



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

July 22, 2020

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 June 1st to June 30th 2020 are provided through NetDMR. The Morris Forman Water Quality Treatment Center (MFWQTC) did not meet 30 day TSS, 30 day BOD, 7 day TSS, 7 day BOD, and TSS percent removal for the reporting period.

Compromised solids handling equipment is contributing to our effluent exceedances. MSD has contracted with a third party for temporary dewatering services. This temporary dewatering service will reduce the solids loading to the Morris Forman plant.

Please note: There was an error in our database for the plant flows for June 11th. As a result the flows were manually totaled from the database.

Additionally, quarterly Acute Toxicity testing was performed on July 1, 2020 on the final effluent with a passing result.

Should you have any questions, please contact me at (502) 540-6793.

Sincerely,

Alex E. Novak, P.E.
Treatment Facilities Director

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 | | | | | |
| 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 |
| 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 |
| 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 |
| 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 |

Comments**Attachments**

| Name | Type | Size |
|------------------------------|------|----------|
| MFWQTCoverletter062020.Pdf | pdf | 43354.0 |
| MorrisFormanBypassReport.pdf | pdf | 19250.0 |
| MFWQTCMOR062020.pdf | pdf | 115513.0 |

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

User: kessel@louisvillemsd.org
 Name: John Kessel
 E-Mail: kessel@louisvillemsd.org
 Date/Time: 2020-07-27 07:11 (Time Zone: -04:00)

Report Last Signed By

User: kessel@louisvillemsd.org
 Name: John Kessel
 E-Mail: kessel@louisvillemsd.org
 Date/Time: 2020-07-27 07:11 (Time Zone: -04:00)

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 04/01/20 to 06/30/20 | DMR Due Date: | 07/28/20 |
| 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 | | | | | | = | 452.0 | = | 452.0 | 19 - mg/L | 0 | 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 | 0 | 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 | | | | | | = | 0.05 | = | 0.05 | 19 - mg/L | 0 | 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 | 0 | 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 | 0 | 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 | 0 | 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 | 0 | 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 | 0 | 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 | 0 | 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 | 0 | 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: 2020-07-27 07:11 (Time Zone: -04:00)

Report Last Signed By

User: kessel@louisvillemsd.org
Name: John Kessel
E-Mail: kessel@louisvillemsd.org
Date/Time: 2020-07-27 07:11 (Time Zone: -04:00)

DMR Copy of Record

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

| | | | | | |
|----------------------------------|---------------------------|---------------|----------|---------|------------------|
| Report Dates & Status | | | | | |
| Monitoring Period: | From 06/01/20 to 06/30/20 | DMR Due Date: | 07/28/20 | 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 | Telephone: | 502-540-6000 |
| Last Name: | Parrott | | | | |

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 | | | | | | = | 72.0 | = | 292.0 | 19 - mg/L | 0 | 11/30 - 11 Per 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 | | | | | | = | 167.0 | = | 280.0 | 19 - mg/L | 0 | 11/30 - 11 Per 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 | | | | | | = | 111.0 | = | 405.0 | 19 - mg/L | 0 | 11/30 - 11 Per 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 | | | | | | = | 151.0 | = | 223.0 | 19 - mg/L | 0 | 11/30 - 11 Per 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 | | | | | | = | 10.7 | = | 14.8 | 19 - mg/L | 0 | 11/30 - 11 Per 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 | | | | | | = | 13.0 | = | 19.6 | 19 - mg/L | 0 | 11/30 - 11 Per 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 | = | 17.8 | = | 15.5 | 03 - MGD | | | | | 0 | 11/30 - 11 Per 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@louisvillemd.org
Name: John Kessel
E-Mail: kessel@louisvillemd.org
Date/Time: 2020-07-27 07:10 (Time Zone: -04:00)

Report Last Signed By
User: kessel@louisvillemd.org

Name: John Kessel
E-Mail: kessel@louisvillemsd.org
Date/Time: 2020-07-27 07:11 (Time Zone: -04:00)



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

| Facility Type | Facility ID | Facility Address | If Pump Station, Name of Pump Station: | Receiving Stream | Discharge to |
|------------------|-------------|-------------------|--|------------------|--------------|
| SMHSewer Manhole | 28340 | 3620 CHARLANE PKY | | CHENOWETH RUN | GROUND |

| <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 | 3275987 | | 06/30/2020 | DAVIS BROWNMITCHELL | | DOCUMENTE D | 01/03/2005 | LACK OF SYSTEM | UNAUTHORIZED DISCHARGE- | 06/30/20 09:15 AM | MAIN |

Discharge Reporting:

| | |
|----------------------|--|
| Discharge Amount: | 3,000 GAL |
| Cause: | LACK OF SYSTEM CAPACITY HEAVY RAIN. |
| Clean Up: | WO#3276094 |
| 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 DISCHARGED CONTENT. |

Notifications:

| | | |
|-----------------|--------|---|
| 6/30/20 1:00 PM | DISNOT | EMAIL NOTIFICATION OF UNAUTHORIZED DISCHARGE SENT TO:DISCHARGENOTICES@LOUISVILLEMSD.ORG, SAYRE.DENNIS@EPAMAIL.EPA.GOV |
| 6/30/20 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 | OHIO RIVER | 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 |

| Activity Code / Description | WO # | Ref No | Initiated | Initiated By | Assigned To | Disch Status | Event Date | Problem | Result | Completed | Condition |
|--------------------------------|---------|--------|------------|--------------|-------------|--------------|------------|----------------|-------------------------|-------------------|-----------|
| : DISREV: RAIN EVENT DISCHARGE | 3275985 | | 06/30/2020 | DAVIS BROWN | MITCHELL | DOCUMENTE D | 10/28/2015 | LACK OF SYSTEM | UNAUTHORIZED DISCHARGE- | 06/30/20 09:00 AM | MAIN |

Discharge Reporting:

| | |
|----------------------|--|
| Discharge Amount: | 2,750 GAL |
| Cause: | LACK OF SYSTEM CAPACITY HEAVY RAIN. |
| Clean Up: | WO#3276093 |
| 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 DISCHARGED CONTENT. |

Notifications:

| | | |
|-----------------|--------|---|
| 6/30/20 1:00 PM | DISNOT | EMAIL NOTIFICATION OF UNAUTHORIZED DISCHARGE SENT TO:DISCHARGENOTICES@LOUISVILLEMSD.ORG, SAYRE.DENNIS@EPAMAIL.EPA.GOV |
| 6/30/20 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 | OHIO RIVER | WEST |

| | | | | | |
|-----------------------|--------------------|---------------------------|---|-------------------------|---------------------|
| Facility Type | Facility ID | Facility Address | If Pump Station, Name of Pump Station: | Receiving Stream | Discharge to |
| SLSSewer Lift Station | MSD0007-PS | 334 MOCKINGBIRD VALLEY RD | MOCKINGBIRD VALLEY | MUDDY FORK BEARGRASS | 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> |
|------------------------------------|-------------|---------------|------------------|---------------------|--------------------|---------------------------|-------------------|--------------------|-------------------------------|-------------------|------------------|
| : DISDW: DRY WEATHER DISCHARGE | 3274984 | | 06/23/2020 | GRAY JR | BRAZEL | REPAIRED - ISSUE RESOLVED | 06/23/2020 | MECHANICAL FAILURE | UNAUTHORIZED DISCHARGE-WATERS | 06/23/20 10:50 PM | |

Discharge Reporting:

| | |
|----------------------|--|
| Discharge Amount: | 350 GAL |
| Cause: | MECHANICAL FAILURE, PUMP FAIL TO START. |
| Clean Up: | CLEANED AND SANITIZED THE IMPACTED AREA. |
| Control Zone: | PLACED TEMPORARY SIGNS AROUND THE IMPACTED AREA. |
| Impact: | DISCOLORATION OF STREAM. |
| Repair: | PUMP BATTERY CABLE REPAIRED AND PUMP STARTED. |
| Public Notification: | ADVISED CUSTOMER ON SITE. |

Notifications:

| | | |
|-----------------|--------|---|
| 6/24/20 1:00 AM | DISNOT | EMAIL NOTIFICATION OF UNAUTHORIZED DISCHARGE SENT TO:DISCHARGENOTICES@LOUISVILLEMSD.ORG, SAYRE.DENNIS@EPAMAIL.EPA.GOV |
|-----------------|--------|---|

Total Facilities Printed: 3

Total Work Orders Printed: 3

Format: Month/Day/Year
 Enter Start Date : 6/1/20

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

| DATE | WASTEWATER FLOWS (Million Gallons) | | | TEMP (DEGF) | | pH | | SETS (M/L) | | TSS (mg/L) | | D.O. (mg/L) | 5-DAY BOD (mg/L) | | | RETURN SLUDGE | | | | | AERATION BASIN | | | | | ACTIVE | | CHLORINATION | | | FINAL EFFLUENT | | |
|---------|---------------------------------------|------------------|--------|----------------|-------|-----|-------|---------------|-------|---------------|-------|----------------|---------------------|----------------|-------|---------------|------------|-------------|--------------|-------------|----------------|-----|-----|------------------------|-------------------------|----------------------------|---------------|-------------------------------|---------------|----------------|----------------|----|------|
| | Final Effluent | Sec. Effluent | Bypass | raw | final | raw | final | raw | final | raw | final | final | raw | prim. final | final | FLOW MG | TSS g/L | TVSS g/L | D.O. mg/L | MLSS g/L | MLVSS g/L | SET | SVI | Sludge Wasted MG | Primary Sludge MG | Chlorine Dosage KLBS | Resid mg/L | Fecal Coliform #/100 ml | NH3-N mg/L | Pump. Hours | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | MG | MG | KLBS |
| 6/1/20 | 65.32 | 65.32 | 0.00 | 65 | 65 | 7.2 | 6.5 | 9.5 | 0.1 | 400 | 88 | 4.0 | 419 | 226 | 61 | 24.2 | 13.7 | 12.1 | 5.7 | 4.2 | 3.7 | 520 | 125 | 0.51 | 0.41 | 2.20 | 0.016 | 39 | 7.1 | 24.0 | | | |
| 6/2/20 | 74.70 | 74.70 | 0.00 | 73 | 73 | 7.2 | 6.5 | 11.9 | 0.1 | 280 | 45 | 4.3 | 400 | 226 | 26 | 24.0 | 13.9 | 12.1 | 10.5 | 5.2 | 4.5 | 458 | 91 | 0.63 | 0.39 | 2.31 | 0.016 | 6 | 15.1 | 11.0 | | | |
| 6/3/20 | 61.70 | 61.70 | 0.00 | 74 | 74 | 7.1 | 6.6 | 8.9 | 0.3 | 427 | 98 | 5.8 | 494 | 279 | 50 | 24.3 | 13.0 | 11.5 | 9.0 | 3.7 | 3.3 | 446 | 120 | 0.56 | 0.49 | 2.31 | 0.016 | 4 | 17.2 | 0.0 | | | |
| 6/4/20 | 106.44 | 79.23 | 27.21 | 77 | 77 | 7.1 | 6.7 | 4.9 | 2.1 | 270 | 168 | 6.6 | 344 | 293 | 79 | 24.3 | 12.9 | 11.3 | 6.9 | 3.7 | 3.3 | 436 | 116 | 0.77 | 0.49 | 0.00 | 0.016 | 34 | 16.9 | 0.0 | | | |
| 6/5/20 | 131.60 | 107.52 | 24.08 | 73 | 73 | 7.4 | 6.4 | 6.5 | 0.2 | 247 | 107 | 4.7 | 217 | 140 | 49 | 24.6 | 13.8 | 11.8 | 13.5 | 2.9 | 2.5 | 253 | 90 | 0.16 | 0.31 | 1.76 | 0.016 | 107 | 6.2 | 0.0 | | | |
| 6/6/20 | 62.22 | 62.22 | 0.00 | 74 | 74 | 7.2 | 6.6 | 7.0 | 0.1 | 252 | 14 | 6.9 | 360 | 233 | 9 | 24.3 | 13.4 | 11.5 | 9.0 | 3.8 | 3.3 | 379 | 103 | 0.00 | 0.03 | 1.76 | 0.016 | 14 | 4.7 | 0.0 | | | |
| 6/7/20 | 56.25 | 56.25 | 0.00 | 74 | 74 | 7.1 | 6.5 | 7.6 | 0.1 | 264 | 46 | 6.0 | 388 | 261 | 29 | 24.5 | 13.2 | 11.5 | 5.3 | 4.1 | 3.6 | 457 | 109 | 0.11 | 0.00 | 1.73 | 0.016 | 20 | 4.0 | 0.0 | | | |
| 6/8/20 | 57.45 | 57.45 | 0.00 | 73 | 73 | 7.1 | 6.5 | 10.5 | 0.1 | 362 | 32 | 5.7 | 422 | 259 | 29 | 24.2 | 14.4 | 12.3 | 4.7 | 4.7 | 4.1 | 481 | 105 | 0.67 | 0.48 | 1.86 | 0.016 | 27 | 14.4 | 0.0 | | | |
| 6/9/20 | 74.08 | 71.46 | 2.62 | 74 | 74 | 7.0 | 6.5 | 5.4 | 0.3 | 380 | 142 | 5.0 | 388 | 293 | 98 | 24.4 | 14.4 | 12.3 | 3.7 | 4.8 | 4.1 | 520 | 110 | 0.45 | 0.45 | 2.70 | 0.016 | 45 | 17.1 | 0.0 | | | |
| 6/10/20 | 60.69 | 60.68 | 0.01 | 77 | 77 | 7.1 | 6.5 | 9.1 | 0.1 | 340 | 17 | 4.5 | 465 | 266 | 23 | 23.7 | 15.1 | 12.9 | 4.5 | 3.9 | 2.0 | 491 | 108 | 0.61 | 0.46 | 2.70 | 0.016 | 297 | 12.5 | 0.0 | | | |
| 6/11/20 | 54.50 | 54.50 | 0.00 | 74 | 74 | 6.9 | 6.5 | 2.1 | 0.1 | 355 | 58 | 4.9 | 504 | 414 | 38 | 23.3 | 14.6 | 12.5 | 1.9 | 4.8 | 4.1 | 518 | 110 | 0.53 | 0.24 | 2.19 | 0.016 | 194 | 16.2 | 0.0 | | | |
| 6/12/20 | 54.26 | 54.26 | 0.00 | 75 | 75 | 7.1 | 6.5 | 8.0 | 0.3 | 317 | 98 | 5.1 | 497 | 383 | 61 | 23.5 | 15.1 | 13.1 | 1.9 | 7.0 | 6.0 | 517 | 74 | 0.19 | 0.24 | 2.18 | 0.016 | 177 | 15.4 | 0.0 | | | |
| 6/13/20 | 50.75 | 50.75 | 0.00 | 75 | 75 | 7.0 | 6.5 | 8.0 | 0.2 | 327 | 30 | 4.9 | 526 | 476 | 32 | 23.3 | 16.0 | 13.9 | 1.6 | 8.0 | 6.9 | 500 | 63 | 0.00 | 0.21 | 2.18 | 0.016 | 164 | 9.3 | 0.0 | | | |
| 6/14/20 | 48.09 | 48.09 | 0.00 | 74 | 74 | 7.0 | 6.4 | 9.5 | 0.3 | 284 | 88 | 4.1 | 373 | 286 | 78 | 23.4 | 16.1 | 13.7 | 2.2 | 5.7 | 4.9 | 624 | 111 | 0.09 | 0.09 | 1.90 | 0.016 | 53 | 4.3 | 0.0 | | | |
| 6/15/20 | 51.27 | 51.27 | 0.00 | 69 | 69 | 7.0 | 6.4 | 9.1 | 1.5 | 347 | 260 | 5.0 | 462 | 281 | 130 | 23.3 | 16.6 | 14.3 | 5.4 | 5.0 | 4.3 | 632 | 127 | 0.47 | 0.34 | 1.90 | 0.016 | 187 | 15.6 | 0.0 | | | |
| 6/16/20 | 53.30 | 53.30 | 0.00 | 75 | 75 | 7.1 | 6.5 | 11.1 | 3.1 | 420 | 284 | 4.5 | 612 | 387 | 155 | 23.2 | 16.1 | 13.9 | 4.0 | 5.7 | 4.9 | 586 | 104 | 0.41 | 0.36 | 2.02 | 0.016 | 420 | 23.7 | 0.0 | | | |
| 6/17/20 | 52.53 | 52.53 | 0.00 | 74 | 74 | 7.0 | 6.5 | 11.1 | 0.3 | 397 | 165 | 4.3 | 612 | 406 | 94 | 23.0 | 16.2 | 13.9 | 1.9 | 5.2 | 4.6 | 636 | 122 | 0.47 | 0.41 | 2.53 | 0.016 | 6 | 22.5 | 0.0 | | | |
| 6/18/20 | 53.00 | 53.00 | 0.00 | 72 | 72 | 7.2 | 6.5 | 12.9 | 0.3 | 451 | 68 | 4.9 | 567 | 354 | 43 | 23.7 | 17.0 | 14.7 | 4.5 | 4.8 | 4.1 | 506 | 105 | 0.58 | 0.54 | 2.61 | 0.016 | 9 | 20.7 | 0.0 | | | |
| 6/19/20 | 49.47 | 49.47 | 0.00 | 77 | 77 | 7.1 | 6.5 | 12.0 | 0.2 | 376 | 137 | 4.1 | 648 | 596 | 79 | 24.3 | 17.1 | 14.8 | 0.8 | 5.7 | 4.9 | 596 | 106 | 0.31 | 0.47 | 2.61 | 0.016 | 70 | 22.0 | 0.0 | | | |
| 6/20/20 | 53.96 | 53.96 | 0.00 | 77 | 77 | 7.2 | 6.4 | 8.0 | 0.2 | 244 | 143 | 5.3 | 353 | 292 | 82 | 24.4 | 16.7 | 14.6 | 1.4 | 6.1 | 5.3 | 607 | 100 | 0.00 | 0.16 | 2.51 | 0.016 | 294 | 11.6 | 0.0 | | | |
| 6/21/20 | 110.47 | 84.09 | 26.38 | 76 | 76 | 7.1 | 6.2 | 11.1 | 14.1 | 360 | 405 | 6.5 | 191 | 174 | 292 | 24.4 | 18.1 | 15.7 | 7.8 | 6.0 | 5.2 | 618 | 103 | 0.02 | 0.11 | 4.17 | 0.016 | 97 | 8.6 | 0.0 | | | |
| 6/22/20 | 78.76 | 75.58 | 3.18 | 77 | 77 | 7.2 | 6.4 | 8.9 | 0.3 | 302 | 64 | 4.5 | 222 | 99 | 42 | 24.2 | 17.3 | 14.9 | 16.0 | 4.4 | 3.7 | 376 | 86 | 0.36 | 0.40 | 4.17 | 0.016 | 117 | 8.2 | 0.0 | | | |
| 6/23/20 | 181.64 | 128.93 | 52.71 | 75 | 75 | 7.2 | 6.5 | 3.5 | 1.1 | 202 | 162 | 5.7 | 102 | 116 | 97 | 21.0 | 16.1 | 13.6 | 16.4 | 3.9 | 3.4 | 294 | 75 | 0.35 | 0.33 | 6.04 | 0.016 | 104 | 8.2 | 0.0 | | | |
| 6/24/20 | 89.60 | 89.26 | 0.34 | 74 | 74 | 7.2 | 6.7 | 3.2 | 0.1 | 151 | 17 | 5.4 | 257 | 146 | 16 | 22.9 | 16.4 | 13.8 | 14.0 | 4.5 | 3.8 | 252 | 56 | 0.70 | 0.49 | 6.04 | 0.016 | 394 | 9.1 | 0.0 | | | |
| 6/25/20 | 67.62 | 67.62 | 0.00 | 74 | 74 | 7.3 | 6.6 | 5.5 | 0.3 | 212 | 8 | 5.5 | 368 | 213 | 8 | 24.3 | 15.4 | 13.0 | 11.0 | 4.3 | 3.7 | 396 | 91 | 0.39 | 0.41 | 2.03 | 0.016 | 17 | 10.3 | 0.0 | | | |
| 6/26/20 | 59.72 | 59.72 | 0.00 | 77 | 77 | 7.3 | 6.7 | 9.0 | 0.1 | 328 | 12 | 5.7 | 352 | 206 | 6 | 24.4 | 15.5 | 13.0 | 11.1 | 5.8 | 4.9 | 439 | 76 | 0.30 | 0.22 | 1.74 | 0.016 | 4 | 18.4 | 0.0 | | | |
| 6/27/20 | 75.55 | 75.55 | 0.00 | 75 | 75 | 7.4 | 6.6 | 9.5 | 0.1 | 373 | 26 | 5.3 | 243 | 157 | 18 | 24.2 | 14.7 | 12.5 | 13.3 | 6.2 | 5.2 | 508 | 83 | 0.00 | 0.09 | 2.07 | 0.016 | 7 | 16.3 | 0.0 | | | |
| 6/28/20 | 92.44 | 86.68 | 5.76 | 76 | 76 | 7.2 | 6.7 | 4.5 | 0.1 | 143 | 46 | 5.6 | 103 | 89 | 27 | 24.3 | 15.3 | 12.9 | 16.0 | 4.0 | 3.3 | 418 | 106 | 0.18 | 0.13 | 2.55 | 0.016 | 10 | 10.0 | 0.0 | | | |
| 6/29/20 | 156.50 | 115.46 | 41.04 | 76 | 76 | 7.4 | 6.6 | 6.4 | 0.3 | 218 | 75 | 4.3 | 120 | 135 | 56 | 24.2 | 15.3 | 12.7 | 17.5 | 4.1 | 3.4 | 276 | 68 | 0.67 | 0.33 | 4.61 | 0.016 | 150 | 11.8 | 0.0 | | | |
| 6/30/20 | 129.98 | 117.77 | 12.21 | 76 | 76 | 7.3 | 6.6 | 4.5 | 0.1 | 203 | 20 | 5.9 | 163 | 87 | 16 | 24.2 | 16.3 | 13.3 | 16.7 | 4.6 | 3.7 | 203 | 46 | 0.71 | 0.40 | 2.70 | 0.016 | 144 | 9.4 | 0.0 | | | |
| Sum | 2313.86 | 2118.32 | 195.54 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 35.0 |
| Average | 77.1 | 70.6 | 17.8 | 74 | 74 | 7.2 | 6.5 | 8.0 | 0.9 | 308 | 97 | 5.2 | 372 | 259 | 61 | 23.9 | 15.3 | 13.1 | 7.9 | 4.9 | 4.2 | 465 | 96 | 0.37 | 0.32 | 2.60 | 0.016 | 49 | 12.9 | | | | |

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