# DMR Copy of Record

*Permit*

| | | | | | |
|---|---|---|---|---|---|
| **Permit #:** | **MD0024333** | **Permittee:** | MARYLAND MOBILE ESTATES, LLC | **Facility:** | MARYLAND MANOR WWTP |
| **Major:** | No | **Permittee Address:** | 4922 FAIRMONT AVENUE, SUITE 280<br>BETHESDA (0811--AA), MD 20814 | **Facility Location:** | 4600 SANDS ROAD<br>HARWOOD, MD 20776 |
| **Permitted Feature:** | 001<br>External Outfall | **Discharge:** | **001-A**<br>12-DP-0811 | | |

*Report Dates & Status*

| | | | | | |
|---|---|---|---|---|---|
| **Monitoring Period:** | **From 02/01/20 to 02/29/20** | **DMR Due Date:** | **03/28/20** | **Status:** | **NetDMR Validated** |

*Considerations for Form Completion*

DISCHARGE SHALL BE LIMITED AT ALL TIMES. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM OTHER THAN TRACE AMOUNT. FLOW USED IN WASTE ALLOCATION CALCULATIONS, NOT TO BE CONSIDERED A LIMITATION.

*Principal Executive Officer*

| | | | | | |
|---|---|---|---|---|---|
| **First Name:** | Jack | **Title:** | Vice President, Operations | **Telephone:** | 443-903-4758 |
| **Last Name:** | Bradshaw | | | | |

*No Data Indicator (NODI)*

**Form NODI:** --

| Parameter | | Monitoring Location | Season # | Param. NODI | | Quantity or Loading | | | | | Quality or Concentration | | | | | | | # of Ex. | Frequency of Analysis | Sample Type |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Code | Name | | | | | Qualifier 1 | Value 1 | Qualifier 2 | Value 2 | Units | Qualifier 1 | Value 1 | Qualifier 2 | Value 2 | Qualifier 3 | Value 3 | Units | | | |
| 00300 | Oxygen, dissolved [DO] | 1 - Effluent Gross | 0 | -- | Sample | | | | | | = | 6.9 | = | 8.59 | | | 19 - mg/L | | 01/01 - Daily | GR - GRAB |
| | | | | | Permit Req. | | | | | | >= | 5.0 INST MIN | >= | 5.5 MO AV MN | | | 19 - mg/L | | 01/01 - Daily | GR - GRAB |
| | | | | | Value NODI | | | | | | | | | | | | | | | |
| 00300 | Oxygen, dissolved [DO] | 1 - Effluent Gross | 1 | -- | Sample | | | | | | = | 6.9 | | | | | 19 - mg/L | | 01/01 - Daily | GR - GRAB |
| | | | | | Permit Req. | | | | | | >= | 6.0 MN WK AV | | | | | 19 - mg/L | | 01/01 - Daily | GR - GRAB |
| | | | | | Value NODI | | | | | | | | | | | | | | | |
| 00310 | BOD, 5-day, 20 deg. C | 1 - Effluent Gross | 0 | -- | Sample | = | 11.64 | = | 16.83 | 26 - lb/d | | | = | 10.65 | = | 15.4 | 19 - mg/L | | 01/07 - Weekly | 08 - COMP-8 |
| | | | | | Permit Req. | <= | 23.0 MX MO AV | <= | 34.0 MX WK AV | 26 - lb/d | | | <= | 30.0 MX MO AV | <= | 45.0 MX WK AV | 19 - mg/L | | 01/07 - Weekly | 08 - COMP-8 |
| | | | | | Value NODI | | | | | | | | | | | | | | | |
| 00400 | pH | 1 - Effluent Gross | 0 | -- | Sample | | | | | | = | 6.7 | | | = | 7.3 | 12 - SU | | 01/01 - Daily | GR - GRAB |
| | | | | | Permit Req. | | | | | | >= | 6.5 MINIMUM | | | <= | 8.5 MAXIMUM | 12 - SU | | 01/01 - Daily | GR - GRAB |
| | | | | | Value NODI | | | | | | | | | | | | | | | |
| X 00530 | Solids, total suspended | 1 - Effluent Gross | 0 | -- | Sample | = | 39.89 | = | 45.9 | 26 - lb/d | | | = | 36.5 | = | 42.0 | 19 - mg/L | | 01/07 - Weekly | 08 - COMP-8 |
| | | | | | Permit Req. | <= | 23.0 MX MO AV | <= | 34.0 MX WK AV | 26 - lb/d | | | <= | 30.0 MX MO AV | <= | 45.0 MX WK AV | 19 - mg/L | 1 | 01/07 - Weekly | 08 - COMP-8 |
| | | | | | Value NODI | | | | | | | | | | | | | | | |
| 00600 | Nitrogen, total [as N] | 1 - Effluent Gross | 0 | -- | Sample | | | | | | | | = | 22.86 | | | 19 - mg/L | | 01/30 - Monthly | 08 - COMP-8 |
| | | | | | Permit Req. | | | | | | | | | Req Mon MO AVG | | | 19 - mg/L | | 01/30 - Monthly | 08 - COMP-8 |
| | | | | | Value NODI | | | | | | | | | | | | | | | |
| 00600 | Nitrogen, total [as N] | 1 - Effluent Gross | 1 | -- | Sample | | | = | 774.35 | 76 - lb/mo | | | | | | | | | 01/30 - Monthly | CA - CALCTD |
| | | | | | Permit Req. | | | | Req Mon MO TOTAL | 76 - lb/mo | | | | | | | | | 01/30 - Monthly | CA - CALCTD |
| | | | | | Value NODI | | | | | | | | | | | | | | | |
| 00600 | Nitrogen, total [as N] | 1 - Effluent Gross | 2 | -- | Sample | | | = | 1070.34 | 50 - lb/yr | | | | | | | | | 01/30 - Monthly | CA - CALCTD |
| | | | | | Permit Req. | | | | Req Mon CUM TOTL | 50 - lb/yr | | | | | | | | | 01/30 - Monthly | CA - CALCTD |
| | | | | | Value NODI | | | | | | | | | | | | | | | |
| 00605 | Nitrogen, organic total [as N] | 1 - Effluent Gross | 0 | -- | Sample | | | | | | | | = | 3.36 | | | 19 - mg/L | | 01/30 - Monthly | 08 - COMP-8 |
| | | | | | Permit Req. | | | | | | | | | Req Mon MO AVG | | | 19 - mg/L | | 01/30 - Monthly | 08 - COMP-8 |
| | | | | | Value NODI | | | | | | | | | | | | | | | |
| 00610 | Nitrogen, ammonia total [as N] | 1 - Effluent Gross | 0 | -- | Sample | | | | | | | | = | 0.2 | | | 19 - mg/L | | 01/30 - Monthly | 08 - COMP-8 |
| | | | | | Permit Req. | | | | | | | | | Req Mon MO AVG | | | 19 - mg/L | | 01/30 - Monthly | 08 - COMP-8 |
| | | | | | Value NODI | | | | | | | | | | | | | | | |
| 00630 | Nitrite + Nitrate total [as N] | 1 - Effluent Gross | 0 | -- | Sample | | | | | | | | = | 19.3 | | | 19 - mg/L | | 01/30 - Monthly | 08 - COMP-8 |
| | | | | | Permit Req. | | | | | | | | | Req Mon MO AVG | | | 19 - mg/L | | 01/30 - Monthly | 08 - COMP-8 |
| | | | | | Value NODI | | | | | | | | | | | | | | | |
| 00665 | Phosphorus, total [as P] | 1 - Effluent Gross | 0 | -- | Sample | | | | | | | | = | 1.07 | | | 19 - mg/L | | 01/30 - Monthly | 08 - COMP-8 |
| | | | | | Permit Req. | | | | | | | | | Req Mon MO AVG | | | 19 - mg/L | | 01/30 - Monthly | 08 - COMP-8 |
| | | | | | Value NODI | | | | | | | | | | | | | | | |
| 00665 | Phosphorus, total [as P] | 1 - Effluent Gross | 1 | -- | Sample | | | = | 36.25 | 76 - lb/mo | | | | | | | | | 01/30 - Monthly | CA - CALCTD |
| | | | | | Permit Req. | | | | Req Mon MO TOTAL | 76 - lb/mo | | | | | | | | | 01/30 - Monthly | CA - CALCTD |
| | | | | | Value NODI | | | | | | | | | | | | | | | |
| 00665 | Phosphorus, total [as P] | 1 - Effluent Gross | 2 | -- | Sample | | | = | 72.14 | 50 - lb/yr | | | | | | | | | 01/30 - Monthly | CA - CALCTD |
| | | | | | Permit Req. | | | | Req Mon CUM TOTL | 50 - lb/yr | | | | | | | | | 01/30 - Monthly | CA - CALCTD |
| | | | | | Value NODI | | | | | | | | | | | | | | | |
| 04175 | Phosphate, ortho [as P] | 1 - Effluent Gross | 0 | -- | Sample | | | | | | | | = | 2.65 | | | 19 - mg/L | | 01/30 - Monthly | 08 - COMP-8 |
| | | | | | Permit Req. | | | | | | | | | Req Mon MO AVG | | | 19 - mg/L | | 01/30 - Monthly | 08 - COMP-8 |
| | | | | | Value NODI | | | | | | | | | | | | | | | |
| 50050 | Flow, in conduit or thru treatment plant | 1 - Effluent Gross | 0 | -- | Sample | = | 0.131 | = | 0.178 | 03 - MGD | | | | | | | | | 99/99 - Continuous | RC - Recorder (auto) |
| | | | | | Permit Req. | | Req Mon MO AVG | | Req Mon DAILY MX | 03 - MGD | | | | | | | | | 99/99 - Continuous | RC - Recorder (auto) |
| | | | | | Value NODI | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 50060 | Chlorine, total residual | 1 - Effluent Gross | 0 | -- | Sample | | | | | | | | | | = | 0.0 | 19 - mg/L | | 01/01 - Daily | GR - GRAB |
| | | | | | Permit Req. | | | | | | | | | | <= | 0.1 DAILY MX | 19 - mg/L | | 01/01 - Daily | GR - GRAB |
| | | | | | Value NODI | | | | | | | | | | | | | | | |
| 51040 | E. coli | 1 - Effluent Gross | 0 | -- | Sample | | | | | | | | | | = | 43.98 | 30 - MPN/100mL | | 01/07 - Weekly | GR - GRAB |
| | | | | | Permit Req. | | | | | | | | | | <= | 126 0 MX MO GMN | 30 - MPN/100mL | | 01/07 - Weekly | GR - GRAB |
| | | | | | Value NODI | | | | | | | | | | | | | | | |
| 82220 | Flow, total | 1 - Effluent Gross | 0 | -- | Sample | | | = | 4.062 | 80 - Mgal/mo | | | | | | | | | 01/30 - Monthly | CA - CALCTD |
| | | | | | Permit Req. | | | | Req Mon TOTAL | 80 - Mgal/mo | | | | | | | | | 01/30 - Monthly | CA - CALCTD |
| | | | | | 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***

| Parameter | | Monitoring Location | Field | Type | Description | Acknowledge |
|---|---|---|---|---|---|---|
| Code | Name | | | | | |
| 00530 | Solids, total suspended | 1 - Effluent Gross | Quantity or Loading Sample Value 1 | Soft | The provided sample value is outside the permit limit. (Error Code: 1) | Yes |
| 00530 | Solids, total suspended | 1 - Effluent Gross | Quantity or Loading Sample Value 2 | Soft | The provided sample value is outside the permit limit. (Error Code: 1) | Yes |
| 00530 | Solids, total suspended | 1 - Effluent Gross | Quality or Concentration Sample Value 2 | Soft | The provided sample value is outside the permit limit. (Error Code: 1) | Yes |

***Comments***

Please See NCR for TSS Exceedance Reasoning

***Attachments***

| Name | Type | Size |
|---|---|---|
| 2-4-20.pdf | pdf | 617719.0 |
| 2-11-20.pdf | pdf | 604240.0 |
| 2-25-20.pdf | pdf | 1217284.0 |
| MDM-MHC-NC-FEBRUARY-2020.docx | docx | 209574.0 |
| 2-18-20.pdf | pdf | 657139.0 |
| MDM-MOR-DMR-FEBRUARY-2020.xlsx | xlsx | 155746.0 |

***Report Last Saved By***

***MARYLAND MOBILE ESTATES, LLC***

User: [redacted] (b) (6)

Name: jack bradshaw

E-Mail: [redacted] (b) (6)

Date/Time: 2020-03-30 16:16 (Time Zone: -04:00)

***Report Last Signed By***

User: [redacted] (b) (6)

Name: jack bradshaw

E-Mail: [redacted] (b) (6)

Date/Time: 2020-03-30 16:16 (Time Zone: -04:00)

# Chesapeake Environmental Lab Inc.

*A Water Quality Laboratory*

*Water Analysis* . *Well & Septic Inspection*
P.O. Box 946 . Stevensville, MD 21666
www.ChesapeakeEnvironmentalLab.com
1-800-300-TEST . 410-643-0800
Fax 410-643-0801
St. #181


## WASTE WATER ANALYSIS REPORT

CASE #: 121941
REQUESTED BY: Horizon Land Co. LLC
1091 Mt. Zion – Marlboro Rd
Lothian, Md 20711

SAMPLE SITE: Maryland Manor WWTP

MATRIX: Waste Water
SOURCE: Final Eff / Aeration Reactor / Grab
DATE/TIME COLLECTED: 02-04-2020 / 10:05am
COLLECTED BY: [redacted] (b) (4)
DATE RECEIVED BY LAB: 02-04-2020
REPORT DATE: 02-12-2020

| Parameter | Results | Units | Detection Limit | Date/Time Analyzed | Method | Analyst |
|---|---|---|---|---|---|---|
| Ammonia | 0.119 | mg/L | 0.1 | 02-10-2020 / 1:30pm | SM4500NH3-D | CD |
| BOD | 7.24 | mg/L | 1.0 | 02-05-2020 / 8:55am | SM5210B | CD |
| Escherichia Coli | >200.5 | MPN | 1.0 | 02-04-2020 / 3:17pm | SM 9223B | TD |
| TSS | 25.0 | mg/L | 0.5 | 02-05-2020 / 12:30pm | SM2540D | CD |
| MLSS | 4,870 | mg/L | 0.5 | 02-05-2020 / 12:20pm | SM2540D | CD |

Comments:

- SM - Standard Methods 22nd ed.
- This report relates only to the samples as received by the laboratory and may only be reproduced in full.
- BOD – pH adjusted with Sulfuric Acid (H2SO4)
- *MD 275

Dominic DiGiovine

Dominic DiGiovine
Laboratory Director

Weekly

12194

# CHAIN OF CUSTODY RECORD

PROJECT NAME Maryland Manor
COMPANY ProStart / Horizon Properties
ADDRESS 1091 Mt. Zion Marlboro Rd Lothian Md
PHONE ( )

(b) (4)


Chesapeake Environmental Lab Inc.
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info@celinc.net
www.ChesapeakeEnvironmentalLab.com


| SAMPLE NO. | DATE | TIME | SAMPLE LOCATION | CONTAINER SIZE | CONTAINER G/P | NO. OF CONTAINERS | SAMPLE MATRIX | PRESERVATIVE | BOD, TSS | E-Coli | NH3 | MLSS | | | | | | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2/4/20 | 1005 | Final Eff | 1L | P | 1 | WW | None | 1 | | | | | | | | | ~~Composite~~ GRAB |
| 2 | 2/4/20 | 1005 | Final Eff | 100ml | P | 1 | WW | None | | 1 | | | | | | | | Grab |
| 3 | 2/4/20 | 1005 | Final Eff | 250ml | P | 1 | WW | $H_2SO_4$ | | | 1 | | | | | | | ~~Composite~~ GRAB |
| 4 | 2/4/20 | 1005 | Aeration Reactor | 250ml | P | 1 | WW | None | | | | 1 | | | | | | ~~Composite~~ GRAB |

(b) (4)

| Date / Time | Received by: | Relinquished by: | Date / Time |
|---|---|---|---|
| 2/4/20 11:15 AM | BOONES FRIDGE | | |
| 2-4-2020 1:30p | | | 2-4-2020 2:20p |

(b) (4) 2-4-2020 / 1130A

Received for Laboratory by: (b) (4)

Method of Shipment: CEL TECH

Remarks:

| | YES | NO |
|---|---|---|
| Samples Iced | ✓ | |
| Samples Preserved | | |

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Fax 410-643-0801
St. #181


## WASTE WATER ANALYSIS REPORT

CASE #: 122063
REQUESTED BY: Horizon Land Co. LLC
1091 Mt. Zion – Marlboro Rd
Lothian, Md 20711

SAMPLE SITE: Maryland Manor WWTP

MATRIX: Waste Water
SOURCE: Final Eff / Grab / Aeration Reactor
DATE/TIME COLLECTED: 02-11-2020 / 10:55am
COLLECTED BY: [redacted] (b) (4)
DATE RECEIVED BY LAB: 02-11-2020
REPORT DATE: 02-19-2020

| Parameter | Results | Units | Detection Limit | Date/Time Analyzed | Method | Analyst |
|---|---|---|---|---|---|---|
| Ammonia | 0.429 | mg/L | 0.1 | 02-18-2020 / 12:30pm | SM4500NH3-D | CD |
| BOD | 8.16 | mg/L | 1.0 | 02-12-2020 / 8:30am | SM5210B | CD |
| Escherichia Coli | 15.0 | MPN | 1.0 | 02-11-2020 / 2:38pm | SM 9223B | DD |
| TSS | 41.0 | mg/L | 0.5 | 02-12-2020 / 10:45am | SM2540D | CD |
| MLSS | 5,940 | mg/L | 0.5 | 02-12-2020 / 1:15pm | SM2540D | CD |

Comments:

- SM - Standard Methods 22nd ed.
- This report relates only to the samples as received by the laboratory and may only be reproduced in full.
- *MD 275

Dominic DiGiovine

Dominic DiGiovine
Laboratory Director

~~Monthly~~ Weekly

122003

# CHAIN OF CUSTODY RECORD

PROJECT NAME Maryland Manor
COMPANY Prostart/Horizon Properties
ADDRESS 1091 Mt Zion Marlboro Rd Lothian Md
PHONE ( )
[redacted]
PRINT NAME

Chesapeake Environmental Lab Inc.
*Water Analysis • Well and Septic Inspection*

St. #181
P.O. Box 946, Stevensville, MD 21666
1-800-300-TEST 410-643-0800 Fax 410-643-0801
info@celinc.net
www.ChesapeakeEnvironmentalLab.com

| SAMPLE NO. | DATE | TIME | SAMPLE LOCATION | CONTAINER SIZE | CONTAINER G/P | NO. OF CONTAINERS | SAMPLE MATRIX | PRESERVATIVE | BOD | T.S.S. | E-Coli | NH3 | NO3 | TKN | [redacted] | | | | | | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2/11/20 | 1055 | Final Eff | 1L | P | 1 | WW | None | 1 | | | | | | | | | | | | ~~Composite~~ GRAB |
| X2 | 2/11/20 | 1055 | Final Eff | 100ml | P | 1 | WW | None | | 1 | | | | | | | | | | | Grab |
| X3 | 2/11/20 | 1055 | Aeration Reactor | 250ml | P | 1 | WW | None | | | 1 | | | | | | | | | | Grab |
| X4 | 2/11/20 | 1055 | Final Eff | 250 | P | 1 | WW | $H_2SO_4$ | | | | | 1 | | | | | | | | ~~Composite~~ GRAB |
| [redacted] | | | | | | | | | | | | | | | [redacted] | | | | | | [redacted] |

[redacted]

| Date / Time | Received by: | Relinquished by: | Date / Time | Received by: |
|---|---|---|---|---|
| 2-11-20 | BOODES FRIDLE | | | [redacted] 2-11-2020 |
| Date / Time | Received by: | Relinquished by: | Date / Time | Received for Laboratory by: |
| 2-11-2020 1308 | | | 2-11-2020 2:45p | [redacted] |

Method of Shipment: CEL TECH

Remarks:

| | YES | NO |
|---|---|---|
| Samples Iced | ☐ | ☐ |
| Samples Preserved | ☐ | ☐ |

122063

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St. #181


## WASTE WATER ANALYSIS REPORT

CASE #: 122167
REQUESTED BY: Horizon Land Co. LLC
1091 Mt. Zion – Marlboro Rd
Lothian, Md 20711

SAMPLE SITE: Maryland Manor WWTP

MATRIX: Waste Water
SOURCE: Final Eff Grab / Aeration Reactor
DATE/TIME COLLECTED: 02-18-2020 / 9:50am
COLLECTED BY: (b) (4)
DATE RECEIVED BY LAB: 02-18-2020
REPORT DATE: 03-04-2020

| Parameter | Results | Units | Detection Limit | Date/Time Analyzed | Method | Analyst |
|---|---|---|---|---|---|---|
| Ammonia | 0.142 | mg/L | 0.1 | 02-24-2020 / 12:30pm | SM4500NH3-D | CD |
| BOD | 11.8 | mg/L | 1.0 | 02-19-2020 / 9:00am | SM5210B | CD |
| Escherichia Coli | 38.4 | MPN | 1.0 | 02-18-2020 / 3:22pm | SM 9223B | MW |
| Nitrate/Nitrite | 19.30 | mg/L | 0.0998 | 02-20-2020 / 5:36pm | EPA300.0 | BDW* |
| Ortho Phosphorous | 2.65 | mg/L | 0.1 | 02-18-2020 / 4:00pm | SM4500-P-E | CD |
| Total Phosphorous | 1.07 | mg/L | 0.1 | 03-03-2020 / 2:30pm | SM4500-P B+E | CD |
| TKN | 3.555 | mg/L | 0.5 | 02-24-2020 / 11:02am | SM4500NorgC | PRA* |
| TSS | 42.0 | mg/L | 0.5 | 02-19-2020 / 2:00pm | SM2540D | CD |
| MLSS | 5,770 | mg/L | 0.5 | 02-19-2020 / 1:30pm | SM2540D | CD |

Comments:

- SM - Standard Methods 22nd ed.
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- *MD 275

Dominic DiGiovine

Dominic DiGiovine
Laboratory Director

monthly
monthly

122607

# CHAIN OF CUSTODY RECORD

PROJECT NAME: Maryland Manor
COMPANY: Prostart / Horizon Properties
ADDRESS: 1091 Mt Zion Marlboro Rd Lothian Md
PHONE: ( )

(b) (4)

PRINT NAME


Chesapeake Environmental Lab Inc.
Water Analysis • Well and Septic Inspection

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P.O. Box 946, Stevensville, MD 21666
1-800-300-TEST 410-643-0800 Fax 410-643-0801
info@celinc.net
www.ChesapeakeEnvironmentalLab.com


| SAMPLE NO. | DATE | TIME | SAMPLE LOCATION | CONTAINER SIZE | CONTAINER G/P | NO. OF CONTAINERS | SAMPLE MATRIX | PRESERVATIVE | BOD | TSS | E-Coli | NH3 | NO3 | TKN | NO2 | Ortho. P | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2-18 | 9:50 | Final Eff | 1L | P | 1 | WW | None | 1 | | | | | | | | ~~Composite~~ Grab |
| X2 | 2-18 | 9:50 | Final Eff | 100mL | P | 1 | WW | None | | 1 | | | | | | | Grab |
| X3 | 2-18-20 | 9:50 | Aeration Reactor | 250mL | P | 1 | WW | None | | | 1 | | | | | | Grab |
| X4 | 2-18-20 | 9:50 | Final Eff | 250 | P | 1 | WW | $H_2SO_4$ | | | | 1 | | | | | ~~Composite~~ Grab |
| X5 | 2-18-20 | 9:50 | Final Eff | 250 | P | 1 | WW | None | | | | | 1 | | | | ~~Composite~~ Grab |

| Relinquished by: | Date / Time | Received by: | Relinquished by: | Date / Time | Received by: |
|---|---|---|---|---|---|
| (b) (4) | 2-18-20 11:15am | Boones Ferry | | | (b) (4) 2-18-2020 12:25p |
| | 2-18-20 | (b) (4) | | | CEL |

Method of Shipment: CEL TECH

Remarks:

| | YES | NO |
|---|---|---|
| Samples Iced | ✓ | |
| Samples Preserved | ✓ | |

**Chesapeake Environmental Lab, Inc.**

P. O. Box 946
Stevensville, MD 21666

Chesapeake Environmental Lab Inc.
*Water Analysis • Well & Septic Inspections*

**Bill To**

Horizon Land Company
2138 Espey Court
Crofton, MD 21114

# Invoice

| Invoice Date | Invoice # | P.O. No. | Vender ID #: | Project |
|---|---|---|---|---|
| 3/9/2020 | 122311 | | | Maryland Manor WWTP |

| Quantity | Date | Description | Rate | Amount |
|---|---|---|---|---|
| 1 | 02-25-2020 | Ammonia Analysis<br>BOD Analysis<br>Bacteria - Ecoli Analysis<br>Total Suspended Solids Analysis<br>MLSS Water Analysis | (b) (4) [redacted] | (b) (4) [redacted] |

| | |
|---|---|
| **Total** | (b) (4) [redacted] |
| **Payments/Credits** | [redacted] |
| **Balance Due** | [redacted] |

Any account having an outstanding balance for more than 30 days will be charged a rebilling fee on that outstanding balance of $5.00 per month.

**Terms - On Receipt**

Phone: 410-643-0800 Fax: 410-643-0801 info@celinc.net www.chesapeakeenvironmentallab.net

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St. #181


## WASTE WATER ANALYSIS REPORT

CASE #: 122311
REQUESTED BY: Horizon Land Co. LLC
1091 Mt. Zion – Marlboro Rd
Lothian, Md 20711

SAMPLE SITE: Maryland Manor WWTP

MATRIX: Waste Water
SOURCE: Final Eff Grab / Aeration Reactor
DATE/TIME COLLECTED: 02-25-2020 / 9:50am
COLLECTED BY: (b) (4)
DATE RECEIVED BY LAB: 02-25-2020
REPORT DATE: 03-09-2020

| Parameter | Results | Units | Detection Limit | Date/Time Analyzed | Method | Analyst |
|---|---|---|---|---|---|---|
| Ammonia | <0.1 | mg/L | 0.1 | 03-05-2020 / 1:00pm | SM4500NH3-D | CD |
| BOD | 15.4 | mg/L | 1.0 | 02-26-2020 / 9:00am | SM5210B | CD |
| Escherichia Coli | 32.4 | MPN | 1.0 | 02-25-2020 / 3:09pm | SM 9223B | DD |
| TSS | 38.0 | mg/L | 0.5 | 02-26-2020 / 12:00pm | SM2540D | CD |
| MLSS | 5,710 | mg/L | 0.5 | 02-28-2020 / 8:30am | SM2540D | CD |

Comments:

- SM - Standard Methods 22nd ed.
- This report relates only to the samples as received by the laboratory and may only be reproduced in full.
- *MD 275

Dominic DiGiovine

Dominic DiGiovine
Laboratory Director

Weekly

# CHAIN OF CUSTODY RECORD

PROJECT NAME Maryland Manor WWTP
COMPANY ProStart/Horizon/Properties
ADDRESS 1091 Mt. Zion Marlboro Rd Lothian Md
PHONE (443) 336-2146

[redacted]

122311

Chesapeake Environmental Lab Inc.
*Water Analysis • Well and Septic Inspection*

St. #181
P.O. Box 946, Stevensville, MD 21666
1-800-300-TEST 410-643-0800 Fax 410-643-0801
info@celinc.net
www.ChesapeakeEnvironmentalLab.com

| SAMPLE NO. | DATE | TIME | SAMPLE LOCATION | CONTAINER SIZE | CONTAINER G/P | NO. OF CONTAINERS | SAMPLE MATRIX | PRESERVATIVE | BOD-TSS | E-Coli | $NH_3$ | MLSS | | | | | | | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2-25-20 | 9:50 | Final Eff | 1L | P | 1 | WW | None | 1 | | | | | | | | | | ~~Composite~~ Grab |
| 2 | 2-25-20 | 9:50 | Final Eff | 100ml | P | 1 | WW | None | | 1 | | | | | | | | | Grab |
| 3 | 2-25-20 | 9:50 | Final Eff | 250 | P | 1 | WW | $H_2SO_4$ | | | 1 | | | | | | | | ~~Composite~~ Grab |
| 4 | 2-25-20 | 9:50 | Aeration Reactor | 250 | P | 1 | WW | None | | | | 1 | | | | | | | Grab |

| | Date / Time | Received by: | Relinquished by: | Date / Time | |
|---|---|---|---|---|---|
| [redacted] | 2-25-20 11:00am | Boons fridge | | | [redacted] 2-25-2020 12p |
| | 2-25-2020 1:57p | [redacted] | Relinquished by: | Date / Time | Received for Laboratory by: [redacted] 2-25-2020 1:52 |

| | YES | NO |
|---|---|---|
| Samples Iced | ✓ | |
| Samples Preserved | ✓ | |

PERMITTEE NAME/ADDRESS(*Include Facility Name & Location if Different*)

NAME Maryland Estates MHC, LLC

ADDRESS 2138 Espey Court Suite 1
Crofton, Maryland (AA Co.) 21114

FACILITY Maryland Manor MHC-WWTP

LOCATION Sands Road
Harwood, Maryland (AA Co.) 20776

ATTN. KATE COSTELLO

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (*NPDES*)**

**DISCHARGE MONITORING REPORT (*DMR*)**

| 12-DP-0811 | MD0024333 | Outfall 001 |
|---|---|---|
| DISCHARGE NUMBER | DISCHARGE NUMBER | |

Form Approved
OMB No. 2040-0004

**3/1/2014 to 2/28/2019**

| MONITORING PERIOD | YEAR | MO | DAY | | YEAR | MO | DAY |
|---|---|---|---|---|---|---|---|
| FROM | 2020 | 2 | 1 | TO | 2020 | 2 | 29 |

**NOTE: Read Instructions before completing this form.**

| PARAMETER | | QUANTITY OR LOADING AVERAGE | QUANTITY OR LOADING MAXIMUM | UNITS | QUALITY OR CONCENTRATION MINIMUM | QUALITY OR CONCENTRATION AVERAGE | QUALITY OR CONCENTRATION MAXIMUM | UNITS | NO. EX | Freq. Of Analysis | SAMPLE TYPE |
|---|---|---|---|---|---|---|---|---|---|---|---|
| FLOW, in conduit or thru treatment plant | SAMPLE MEASUREMENT | 0.131 | 0.178 | MGD | ****** | ****** | ****** | | 0 | CONT. | REC. |
| 50050 1 0 Effluent Gross | PERMIT REQUIREMENT | REPORT MONTHLY AVG. | DAILY MAX | | ****** | ****** | ****** | | | CONT. | REC. |
| BOD, 5 day 20 deg. C | SAMPLE MEASUREMENT | 11.64 | 16.83 | Lbs./day | ****** | 10.65 | 15.40 | MG/L | 0 | 4/31 | 24HR.C |
| 00310 1 0 Effluent Gross | PERMIT REQUIREMENT | 23.0 MAX MO AVG. | 34.0 MAX WKLY AVG. | | ****** | 30 MO AVG. | 45 MAX WKLY AVG | | | ONCE per week | 24 HR. COMP. |
| pH | SAMPLE MEASUREMENT | ****** | ****** | **** | 6.7 | ****** | 7.3 | SU | 0 | 31/31 | GRAB |
| 00400 1 0 Effluent Gross | PERMIT REQUIREMENT | ****** | ****** | | 6.5 MINIMUM | ****** | 8.5 MAXIMUM | | | DAILY | GRAB |
| Oxygen, dissolved | SAMPLE MEASUREMENT | ****** | ****** | **** | 6.9 | 8.59 | ****** | MG/L | 0 | 31/31 | GRAB |
| 00300 1 0 Effluent Gross | PERMIT REQUIREMENT | ****** | ****** | | 5.0 INST. MIN. | 5.5 MO AVG. | NA 2/1-5/31: Minimum | | | DAILY | GRAB |
| Solids, total suspended | SAMPLE MEASUREMENT | **39.89** | **45.90** | | ****** | **36.50** | 42.0 | MG/L | **1** | 4/31 | 24HR.C |
| 00530 1 0 Effluent Gross | PERMIT REQUIREMENT | 23.0 MAX MO AVG. | 34.0 MAX WKLY AVG. | Lbs./day | ****** | 30 MO AVG. | 45 MAX WKLY AVG | | | ONCE per week | 24 HR. COMP. |
| E-Coli | SAMPLE MEASUREMENT | ****** | ****** | **** | ****** | ****** | 43.98 | MPN/ 100ML | 0 | 4/31 | GRAB |
| 51040 1 0 Effluent Gross | PERMIT REQUIREMENT | ****** | ****** | | ****** | ****** | 126 GEO MEAN | | | ONCE per week | GRAB |
| Chlorine, total residual | SAMPLE MEASUREMENT | ****** | ****** | **** | ****** | ****** | 0.00 | NA | 0 | NA | UV |
| 50060 1 0 Effluent Gross | PERMIT REQUIREMENT | ****** | ****** | | ****** | ****** | 0.10 DAILY MAX | | | DAILY | GRAB |
| Total Nitrogen (as N) | SAMPLE MEASUREMENT | ****** | 24.98 | Lbs./day | ****** | 22.86 | ****** | NA | 0 | Calc. | ****** |
| 00600 1 0 Daily/Monthly Total Lbs. | PERMIT REQUIREMENT | 774.35 | ****** | Lbs./Month | ****** | MO AVG. | | | | ONCE per month | Calculated |

| NAME/TITLE PRINCIPAL EXECUTIVE OFFICER | | | TELEPHONE | | DATE | | |
|---|---|---|---|---|---|---|---|
| Jack E Bradshaw Jr.<br>Prostart: VP Operations | I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on | SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT | 443 | 903-4758 | 2020 | 3 | 28 |
| TYPED OR PRINTED | | | CODE | NUMBER | YEAR | MO | DAY |

**COMMENTS AND EXPLANATION OF ANY VIOLATIONS** (*Reference all attachments here*)

| | e-coli MPN/100ml | e-coli logarithm of |
|---|---|---|
| week 1 | 200.5 | 2.30 |
| week 2 | 15.5 | 1.19 |
| week 3 | 38.4 | 1.58 |
| week 4 | 32.4 | 1.51 |
| total | | 6.587322 |
| count | 4 | 4 |
| avg | 49.23332 | 1.646831 |

PERMITTEE NAME/ADDRESS(*Include Facility Name & Location if Different*)

NAME Maryland Estates MHC, LLC

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (*NPDES*)**

**DISCHARGE MONITORING REPORT (*DMR*)**

Form Approved
OMB No. 2040-0004

ADDRESS 2138 Espey Court Suite 1
Crofton, Maryland (AA Co.) 21114

| 12-DP-0811 | MD0024333 | Outfall 001 |
|---|---|---|
| DISCHARGE NUMBER | DISCHARGE NUMBER | |

3/1/2014 to 2/28/2019

FACILITY Maryland Manor MHC-WWTP
LOCATION Sands Road
Harwood, Maryland (AA Co.) 20776
ATTN. KATE COSTELLO

| MONITORING PERIOD | YEAR | MO | DAY | | YEAR | MO | DAY |
|---|---|---|---|---|---|---|---|
| FROM | 2020 | 2 | 1 | TO | 2020 | 2 | 29 |

NOTE: Read Instructions before completing this form.

| PARAMETER | | QUANTITY OR LOADING AVERAGE | QUANTITY OR LOADING MAXIMUM | QUANTITY OR LOADING UNITS | QUALITY OR CONCENTRATION MINIMUM | QUALITY OR CONCENTRATION AVERAGE | QUALITY OR CONCENTRATION MAXIMUM | QUALITY OR CONCENTRATION UNITS | NO. EX | Freq. Of Analysis | SAMPLE TYPE |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrogen, Total (as N) Total Lbs./Year | SAMPLE MEASUREMENT | ****** | 1070.34 | | ****** | ****** | ****** | | 0 | Calc. | ****** |
| 00600 1 2 Cumulative/Year January to December | PERMIT REQUIREMENT | ****** | | LBS/YEAR | ****** | MAX MO AVG. | ****** | MG/L | | ONCE per month | Calculated |
| Organic Nitrogen | SAMPLE MEASUREMENT | 3.67 | ****** | | ****** | 3.36 | ****** | | 0 | 1/31 | 24HR.C |
| 00605 1 0 Effluent Gross | PERMIT REQUIREMENT | ****** | | Lbs./day | ****** | REG MO AVG. | ****** | MG/L | | Yearly | Cumulative |
| Nitrate-Nitrite Nitrogen Total (as N) | SAMPLE MEASUREMENT | ****** | ****** | | ****** | 19.30 | ****** | | 0 | 1/31 | 24HR.C |
| 00630 1 0 Effluent Gross | PERMIT REQUIREMENT | ****** | ****** | Lbs./day | ****** | REG MO AVG. | ****** | MG/L | | ONCE per week | 24 HR. COMP. |
| Ammonia Nitrogen Total (as N) | SAMPLE MEASUREMENT | 0.216 | 0.469 | | ****** | 0.20 | 0.43 | | 0 | 4/31 | 24HR.C |
| 00610 1 0 Total (as N) | PERMIT REQUIREMENT | 1.9 MAX MO AVG. | 10 MAX WKLY AVG. | Lbs./day | ****** | 2.9 MAX MO AVG. | 15 MAX DAILY AVG. | NA | | ONCE per week | 24 HR. COMP. |
| Phosphorous, Total (as P) | SAMPLE MEASUREMENT | ****** | 1.17 | Lbs./day | ****** | 1.07 | ****** | | 0 | 1/31 | 24HR.C |
| 00665 1 0 0 Effluent Gross Value | PERMIT REQUIREMENT | 36.25 | ****** | Lbs./Month | ****** | MONTHLY AVG. | ****** | MG/L | | ONCE per week | 24 HR. COMP. |
| Phosphorous, Total (as P) Total Lbs./Year | SAMPLE MEASUREMENT | ****** | 72.14 | | ****** | ****** | ****** | | 0 | Calc. | 24HR.C |
| 00665 1 2 Cumulative/Year January to December | PERMIT REQUIREMENT | ****** | | Lbs./Year | ****** | ****** | ****** | NA | | Yearly | Cumulative |
| FLOW, in conduit or thru treatment plant:Total/Month | SAMPLE MEASUREMENT | ****** | 4.062 | Monthly (MG) | ****** | ****** | ****** | | | ONCE per month | Calculated |
| 50050 1 0 Cumulative/Year January to December | PERMIT REQUIREMENT | ****** | | Yearly (MG) | ****** | ****** | ****** | NA | | Yearly | Cumulative |

| NAME/TITLE PRINCIPAL EXECUTIVE OFFICER | | | TELEPHONE | | DATE | | |
|---|---|---|---|---|---|---|---|
| Jack E Bradshaw Jr.<br>Prostart: VP Operations | I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on | SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT | 443 | 903-4758 | 2020 | 3 | 28 |
| TYPED OR PRINTED | | | CODE | NUMBER | YEAR | MO | DAY |

COMMENTS AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*
Please see NCR for TSS Exceedance Reasoning

PERMITTEE NAME/ADDRESS*(Include Facility Name & Location if Different)*
NAME Maryland Estates MHC, LLC
ADDRESS 2138 Espey Court Suite 1
Crofton, Maryland (AA Co.) 21114

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*
DISCHARGE MONITORING REPORT *(DMR)*

Form Approved
OMB No. 2040-0004

| 12-DP-0811 | MD0024333 | Outfall 001 |
|---|---|---|
| DISCHARGE NUMBER | DISCHARGE NUMBER | |

3/1/2014 to 2/28/2019

FACILITY Maryland Manor MHC-WWTP
LOCATION Sands Road
Harwood, Maryland (AA Co.) 20776
ATTN. KATE COSTELLO

| | MONITORING PERIOD | | | | | | |
|---|---|---|---|---|---|---|---|
| | YEAR | MO | DAY | | YEAR | MO | DAY |
| FROM | 2020 | 2 | 1 | TO | 2020 | 2 | 29 |

NOTE: Read Instructions before completing this form.

| PARAMETER | | QUANTITY OR LOADING | | | QUALITY OR CONCENTRATION | | | | NO. | Freq. Of | SAMPLE |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | AVERAGE | MAXIMUM | UNITS | MINIMUM | AVERAGE | MAXIMUM | UNITS | EX | Analysis | TYPE |
| Ortho-Phosphorous, Total (as P) | SAMPLE MEASUREMENT | ****** | ****** | **** | ****** | 2.65 | ****** | MG/L | 0 | 1/31 | 24HR.C |
| 04175 1 0 0 Effluent Gross Value | PERMIT REQUIREMENT | ****** | ****** | | ****** | MONTHLY AVG. | ****** | | | ONCE per week | 24 HR. COMP. |

| NAME/TITLE PRINCIPAL EXECUTIVE OFFICER | | | TELEPHONE | | DATE | | |
|---|---|---|---|---|---|---|---|
| Jack E Bradshaw Jr. | I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on | | | | | | |
| Prostart: VP Operations | | SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT | 443 | 903-4758 | 2020 | 3 | 28 |
| TYPED OR PRINTED | | | CODE | NUMBER | YEAR | MO | DAY |

COMMENTS AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

**Please see NCR for TSS Exceedance Reasoning**

Maryland Manors Package Plant
1500 Berkley Ct Harwood
Daily operational log sheet

**Month:** **February** **Date:** **2/1-29/2020** Submitted by (b) (4) Operator # _____

| operator | Date | day of week | Time | Weather | Temp Deg F | Rain inches | odor | raw pH | BOD | Color | MLSS | 30 min set | SVI | reactor temp | DO mg/l | Blanket feet | NH4 mg/l | ALK mg/l | NOx mg/l | waste min | Final temp C | pH | D O mg/l | UVI |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JB/CH | 1 | S | 715 | CLR | 28 | 0 | NO | 7 | | BRN | 4870 | 580 | 119 | 12.3 | 5.1 | 8 | | | | 30 | 12.1 | 7.1 | 7.1 | 0 |
| JB/CH | 2 | **S** | 915 | CLR | 38 | 0 | NO | 6.9 | | BRN | 4870 | 680 | 140 | 12.9 | 5.4 | 8 | | | | 30 | 12.8 | 7 | 8.2 | 0 |
| JB/CH | 3 | M | 1500 | CLR | 65 | 0 | NO | 7.1 | | BRN | 4870 | 680 | 140 | 13.8 | 4.9 | 9 | | | | 0 | 14.7 | 7 | 9.2 | 0 |
| DB/TH | 4 | T | 1230 | CLR | 56 | 0 | NO | 7 | | BRN | 4870 | 700 | 144 | 14.2 | 5.8 | 7 | 0.25 | 6 | 100 | 0 | 15 | 7 | 8.2 | 0 |
| DB/TH | 5 | W | **1030** | CLR | 45 | 0 | NO | 7.1 | | BRN | 5940 | 670 | 113 | 13.8 | 4.9 | 9 | | | | 0 | 14 | 7.3 | 8.6 | 0 |
| DB/TH | 6 | T | 1120 | RAIN | 40 | 0.65 | NO | 7.2 | | BRN | 5940 | 640 | 108 | 13.3 | 6 | 9.5 | 0.25 | 6 | 100 | 0 | 13.3 | 7 | 8.3 | 0 |
| DB/TH | 7 | F | 1030 | RAIN | 51 | 0.4 | NO | 7.1 | | BRN | 5940 | 590 | 99 | 13.5 | 3.5 | 8 | | | | 30 | 13.4 | 7 | 7.7 | 0 |
| DB/TH | 8 | S | 1030 | CLR | 42 | 0 | NO | 7 | | BRN | 5940 | 590 | 99 | 12.6 | 4.8 | 9.5 | | | | 30 | 12.7 | 6.7 | 9 | 0 |
| JB/CH | 9 | **S** | 1100 | CLR | 43 | 0 | NO | 7 | | BRN | 5940 | 640 | 108 | 13.1 | 2.9 | 9 | | | | 30 | 10.5 | 7 | 9.2 | 0 |
| JB/CH | 10 | M | 1500 | RAIN | 46 | 0.1 | NO | 7 | | BRN | 5940 | 600 | 101 | 14.1 | 3.1 | 10 | | | | 0 | 12.6 | 7.1 | 8.7 | 0 |
| JB/CH | 11 | T | 1450 | CLR | 54 | 0.2 | NO | 7 | | BRN | 5940 | 680 | 114 | 13.2 | 2.8 | 10 | | | | 0 | 12.6 | 7 | 8.3 | 0 |
| DB/TH | 12 | W | **1100** | CLR | 43 | 0 | NO | 7.1 | | BRN | 5770 | 700 | 121 | 13.4 | 4.6 | 9 | | | | 0 | 13.4 | 7 | 8.6 | 0 |
| DB/TH | 13 | T | 1100 | RAIN | 51 | 0.35 | NO | 7.1 | | BRN | 5770 | 680 | 118 | 13.5 | 4.6 | 10 | 0.5 | 6 | 100 | 0 | 13.7 | 6.9 | 7.9 | 0 |
| DB/TH | 14 | F | 1050 | CLR | 40 | 0 | NO | 7 | | BRN | 5770 | 720 | 125 | 12.8 | 5.5 | 9 | | | | 0 | 12.5 | 6.9 | 9.2 | 0 |
| JB/CH | 15 | S | 1600 | CLR | 36 | 0 | NO | 7 | | BRN | 5770 | 720 | 125 | 12.3 | 4.2 | 10 | 0.25 | 6 | 100 | 0 | 12.3 | 7 | 9 | 0 |
| JB/CH | 16 | **S** | 1430 | CLR | 51 | 0 | NO | 7.1 | | BRN | 5770 | 700 | 121 | 13.9 | 3.8 | 12 | | | | 0 | 11.3 | 7.1 | 6.9 | 0 |
| JB/CH | 17 | M | 840 | CLR | 36 | 0 | NO | 6.9 | | BRN | 5770 | 680 | 118 | 13.3 | 3.9 | 10 | | | | 0 | 12.3 | 7 | 8.5 | 0 |
| JB/CH | 18 | T | 900 | CLR | 41 | 0 | NO | 7 | | BRN | 5770 | 700 | 121 | 13.2 | 2.9 | 10 | | | | 0 | 11.8 | 7 | 8.1 | 0 |
| DB/TH | 19 | W | **1030** | CLR | 43 | 0 | NO | 7 | | BRN | 5710 | 740 | 130 | 13.5 | 4.6 | 10 | 0.5 | 6 | 100 | 0 | 13.2 | 6.9 | 8.5 | 0 |
| DB/TH | 20 | T | 1100 | CLR | 38 | 0 | NO | 6.9 | | BRN | 5710 | 700 | 123 | 12.9 | 4.5 | 10 | | | | 0 | 12.3 | 7 | 8.5 | 0 |
| DB/TH | 21 | F | 1100 | CLR | 30 | 0 | NO | 6.9 | | BRN | 5710 | 700 | 123 | 12.1 | 6.6 | 10 | 0.25 | 6 | 100 | 30 | 11.6 | 6.7 | 8.6 | 0 |
| DB/TH | 22 | S | 1130 | CLR | 45 | 0 | NO | 7 | | BRN | 5710 | 690 | 121 | 12.3 | 0.4 | 8.5 | | | | 30 | 11.8 | 6.7 | 7.3 | 0 |
| JB/CH | 23 | **S** | 1230 | CLR | 54 | 0 | NO | 7 | | BRN | 5710 | 650 | 114 | 13 | 0.98 | 7 | | | | 0 | 13.2 | 7.1 | 8.7 | 0 |
| JB/CH | 24 | M | 1400 | CLR | 52 | 0 | NO | 7 | | BRN | 5710 | 600 | 105 | 13.8 | 2.2 | 12 | | | | 0 | 13.6 | 7 | 8.5 | 0 |
| JB/CH | 25 | T | 1425 | CLR | 53 | 0.1 | NO | 7 | | BRN | 5710 | 650 | 114 | 13.6 | 2.1 | 11 | | | | 0 | 13.4 | 7 | 8.9 | 0 |
| DB/TH | 26 | W | **1030** | CLR | 50 | 0 | NO | 6.9 | | BRN | 5710 | 690 | 121 | 13.9 | 5.2 | 11 | 0.5 | 6 | 100 | 0 | 14 | 6.7 | 9.3 | 0 |
| DB/TH | 27 | T | 1130 | CLR | 41 | 0 | NO | 7 | | BRN | 5710 | 680 | 119 | 13.1 | 6.9 | 9 | | | | 0 | 12.7 | 6.9 | 9.9 | 0 |
| DB/TH | 28 | F | 1115 | CLR | 40 | 0 | NO | 6.9 | | BRN | 5710 | 620 | 109 | 12.7 | 6.4 | 8 | 0.25 | 3 | 100 | 30 | 12.2 | 6.8 | 9.8 | 0 |
| DB/TH | 29 | S | 1130 | CLR | 35 | 0 | NO | 7 | | BRN | 5710 | 640 | 112 | 12.4 | 6.7 | 8.5 | | | | 30 | 12 | 6.9 | 8.8 | 0 |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |

**MDM Totalizer Readings**

**Month: February**

| | Totalizer |
|---|---|
| 1/31/2020 | **46014683** |

| Date | Final Flow | GPD | MGD | Pump 1 | Total | Pump 2 | Total | UV | Total | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|
| 02/01/2020 | 46110419 | 144404 | 0.1444 | | 0 | 52827.1 | 7.1 | 2777 | 26 | Plant is only on one pump, |
| 02/02/2020 | 46254823 | 177009 | 0.1770 | | 0 | 52834.2 | 7.7 | 2803 | 30 | little storage capacity for sludge, |
| 02/03/2020 | 46431832 | 133139 | 0.1331 | | 0 | 52841.9 | 4.7 | 2833 | 24 | UV intensity sensors is out |
| 02/04/2020 | 46564971 | 141602 | 0.1416 | | 0 | 52846.6 | 5.2 | 2857 | 15 | of service. |
| 02/05/2020 | 46706573 | 170259 | 0.1703 | | 0 | 52851.8 | 6 | 2872 | 25 | |
| 02/06/2020 | 46876832 | 165340 | 0.1653 | | 0 | 52857.8 | 4.6 | 2897 | 23 | Final effluent composite sampler |
| 02/07/2020 | 47042172 | 138210 | 0.1382 | | 0 | 52862.4 | 5.2 | 2920 | 25 | is out of service sample collected |
| 02/08/2020 | 47180382 | 119688 | 0.1197 | | 0 | 52867.6 | 5.9 | 2945 | 24 | for the last two weeks were grabs. |
| 02/09/2020 | 47300070 | 148541 | 0.1485 | | 0 | 52873.5 | 7 | 2969 | 28 | |
| 02/10/2020 | 47448611 | 134295 | 0.1343 | | 0 | 52880.5 | 6 | 2997 | 23 | Pump. station is on one pump |
| 02/11/2020 | 47582906 | 115705 | 0.1157 | | 0 | 52886.5 | 4.7 | 3020 | 20 | |
| 02/12/2020 | 47698611 | 138550 | 0.1386 | | 0 | 52891.2 | 5 | 3040 | 25 | We have some major flow meter |
| 02/13/2020 | 47837161 | 131071 | 0.1311 | | 0 | 52896.2 | 4.5 | 3065 | 23 | issues or a major infiltration issues |
| 02/14/2020 | 47968232 | 138051 | 0.1381 | | 0 | 52900.7 | 5.7 | 3088 | 29 | at the plant. |
| 02/15/2020 | 48106283 | 97092 | 0.0971 | | 0 | 52906.4 | 4.3 | 3117 | 23 | |
| 02/16/2020 | 48203375 | 84096 | 0.0841 | | 0 | 52910.7 | 3.2 | 3140 | 18 | When backflush occurs at water |
| 02/17/2020 | 48287471 | 155072 | 0.1551 | | 0 | 52913.9 | 4.4 | 3158 | 25 | plant it exceeds our secondary |
| 02/18/2020 | 48442543 | 177616 | 0.1776 | | 0 | 52918.3 | 5.7 | 3183 | 25 | weir plant and overflows into the |
| 02/19/2020 | 48620159 | 139630 | 0.1396 | | 0 | 52924 | 4.6 | 3208 | 24 | final effluent. |
| 02/20/2020 | 48759789 | 150911 | 0.1509 | | 0 | 52928.6 | 5.8 | 3232 | 25 | |
| 02/21/2020 | 48910700 | 123326 | 0.1233 | | 0 | 52934.4 | 5.2 | 3257 | 24 | According to our montly flow |
| 02/22/2020 | 49034026 | 135616 | 0.1356 | | 0 | 52939.6 | 5.8 | 3281 | 25 | our avg flow for the month was |
| 02/23/2020 | 49169642 | 154757 | 0.1548 | | 0 | 52945.4 | 5.7 | 3306 | 26 | 140,000gal. |
| 02/24/2020 | 49324399 | 165377 | 0.1654 | | 0 | 52951.1 | 5.3 | 3332 | 24 | |
| 02/25/2020 | 49489776 | 155766 | 0.1558 | | 0 | 52956.4 | 4.2 | 3356 | 20 | |
| 02/26/2020 | 49645542 | 167417 | 0.1674 | | 0 | 52960.6 | 5.1 | 3376 | 24 | |
| 02/27/2020 | 49812959 | 135341 | 0.1353 | | 0 | 52965.7 | 5.1 | 3400 | 25 | |
| 02/28/2020 | 49948300 | 128840 | 0.1288 | | 0 | 52970.8 | 5.3 | 3425 | 24 | |
| 02/29/2020 | 50077140 | 93513 | 0.0935 | | 0 | 52976.1 | 5 | 3449 | 23 | |
| 03/01/2020 | 50170653 | | | | 0 | 52981.1 | | 3472 | | |
| 03/02/2020 | | | | | | | | | | |
| | | | | | 0 | 52827.1 | | 2777 | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| AVG | | **140008** | **0.1400** | | | 52906.7 | | 3126 | 24 |
| MAX | | **177616** | **0.1776** | | | 52981.1 | | 3472 | 30 |
| MIN | | **84096** | **0.0841** | | | 52827.1 | | 2777 | 15 |

| | |
|---|---|
| Total Flow (gals) | **4062457** |
| Total Flow (MG) | **4.062** |
| Avg Flow (GPD) | **131047** |
| Avg Flow (MGD) | **0.1310** |

| Date | Raw pH | Rain | Reactor DO | 30 min. SET. | Blanket | Reactor temp | Final pH | Final Flow | Final Temp | Final DO | UV Intesity | BOD | TSS | NH3 | NO2 | NO3 | Total P | Total Ortho | TKN | E Coli | Sludge Hauled |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 02/01/2020 | 7 | 0 | 5.1 | 580 | 8 | 12.3 | 7.1 | 144404 | 12.1 | 7.1 | 0 | | | | | | | | | | |
| 02/02/2020 | 6.9 | 0 | 5.4 | 680 | 8 | 12.9 | 7 | 177009 | 12.8 | 8.2 | 0 | | | | | | | | | | |
| 02/03/2020 | 7.1 | 0 | 4.9 | 680 | 9 | 13.8 | 7 | 133139 | 14.7 | 9.2 | 0 | | | | | | | | | | |
| 02/04/2020 | 7 | 0 | 5.8 | 700 | 7 | 14.2 | 7 | 141602 | 15 | 8.2 | 0 | **7.24** | **25.0** | **0.119** | **NA** | **NA** | **NA** | **NA** | **NA** | **200.5** | |
| 02/05/2020 | 7.1 | 0 | 4.9 | 670 | 9 | 13.8 | 7.3 | 170259 | 14 | 8.6 | 0 | | | | | | | | | | |
| 02/06/2020 | 7.2 | 0.65 | 6 | 640 | 9.5 | 13.3 | 7 | 165340 | 13.3 | 8.3 | 0 | | | | | | | | | | |
| 02/07/2020 | 7.1 | 0.4 | 3.5 | 590 | 8 | 13.5 | 7 | 138210 | 13.4 | 7.7 | 0 | | | | | | | | | | |
| 02/08/2020 | 7 | 0 | 4.8 | 590 | 9.5 | 12.6 | 6.7 | 119688 | 12.7 | 9 | 0 | | | | | | | | | | **2500** |
| 02/09/2020 | 7 | 0 | 2.9 | 640 | 9 | 13.1 | 7 | 148541 | 10.5 | 9.2 | 0 | | | | | | | | | | |
| 02/10/2020 | 7 | 0.1 | 3.1 | 600 | 10 | 14.1 | 7.1 | 134295 | 12.6 | 8.7 | 0 | | | | | | | | | | |
| 02/11/2020 | 7 | 0.2 | 2.8 | 680 | 10 | 13.2 | 7 | 115705 | 12.6 | 8.3 | 0 | **8.16** | **41.0** | **0.429** | **NA** | **NA** | **NA** | **NA** | **NA** | **15.0** | |
| 02/12/2020 | 7.1 | 0 | 4.6 | 700 | 9 | 13.4 | 7 | 138550 | 13.4 | 8.6 | 0 | | | | | | | | | | |
| 02/13/2020 | 7.1 | 0.35 | 4.6 | 680 | 10 | 13.5 | 6.9 | 131071 | 13.7 | 7.9 | 0 | | | | | | | | | | |
| 02/14/2020 | 7 | 0 | 5.5 | 720 | 9 | 12.8 | 6.9 | 138051 | 12.5 | 9.2 | 0 | | | | | | | | | | |
| 02/15/2020 | 7 | 0 | 4.2 | 720 | 10 | 12.3 | 7 | 97092 | 12.3 | 9 | 0 | | | | | | | | | | |
| 02/16/2020 | 7.1 | 0 | 3.8 | 700 | 12 | 13.9 | 7.1 | 84096 | 11.3 | 6.9 | 0 | | | | | | | | | | |
| 02/17/2020 | 6.9 | 0 | 3.9 | 680 | 10 | 13.3 | 7 | 155072 | 12.3 | 8.5 | 0 | | | | | | | | | | |
| 02/18/2020 | 7 | 0 | 2.9 | 700 | 10 | 13.2 | 7 | 177616 | 11.8 | 8.1 | 0 | **11.8** | **42.0** | **0.142** | **NA** | **19.30** | **1.07** | **2.65** | **3.555** | **38.4** | |
| 02/19/2020 | 7 | 0 | 4.6 | 740 | 10 | 13.5 | 6.9 | 139630 | 13.2 | 8.5 | 0 | | | | | | | | | | |
| 02/20/2020 | 6.9 | 0 | 4.5 | 700 | 10 | 12.9 | 7 | 150911 | 12.3 | 8.5 | 0 | | | | | | | | | | |
| 02/21/2020 | 6.9 | 0 | 6.6 | 700 | 10 | 12.1 | 6.7 | 123326 | 11.6 | 8.6 | 0 | | | | | | | | | | **2600** |
| 02/22/2020 | 7 | 0 | 0.4 | 690 | 8.5 | 12.3 | 6.7 | 135616 | 11.8 | 7.3 | 0 | | | | | | | | | | |
| 02/23/2020 | 7 | 0 | 0.98 | 650 | 7 | 13 | 7.1 | 154757 | 13.2 | 8.7 | 0 | | | | | | | | | | |
| 02/24/2020 | 7 | 0 | 2.2 | 600 | 12 | 13.8 | 7 | 165377 | 13.6 | 8.5 | 0 | | | | | | | | | | |
| 02/25/2020 | 7 | 0.1 | 2.1 | 650 | 11 | 13.6 | 7 | 155766 | 13.4 | 8.9 | 0 | **15.4** | **38.0** | **0.1** | **NA** | **NA** | **NA** | **NA** | **NA** | **32.4** | |
| 02/26/2020 | 6.9 | 0 | 5.2 | 690 | 11 | 13.9 | 6.7 | 167417 | 14 | 9.3 | 0 | | | | | | | | | | |
| 02/27/2020 | 7 | 0 | 6.9 | 680 | 9 | 13.1 | 6.9 | 135341 | 12.7 | 9.9 | 0 | | | | | | | | | | |
| 02/28/2020 | 6.9 | 0 | 6.4 | 620 | 8 | 12.7 | 6.8 | 128840 | 12.2 | 9.8 | 0 | | | | | | | | | | **2500** |
| 02/29/2020 | 7 | 0 | 6.7 | 640 | 8.5 | 12.4 | 6.9 | 93513 | 12 | 8.8 | 0 | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | BOD | TSS | NH3 | NO2 | NO3 | Total P | Ortho | TKN | E-Coli | **7600** |
| AVG | 7.0 | 0.06 | 4.3 | 669 | 9.43 | 13.2 | **7.0** | 139851 | 12.8 | **8.59** | 0.0 | **10.65** | **36.50** | **0.20** | | **19.30** | **1.07** | **2.65** | **3.56** | **43.98** | |
| MAX | 7.2 | 0.65 | 6.9 | 740 | 12.00 | 14.2 | **7.3** | 177616 | 15 | **9.90** | 0 | **15.40** | **42.00** | **0.43** | | **19.30** | **1.07** | **2.65** | **3.56** | | |
| MIN | 6.90 | 0 | 0.4 | 590 | 7.00 | 12.1 | **6.7** | 84096 | 10.5 | **6.90** | 0.0 | **7.24** | **25.00** | **0.10** | | **19.30** | **1.07** | **2.65** | **3.56** | | |

| | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total lbs/day | | | | | | | | | | | | 11.64 | 39.89 | 0.22 | | 21.09 | 1.17 | 2.90 | 3.89 | Geomean |
| Total lbs/mo | | | | | | | | | | | | | | | | | 36.25 | | | |
| | | | | | | | | | | | | | | | | | | | | |

| | |
|---|---|
| Total Flow (MG) | 4.062 |
| Avg Flow (MGD) | 0.131 |

| | | |
|---|---|---|
| Total Nitrogen | 24.98 | Total lbs/day |
| | 774.35 | Total lbs/mo |
| | 22.86 | Monthly Avg |
| Organic Nitrogen | 3.670 | Total lbs/day |
| | 3.358 | Monthly Avg |
| BOD | 11.64 | Avg total lbs/day |
| | 16.83 | Max total lbs/day |
| TSS | 39.89 | Avg total lbs/day |
| | 45.90 | Max total lbs/day |
| NH3 | 0.216 | Avg total lbs/day |
| | 0.469 | Max total lbs/day |