE ALARM.
Repair:	LOCATION INCLUDED IN IOAP.
Public Notification:	PERMANENT SIGNS ALONG THE CREEK AVOID CONTACT WITH DISCHARGED CONTENT.

Notifications:

12/31/20 1:00 PM	DISNOT	EMAIL NOTIFICATION OF UNAUTHORIZED DISCHARGE SENT TO:DISCHARGENOTICES@LOUISVILLEMSD.ORG, SAYRE.DENNIS@EPAMAIL.EPA.GOV
12/31/20 1:00 PM	DISSNO	WAITING TO COMPLETE THE DISCHARGE INFORMATION

KPDES #	Facility ID	Water Quality Treatment Center	Receiving Stream of Treatment Center	Region
KY0022411	MSD0278	MORRIS FORMAN		WEST

Facility Type	Facility ID	Facility Address	If Pump Station, Name of Pump Station:	Receiving Stream	Discharge to
SMHSewer Manhole	28336	9707 WILLOWWOOD WAY		CHENOWETH RUN	DITCH

Activity Code / Description	WO #	Ref No	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
: DISREV: RAIN EVENT DISCHARGE	3333640		12/31/2020	DAVIS BROWNMITCHELL		DOCUMENTE D	08/30/2005	LACK OF SYSTEM	UNAUTHORIZED DISCHARGE-	01/01/21 04:45 PM	MAIN

Discharge Reporting:

Discharge Amount:	20,251 GAL
Cause:	LACK OF SYSTEM CAPACITY HEAVY RAIN.
Clean Up:	WO#3333935
Control Zone:	BARRICADES AND TEMP SIGNS PLACED AROUND DISCHARGE SITE.
Impact:	MANHOLE DISCHARGING.
Repair:	LOCATION INCLUDED IN IOAP.
Public Notification:	PUBLIC NOTIFIED THROUGH TEMP SIGNS AT DISCHARGE SITE AND DOOR HANGERS TO AVOID CONTACT WITH DISCHARGED CONTENT.

Notifications:

12/31/20 1:00 PM	DISNOT	EMAIL NOTIFICATION OF UNAUTHORIZED DISCHARGE SENT TO:DISCHARGENOTICES@LOUISVILLEMSD.ORG, SAYRE.DENNIS@EPAMAIL.EPA.GOV
12/31/20 1:00 PM	DISSNO	WAITING TO COMPLETE THE DISCHARGE INFORMATION



KPDES #	Facility ID	Water Quality Treatment Center	Receiving Stream of Treatment Center	Region
KY0022411	MSD0278	MORRIS FORMAN		WEST

Facility Type	Facility ID	Facility Address	If Pump Station, Name of Pump Station:	Receiving Stream	Discharge to
SMHSewer Manhole	28453	3402 CHARLANE PKY		CHENOWETH RUN	DITCH

<u>Activity Code / Description</u>	<u>WO #</u>	<u>Ref No</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
: DISREV: RAIN EVENT DISCHARGE	3333639		12/31/2020	DAVIS BROWNMITCHELL		DOCUMENTE D	10/28/2015	LACK OF SYSTEM	UNAUTHORIZED DISCHARGE-	01/02/21 07:30 AM	MAIN

Discharge Reporting:

Discharge Amount:	54,250 GAL
Cause:	LACK OF SYSTEM CAPACITY HEAVY RAIN.
Clean Up:	WO#3333936
Control Zone:	BARRICADES AND TEMP SIGNS PLACED AROUND DISCHARGE SITE.
Impact:	MANHOLE DISCHARGING.
Repair:	LOCATION INCLUDED IN IOAP.
Public Notification:	PUBLIC NOTIFIED THROUGH TEMP SIGNS AT DISCHARGE SITE AND DOOR HANGERS TO AVOID CONTACT WITH DISCHARGED CONTENT.

Notifications:

12/31/20 1:00 PM	DISNOT	EMAIL NOTIFICATION OF UNAUTHORIZED DISCHARGE SENT TO:DISCHARGENOTICES@LOUISVILLEMSD.ORG, SAYRE.DENNIS@EPAMAIL.EPA.GOV
12/31/20 1:00 PM	DISSNO	WAITING TO COMPLETE THE DISCHARGE INFORMATION



KPDES #	Facility ID	Water Quality Treatment Center	Receiving Stream of Treatment Center	Region
KY0022411	MSD0278	MORRIS FORMAN		WEST

Facility Type	Facility ID	Facility Address	If Pump Station, Name of Pump Station:	Receiving Stream	Discharge to
SMHSewer Manhole	IS021A-SI	1201 OLD CANNONS LN		MIDDLE FORK BEARGRASS	STREAM

<u>Activity Code / Description</u>	<u>WO #</u>	<u>Ref No</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
: DISREV: RAIN EVENT DISCHARGE	3333637		12/30/2020	DAVIS BROWNMITCHELL		DOCUMENTE D	08/01/1969	LACK OF SYSTEM	UNAUTHORIZED DISCHARGE-	01/02/21 07:15 PM	MAIN

Discharge Reporting:

Discharge Amount:	8,500,000 GAL
Cause:	LACK OF SYSTEM CAPACITY HEAVY RAIN.
Clean Up:	NO CLEANUP REQUIRED DISCHARGE PIPE IS SUBMERGED AND DISCHARGES DIRECTLY IN TO THE CREEK.
Control Zone:	CONTROL ZONE WAS NOT ESTABLISHE THE PIPE DISCHARGES DIRECTLY TO STREAM CREEK.
Impact:	NONE OBSERVED OVER FLOW NOTIFICATION RECEIVED FROM REMOTE DISCHARGE ALARM.
Repair:	LOCATION INCLUDED IN IOAP.
Public Notification:	PERMANENT SIGNS ALONG THE CREEK AVOID CONTACT WITH DISCHARGED CONTENT.

Notifications:

12/31/20 1:00 PM	DISNOT	EMAIL NOTIFICATION OF UNAUTHORIZED DISCHARGE SENT TO:DISCHARGENOTICES@LOUISVILLEMSD.ORG, SAYRE.DENNIS@EPAMAIL.EPA.GOV
12/31/20 1:00 PM	DISSNO	WAITING TO COMPLETE THE DISCHARGE INFORMATION

Total Facilities Printed: 5

Total Work Orders Printed: 5

Format: Month/Day/Year

Enter Start Date : 12/1/20

MORRIS FORMAN WATER QUALITY TREATMENT CENTER JEFFERSON COUNTY, KENTUCKY December-20
 KPDES PERMIT NO. KY0022411 PLANT CAPACITY - 120 MGD RECEIVING STREAM-OHIO RIVER

DATE	WASTEWATER FLOWS (Million Gallons)				TEMP (DEGF)		pH		SETS (ML)		TSS (mg/L)		5-DAY BOD (mg/L)			RETURN SLUDGE			AERATION BASIN					ACTIVE		CHLORINATION			FINAL EFFLUENT	
	Final	Sec.	Bypass	0.00	raw	final	raw	final	raw	final	raw	final	raw	final	prim.	FLOW	TSS	TVSS	D.O	MLSS	MLVSS	SET	SVI	Sludge Wasted	Primary Sludge	Chlorine Dosage	Residual	Fecal Coliform	NH3-N	Pump.
	Effluent	Effluent																												
12/1/20	95.08	95.08	0.00	58	58	7.2	6.7	5.5	0.1	194	29	250	211	16	26.7	12.2	10.5	6.0	3.8	3.2	322	85	0.56	0.35	4.54	0.016	67	6.2	0.0	
12/2/20	77.37	77.37	0.00	58	58	7.1	6.6	6	0.1	236	13	363	222	11	26.6	13.4	11.5	5.9	3.9	3.3	471	121	0.52	0.32	1.65	0.016	130	6.3	0.0	
12/3/20	75.37	75.37	0.00	57	57	6.9	6.6	7	0.1	245	19	391	259	18	26.7	14.2	12.2	5.4	8.1	7.0	546	69	0.31	0.25	1.65	0.016	80	7.7	0.0	
12/4/20	73.44	73.44	0.00	60	60	6.9	6.7	8.5	0.1	300	23	399	243	16	26.6	13.9	12.3	5.3	4.8	4.2	501	105	0.55	0.18	1.29	0.016	70	8.3	0.0	
12/5/20	63.55	63.55	0.00	61	61	6.9	6.5	10	0.1	322	24	388	283	20	26.8	14.4	12.7	5.4	5.3	4.6	578	110	0.00	0.07	1.94	0.016	150	4.6	0.0	
12/6/20	61.64	61.64	0.00	61	61	7.2	6.3	25	0.1	230	39	232	192	29	26.8	14.6	12.7	5.3	5.1	4.4	544	108	0.19	0.06	1.94	0.016	37	5.2	0.0	
12/7/20	61.46	61.46	0.00	57	57	7.2	6.4	9.5	0.1	320	68	297	190	55	26.6	15.1	13.0	5.4	6.3	5.3	569	93	0.67	0.29	1.54	0.016	9	12.2	0.0	
12/8/20	61.09	61.09	0.00	60	60	7	6.7	9.5	0.2	352	68	462	252	42	26.4	13.9	12.0	5.8	5.7	4.9	588	104	0.56	0.33	1.57	0.016	28	15.2	0.0	
12/9/20	59.09	59.09	0.00	62	62	6.9	6.6	11	0.1	467	110	746	556	147	26.2	14.7	12.8	5.5	6.2	5.4	527	86	0.78	0.35	1.80	0.016	2000	14.6	0.0	
12/10/20	56.81	56.81	0.00	62	62	6.9	6.6	13	0.2	444	60	466	293	46	26.5	15.3	13.8	5.5	5.1	4.6	517	102	0.77	0.34	1.88	0.016	580	13.2	0.0	
12/11/20	58.05	58.05	0.00	61	61	7	6.5	11	0.2	355	92	618	436	67	26.8	15.5	13.8	5.5	6.3	5.6	622	104	0.37	0.16	1.98	0.016	127	12.4	0.0	
12/12/20	69.91	69.91	0.00	64	64	6.8	6.4	19	3	513	236	550	490	161	26.9	15.4	13.9	6.1	6.0	5.4	556	93	0.00	0.07	2.85	0.016	820	9.1	0.0	
12/13/20	57.71	57.71	0.00	60	60	7.1	6.2	9	0.2	288	38	372	276	38	26.9	15.5	13.8	6.1	6.8	6.0	660	97	0.28	0.08	2.85	0.016	740	3.1	0.0	
12/14/20	65.47	65.47	0.00	58	58	7.2	6.5	10	0.5	372	112	372	215	60	26.8	15.4	13.4	6.0	6.3	5.6	627	100	0.44	0.26	2.07	0.016	70	7.9	0.0	
12/15/20	56.24	56.24	0.00	55	55	7	6.5	13	0.1	380	30	423	276	24	26.8	15.7	13.6	5.0	5.7	4.9	607	108	0.32	0.36	1.97	0.016	39	12.6	0.0	
12/16/20	94.67	89.50	5.17	57	57	6.9	6.5	14	38	388	540	460	356	276	26.7	16.5	14.2	4.9	5.6	4.8	573	103	0.77	0.44	3.80	0.016	25	17.7	0.0	
12/17/20	71.01	71.01	0.00	56	56	7.1	6.5	8	0.2	310	112	371	242	57	26.7	16.2	14.4	6.1	5.4	4.9	542	99	0.52	0.39	3.70	0.016	87	10	0.0	
12/18/20	60.23	60.23	0.00	57	57	7.1	6.6	8	0.1	274	36	464	279	21	26.0	15.6	13.8	5.9	3.4	3.1	669	196	0.37	0.23	2.33	0.016	77	8.3	0.0	
12/19/20	60.97	60.97	0.00	58	58	7.1	6.5	0.9	0.2	332	81	433	314	44	25.6	14.9	13.3	6.5	5.5	4.9	650	118	0.00	0.06	1.79	0.016	164	4.5	0.0	
12/20/20	94.31	92.06	2.25	57	57	7	6.4	10	14	308	348	252	211	205	26.7	15.1	13.4	6.8	5.1	4.5	504	99	0.09	0.07	2.33	0.016	64	4.7	0.0	
12/21/20	70.79	70.79	0.00	61	61	7.1	6.5	9	0.1	256	35	348	203	30	26.4	15.0	13.8	6.5	5.3	4.9	633	119	0.81	0.46	1.74	0.016	4	9.7	0.0	
12/22/20	60.39	60.39	0.00	59	59	6.9	6.6	8	0.1	280	34	483	324	33	26.5	15.0	13.6	6.4	5.5	4.9	651	118	0.60	0.42	1.94	0.016	4	12.3	0.0	
12/23/20	62.72	62.72	0.00	60	60	7.4	6.5	8	0.2	238	34	476	334	28	26.6	15.1	13.2	5.3	5.5	4.7	650	120	0.62	0.34	2.27	0.016	67	10.1	0.0	
12/24/20	118.95	99.92	19.03	54	54	7.1	6.6	10	17	222	397	209	162	226	26.3	15.3	13.4	6.3	4.8	4.5	471	97	0.27	0.16	4.40	0.016	4	7.3	0.0	
12/25/20	61.96	61.96	0.00	49	49	7.2	6.6	4.8	0.1	108	32	106	67	18	26.5	14.9	13.1	6.5	4.8	4.2	607	126	0.00	0.01	4.40	0.016	45	3.9	0.0	
12/26/20	62.89	62.89	0.00	51	51	7	6.5	6.5	0.3	136	118	154	77	43	26.6	14.6	13.0	7.5	4.8	4.3	614	127	0.00	0.01	1.18	0.016	27	8.1	14.0	
12/27/20	62.39	62.39	0.00	57	57	7.3	6.5	7.5	1	124	150	134	76	68	25.8	12.8	11.7	7.7	4.5	4.1	558	124	0.28	0.08	1.27	0.016	31	11	24.0	
12/28/20	64.72	64.72	0.00	58	58	7.1	6.6	7	0.1	180	20	179	106	13	25.5	13.5	11.3	7.6	4.9	4.2	473	98	0.72	0.39	1.27	0.016	7	17	24.0	
12/29/20	62.12	62.12	0.00	57	57	7.2	6.7	10	0.1	232	22	210	109	12	26.1	13.9	12.3	6.9	5.9	5.1	507	86	0.69	0.48	1.19	0.016	4	20.6	24.0	
12/30/20	118.86	89.37	29.49	57	57	7.2	6.7	9.5	2.5	269	168	191	172	90	26.4	13.0	11.6	6.2	4.5	4.1	482	106	0.63	0.37	3.23	0.016	17	19.9	24.0	
12/31/20	184.58	135.57	49.01	51	51	7.2	6.7	4.5	2.3	112	154	130	92	70	26.3	12.4	10.8	11.0	2.8	2.4	261	94	0.37	0.16	4.72	0.016	4	5.1	24.0	
Sum	2303.84	2198.89	104.95												820.8								13.07	7.52					134.0	
Average	74.32	70.93	20.99	60	60	7.1	6.5	9.4	2.6	283	105	353	243	64	26.5	14.6	12.9	6.2	5.3	4.6	551	107	0.42	0.24	2.36	0.016	47	10.0		

SEWER CONNECTIONS

148073 TIMES 4 =

592292 SEWER POPULATION

387

112322
563045
159695

Authorized Agent

Certification No. 26893

Month of Dec-20

Average Flow

Primary	Battery A	Battery B	Battery C
Secondary			

SETTLING TANKS

Average Flow (MGD) 74.32 16.28 21.07 8.98

Tanks in Service 4.00 8.0 8.0 4.0

Surface Area (ft.2) 77000.00 68974.63 34423.11

Volume (MG) 8.33 7.07 7.07 3.53

Weir Length (ft.) 2860.00 2859.05 1426.67

Avg. Weir Overflow (GPD/Ft) 25868.70 5695.08 7371.66 6295.00

Avg. Settling Rate (GPD/ft2) 960.84 407.52 450.50 406.69

Avg. Detention Time 2.70 10.42 8.05 9.42

AERATION TANKS

Battery A Battery B Battery C

Volume (Gallons) 4200000 4200000 2100000

Avg. Flow (MGD) 28.11 31.07 14.00

Avg. Detention Time (Hours) 6.19 4.78 5.61

CHLORINE CONTACT CHAMBERS

Contact Chambers in Use 2.0

Volume (Gallons) 2340000

Avg. Detention Time (Hours) 1.72

Remarks: BY-PASS REPORTS (See Attached)