REGION 5 Enforcement and Compliance Assurance Division

Compliance Evaluation Inspection Report

Inspection Date(s):	08/02/2022 - 08/03/2022	Announced: Yes
Time:	Entry: 01:01 PM (ET)	Exit: 09:30 AM (ET)
Media:	Water	
Statute(s)/Program(s):	Clean Water Act, NPDES, WWTF	
Type of inspection:	CEI - Compliance Evaluation Inspection	
Access:	Granted	
Permittee Name:	GUN LAKE TRIBAL GAMING AUTHORITY WASTEWATER TREATMENT FACILITY	
Facility or Site Name:	GUN LAKE TRIBAL GAMING AUTHORITY WASTEWATER TREATMENT FACILITY	
Facility/Site Physical Address:	1123 129TH AVENUE	
(City, state, zip code)	WAYLAND, MI 49348	
County/Parish:	ALLEGAN	
Facility GPS Coordinates:	42.63042, -85.65445	
Facility/Site Identifier:	110039145430	
Permit Number:	MI0058661	

Persons Participating in Inspection:

Title	Name	Phone	Email	Present at Opening Conf.	Present at Closing Conf.
Lead Inspector	Dean Maraldo	(312) 353-2098	Maraldo.Dean@epa.gov	Yes	Yes
Inspector	Jake Berger	(312) 353-8024	Berger.Jake@epa.gov	Yes	Yes
Wastewater/Water Manager	Don Row	(269) 792-7734	Donald.Row@gunlakecasino.com	Yes	Yes
Facilities Manager	James Lumbard	(269) 792-7697	james.lombard@gunlakecasino.com	Yes	Yes
Environmental Director	Liz Binoniemi-Smith	(269) 397-1780 x1248	Elizabeth.Binoniemi-Smith@glt-nsn.gov	Yes	Yes
Operator	Randy Krause			No	Yes

Lead Inspector:			
Dean Maraldo	*[Signature]*	DINO MARALDO Digitally signed by DINO MARALDO Date: 2022.08.05 17:01:42 -05'00'	
	REGION 5	Maraldo.Dean@epa.gov	(312) 353-2098
Supervisor Review:			
Ryan Bahr	*[Signature]*	Bahr, Ryan Digitally signed by Bahr, Ryan Date: 2022.08.05 17:07:22 -05'00'	
	REGION 5	bahr.ryan@epa.gov	

SECTION I – INTRODUCTION

Site Entry and Inspection Objectives

I, Dean Maraldo, arrived at the Gun Lake Water Treatment building at 1:01 PM on Tuesday, August 2, 2022, for an announced inspection. I was joined by U.S. EPA inspector Jake Berger. We met Gun Lake Tribal Gaming Authority ("Authority") representatives Don Row (Wastewater/Water Manager) and James Lumbard (Facilities Manager). We were joined by Liz Binoniemi-Smith, the Gun Lake Tribe Environmental Director. We presented our EPA inspector credentials to Mr. Row and informed him that this was a REGION 5 inspection to determine compliance with the Clean Water Act ("CWA") and the National Pollutant Discharge Elimination System ("NPDES") permit program. The inspection was conducted under the authority of the Federal CWA (Section 308). The table above identifies the attendees that participated in the inspection. We conducted the opening conference and interview at the Gun Lake Water Treatment building, instead of the wastewater treatment plant, because the building had a large room with a table.

This report is based on information supplied by Authority representatives, observations made by the REGION 5 inspectors, and records and reports maintained by the Authority and the REGION 5 inspectors, including: direct observations made by the REGION 5 Inspectors, photographs taken by REGION 5 inspectors, physical evidence collected by the REGION 5 inspectors, verbal or written statements and information supplied by Authority representatives during or subsequent to the on-site Inspection, and materials, processes, data, photographs, or documents shown, demonstrated, or submitted to the REGION 5 inspectors by Authority representatives during or subsequent to the on-site Inspection. In addition, information gathered prior to or subsequent to the Inspection from a review of U.S. EPA and public records may be included in this report.

Facility/Site Description

During the opening conference, I asked Authority representatives to confirm the description of the Gun Lake Tribal Gaming Authority Wastewater Treatment Facility ("Facility") included in the latest NPDES Permit ("Permit"), issued on January 29, 2020. Mr. Row confirmed the following description:

- The Gun Lake Tribal Gaming Authority operates a 0.20 mgd (with plans to ultimately expand to 0.350 mgd) wastewater treatment facility to serve a tribal community in Allegan County, Michigan. Recent average daily flow is 0.10 MGD. The plant was built in 2010.
- The facility consists of an influent equalization basin with three influent pumps followed by flow metering and fine screening.
- Following screening, the wastewater enters the activated sludge process at the anoxic basin which provides additional flow equalization, as needed. Chemical addition of alum for phosphorus removal and

sodium hydroxide for pH adjustment occurs in the anoxic basin.

- Activated sludge is pumped from the anoxic basin to one or both pre-aeration basins which flow to one of two membrane bioreactors (MBR) for liquid/solids separation. One side of the MBR has a torn membrane.
- Final effluent is pumped to an ultra-violet light disinfection system (stainless steel, two bank system) and post aeration occurs prior to discharge to Outfall 001 (approximate coordinates N42.635684, W85.652941), to discharge to Buskirk Creek.
- Waste sludge is land applied every two years to a nearby farm.

Mr. Row said they operate one lift station at the casino. Wastewater from the tribal campus flows to the Facility via gravity flow.

I asked about ownership of the casino and Facility. Mr. Row said both the casino and Facility are owned by the Tribe (Match-E-Be-Nash-She-Wish Tribe of Pottawatomi Indians).

Facility/Site Information

Information provided by Don Row.

Responsible official	Don Row
WWTP Design Capacity & Average Daily Flow	Design Capacity 0.20 MGD; Average Daily Flow 0.10 MGD
WWTP Approx. # of residents served	NA. Facility serves casino and tribal government campus
Outfalls	Outfall 001 to Buskirk Creek
Operation schedule	Seven days a week, 7am-3pm; M-Tues, 2 operators; W-F, three operators; weekends, one operator.
Do you use in-house or contract out for laboratory analyses?	In-house for TSS, VSS, DO and pH; lab for all others
Is there currently any portion of the treatment train that is non-operational?	MBR tear
Are there any plans for renovation or additional equipment to allow for increased wastewater flow?	Yes, planned expansion to double capacity. Plan not fully developed, but likely to include new MBR system
Any CBI concerns?	No

Inspection Units

Unit	Description
Flow Monitoring	Interview
Operations and Maintenance	
Self-Monitoring	
Violation History	
Records Review	
Headworks/Primary Treatment	Physical WWTP Inspection
Secondary Treatment	
UV Treatment	
Final Effluent Trough and Outfall 001	
Lift Station	
Wastewater Plant Backup Generator	

SECTION II – OBSERVATIONS

Observations may not be in sequential order.

Unit: Interview/Flow Monitoring	**Contains CBI:** No
Observation #: DM1-OB-001	**Date:** 08/02/2022

The facility measures influent and effluent flow using magnetic flow meters. According to Mr. Row, the meters are calibrated annually and he presented a receipt showing the last calibration date in August 2021. The influent flow meter measures flow into the primary EQ tank, and the effluent flow meter measures flow after UV treatment.

Unit: Interview/Operations and Maintenance	**Contains CBI:** No
Observation #: DM1-OB-002	**Date:** 08/02/2022

I asked how the plant was running in general. Mr. Row said that other than the MBR issues, they have had some recent problems with blowers and EQ tank pumps. Both issues have been resolved and they now keep spare pump parts on hand to deal with issues if they arise. The Facility uses an electronic O&M program (Hach) that alerts staff of weekly O&M and preventative maintenance tasks. Mr. Row said the staff conduct mixed liquor process testing twice a week, and keep an eye on hydrogen sulfide issues with a monitoring device (hydrogen sulfide is a sign of treatment issues). They also monitor DO in the pre-air tanks. Bench sheets are used for daily operations notes. The facility also maintains an inventory of spare parts.

I asked if the facility experienced any bypasses or SSOs within the last few years. Mr. Row said they have never had a bypass, and no SSOs.

Facility alarms: Mr. Row said they use a SCADA-based alarm system (Win 911). The system provides a phone call, text, or email to Don Row, James Lumbard, and Randy Krause. I asked about emergency procedures. Mr. Row said they have written procedures for emergencies including floods and power outages. The plan was recently updated. The facility has a backup diesel generator which is automatically tested every Thursday. The lift station also has backup power.

Facility staff also receive annual OSHA 8-hour safety refresher training.

Unit: Interview/Self-Monitoring	**Contains CBI:** No
Observation #: DM1-OB-003	**Date:** 08/02/2022

Mr. Row confirmed that effluent composite samples are pulled from a location prior to UV disinfection and effluent grab samples are collected after UV disinfection. This is consistent with Permit requirements (Part I.A.b). Composite samplers are set up for time-proportioned samples, consistent with Permit Part II.E.6.a.

Mr. Row described the grab sample processes for *E.coli*, DO, and pH. *E.coli* samples are collected directly into lab-provided and pre-preserved bottles. DO is collected and analyzed immediately with a YSI probe, which is calibrated in the laboratory before each use. Calibration records are kept in the laboratory. pH is analyzed in the laboratory within 15 minutes of collection. Influent and effluent autosamplers are refrigerated. pH, TSS, and VSS are analyzed in the Facility lab. All other parameters analyzed at Prein & Newhof Laboratories in Grand Rapids.

Unit: Interview/Violation History	**Contains CBI:** No
Observation #: DM1-OB-004	**Date:** 08/02/2022

I asked the Facility representatives about the recent self-reported phosphorus effluent limit exceedance in May 2022. Mr. Row said he believes the May 2022 phosphorus effluent limit violation and more recent phosphorus effluent limit exceedances in June and July 2022 were attributed to membrane tears in the MBR treatment unit. He added that they likely contributed to *E.coli* effluent limit exceedances in June and July as well.

Liz Binoniemi-Smith asked why EPA's ECHO database is showing consistent reported violations for the Facility. I said it was likely due to missing permit status or progress reports. Mr. Row added that he should be up to date on all reports, and reports due on January 31, 2022 (O&M Plan report and Mercury Minimization Plan Status report), were submitted on time. I said I would look into the issue and get back to them with an update.

Mr. Row also confirmed all Additional Monitoring samples (Permit Part I.C.7) are up to date.

Unit: Physical WWTF Inspection/Headworks/Primary Treatment	**Contains CBI:** No
Observation #: DM1-OB-005	**Date:** 08/03/2022

We arrived at the Facility at 8:06 AM on August 3, 2022, and met Authority representatives Don Row, Liz Binoniemi-Smith, James Lumbard, and Randy Krause. Before starting the physical Facility inspection, I asked if the Facility receives any septage waste. Mr. Row said they do not. I also asked if there were any confidential

business information ("CBI") concerns with regard to the taking of photographs of the Facility. Mr. Row said there were no CBI concerns.

We began the physical inspection at the Equalization Tank ("EQ Tank") area. I observed the influent sampling house and the ISCO Influent Auto Sampler. The sampler was refrigerated and had a thermometer (see Photo Log image GUNL0079). However, Mr. Row said they do not maintain a temperature log.

The EQ basin is covered under a concrete slab and could not be easily observed (see Photo Log image GUNL0080). There is a grinder in the EQ basin, prior to the Fine Screen.

Next, we walked to the fine screen room, where the twin fine screen units are located (see Photo Log image GUNL0081). One of the twin screen units was off line for servicing. Mr. Row said that they only run one fine screen unit under normal operating conditions.

Photo(s)

1. GUNL0079.JPG
2. GUNL0080.JPG
3. GUNL0081.JPG

Unit: Physical WWTF Inspection/Secondary Treatment **Contains CBI:** No

Observation #: DM1-OB-006 **Date:** 08/03/2022

I observed the anoxic tank, which is partially covered by the fine screen room (see Photo Log image GUNL0082), and the two aeration tanks (see Photo Log image GUNL0083). Mr. Row pointed out the various dedicated DO meters used to monitor conditions in the aeration tanks.

After the aeration tanks, effluent flows to the MBR system, consisting of two MBR cassette systems, each with twin cassettes. Mr. Row mentioned that there are tears in both of the cassettes in one of the MBR cassette systems (see Photo Log image GUNL0084). As a result, one of the MBR cassette systems is out of service due to the tears. He confirmed that both of the MBR cassette systems are used under normal operating conditions. I asked when the torn MBR was first noticed. Mr. Row said sometime in June 2022, when they started seeing higher turbidity and phosphorus concentrations. We walked on to the concrete pad above the MBR system and I captured a photograph of the area above the MBRs (see Photo Log image GUNL0085).

Next, we walked into the Plant Building and observed the three MBR system pumps (see Photo Log image GUNL0086) and the two effluent magnetic flow meters (see Photo Log image GUNL0087). Two of the pumps send flow to dedicated effluent flow meters, and the third pump can used in place of the two other pumps, as needed. Total flow from the two effluent magnetic flow meters are measured every day to provide the Facility's daily total effluent flow. Effluent from the MBR system is pumped to the UV treatment system.

Photo(s)

1. GUNL0082.JPG
2. GUNL0083.JPG
3. GUNL0084.JPG
4. GUNL0085.JPG
5. GUNL0086.JPG
6. GUNL0087.JPG

Unit: Physical WWTF Inspection/UV Treatment	**Contains CBI:** No
Observation #: DM1-OB-007	**Date:** 08/03/2022

Final effluent is pumped to the stainless steel, two bank, ultra-violet light ("UV") disinfection system (see Photo Log image GUNL0088). There is a turbidity meter prior to the UV system. The final effluent auto sampler is next to the UV system. The Hach Sigma 1600 auto sampler is refrigerated and I noted a thermometer in the sample bin (see Photo Log image GUNL0089). The effluent auto sampler is set up for time-based composite sampling.

Photo(s)

1. GUNL0088.JPG
2. GUNL0089.JPG

Unit: Physical WWTF Inspection/Final Effluent Trough and Outfall 001	**Contains CBI:** No
Observation #: DM1-OB-008	**Date:** 08/03/2022

After UV treatment, effluent flows to final Outfall 001 via an effluent trough. We walked out of the Plant Building on top of a metal grated walkway that covered the flowing effluent trough (see Photo Log image GUNL0090). The effluent in the trough is also aerated prior to discharge to Outfall 001.

I observed the discharge from Outfall 001 into Buskirk Creek (see Photo Log image GUNL0091). The discharge and receiving water appeared clear.

I asked about return flows from the sludge process. Mr. Row said all water from the sludge dewatering process returns to the EQ basin, after the influent flow meter.

From here we took a short drive to the casino to observe the lift station.

Photo(s)

1. GUNL0090.JPG
2. GUNL0091.JPG

Unit: Physical WWTF Inspection/Lift Station	**Contains CBI:** No
Observation #: DM1-OB-09	**Date:** 08/03/2022

I observed the Facility's only lift station which, according to James Lumbard, helps to convey flow from the casino buffet area, cafeteria, dish rooms, and administrative areas. Mr. Row said all other flows are conveyed to the wastewater treatment plant via gravity flow. The lift station includes a grinder (Muffin Monster) and two submersible pumps. The grinder controls and manhole are shown in Photo Log image GUNL0092. I captured an image looking down into the lift station wet well (Photo Log image GUNL0093).

Photo(s)

1. GUNL0092.JPG
2. GUNL0093.JPG

Unit: Physical WWTF Inspection/Wastewater Plant Backup Generator	**Contains CBI:** No
Observation #: DM1-OB-010	**Date:** 08/03/2022

The last stop on the physical inspection of the wastewater plant was the backup generator (see Photo Log image GUNL0094). The diesel generator is automatically tested every Thursday.

We concluded the physical inspection of the facility at 9:08 AM on August 3, 2022.

Photo(s)

1. GUNL0094.JPG

SECTION III – RECORDS REVIEW

Records may not be in sequential order.

Record: DMR Reports		**AOC:** Yes
Ref #: DM1-RR-001	**Reviewed By:** Dean Maraldo and Jake Berger	**Reviewed Date:** 08/02/2022

I requested copies of DMRs for May and June 2022, and sampling results for phosphorus, ammonia, BOD, and *E.coli* for July 2022. Mr. Row provided copies of the requested DMRs and sampling results for the first three weeks of July for phosphorus, ammonia, BOD, and *E.coli*. I also asked for monthly operating reports ("MORs")for May and June 2022. Mr. Row provided binders with MORs for 2022.

We reviewed the requested DMRs and MORs (attached) on the afternoon of August 2, 2022. For the months of review, the Facility conducted all required monitoring pursuant to the Permit. I noted a number of permit effluent limit exceedances, including:

- May 2022: phosphorus monthly concentration limit exceedance (permit limit 0.1 mg/l; reported value of 0.15 mg/l).

- June 2022: phosphorus monthly concentration limit exceedance (permit limit 0.1 mg/l; reported value of 0.31 mg/l). *E.coli* daily limit concentration exceedance (permit limit 410 *E.coli*/100ml; reported value of 470 *E.coli*/100ml).

- July 2022: *E.coli* daily limit concentration exceedance (permit limit 410 *E.coli*/100ml; reported value of 500 *E.coli*/100ml on July 6, 2022; and 430 *E.coli*/100ml on July 20, 2022). Without the results of the last weekly phosphorus sample, a monthly average for phosphorus concentration for July could not be calculated. However, phosphorus concentrations exceeded the monthly limit of 0.1 mg/l each of the first three weeks of July, including on July 5 (0.25 mg/l), July 12 (0.194 mg/l), and July 19 (0.224 mg/l).

During the records review, I also noted an incomplete sampling bench sheet for May 27, 2022 (attached). The sheet was missing sample and analysis time and collector initials.

Mr. Row said that he thinks that the E.coli effluent limit exceedances may be attributed to sampling error. He said that he recently resampled effluent after one of his operators collected a effluent sample with elevated *E.coli*. His sample was "non-detect".

With the operations shift coming to an end at 3pm, we concluded the inspection for the day and agreed to reconvene at the wastewater plant at 8 am the next morning (8/3/2022) to complete the physical inspection of the facility and the close out conference.

Document(s)

1. MI0058661_Gun Lake_Facility Records.pdf

SECTION IV – SAMPLING ACTIVITIES AND ANALYTICAL RESULTS

No sampling was conducted.

SECTION V - AREAS OF CONCERN

Areas of Concern may not be in sequential order.

The presentation of areas of concern does not constitute a formal compliance determination or violation.

Unit: Records Review	**Area: Effluent Limit Exceedances**
DM1-RR-001	
I noted a number of permit effluent limit exceedances, including: May 2022: phosphorus monthly concentration limit exceedance (permit limit 0.1 mg/l; reported value of 0.15 mg/l). June 2022: phosphorus monthly concentration limit exceedance (permit limit 0.1 mg/l; reported value of 0.31 mg/l). *E.coli* daily limit concentration exceedance (permit limit 410 *E.coli*/100ml; reported value of 470 *E.coli*/100ml). July 2022: *E.coli* daily limit concentration exceedance (permit limit 410 *E.coli*/100ml; reported value of 500 *E.coli*/100ml on July 6, 2022; and 430 *E.coli*/100ml on July 20, 2022). Phosphorus concentrations exceeded the monthly limit of 0.1 mg/l each of the first three weeks of July, including on July 5 (0.25 mg/l), July 12 (0.194 mg/l), and July 19 (0.224 mg/l).	**Citations:** NPDES Permit Part I.A. (Final Effluent Limitations and Monitoring Requirements)

During the records review, I also noted an incomplete sampling bench sheet for May 27, 2022 (attached). The sheet was missing sample and analysis time and collector initials.	**Citations:** NPDES Permit Part II.C.5. (Records Contents)
Unit: Interview	**Area:** Violation History
DM1-OB-004	
Mr. Row said he believes the May 2022 phosphorus effluent limit violation and more recent phosphorus effluent limit exceedances in June and July 2022 were attributed to membrane tears in the MBR treatment unit. He added that they likely exceeded *E.coli* effluent limits in June and July as well, possibly attributed to the MBR tears. During the physical inspection of the MBRs, Mr. Row mentioned that there are tears in both of the cassettes in one of the MBR cassette systems. As a result, one of the MBR cassette systems is out of service. He confirmed that both MBR cassette systems are used under normal operating conditions.	**Citations:** NPDES Permit Part I.C.3 (The permittee shall at all times properly operate and maintain all facilities and systems of conveyance, treatment and control)
Unit: Physical WWTF Inspection	**Area:** Headworks/Primary Treatment
DM1-OB-005	
I observed the influent sampling house and the ISCO Influent Auto Sampler. The sampler was refrigerated and had a thermometer (see PhotoLog image GUNL0079). However, Mr. Row said they do not maintain a temperature log for the influent and effluent auto samplers.	**Citations:** 40 CFR Part 136 NPDES Permit Part II.C.3 (Monitoring Procedures)

SECTION VI – CLOSING CONFERENCE AND FOLLOW UP

Closing Conference

We conducted the closing conference in the parking lot of the wastewater treatment plant. I reviewed the preliminary areas of concerns, including the recent effluent limit exceedances for E.coli and phosphorus, and the tear in one of the MBR cassettes. I also mentioned the importance of correctly filling out daily bench sheets, including date and time of sample collection and analysis. I provided some guidance on conducting quality control testing for E.coli sampling, including collection of duplicate samples to rule out sampler error or potential cross contamination issues.

Observations and Areas of Concern have not yet been evaluated for a formal compliance determination.

I provided an estimated timeframe for completion of the inspection report and asked if there were any questions. Liz Binoniemi-Smith asked if she would receive a copy of the report. I said I would make sure to include her in the distribution list for the final report.

Follow Up

The following item was requested by the Tribe during the inspection.

Unit: Interview	**Area:** Violation History
DM1-OB-004	
Liz Binoniemi-Smith asked why EPA's ECHO database is showing consistent reporting violations for the Facility. I said it was likely due to missing permit status or progress reports. Mr. Row added that he should be up to date on all reports, and reports due on January 31, 2022 (O&M Plan report and Mercury Minimization Plan Status report), were submitted on time. I said I would look into the issue and get back to them with an update after the inspection.	

Communication Log

No additional information received by REGION 5 after exiting the Facility on 08/03/2022.

SECTION VII – LIST OF APPENDICES

1. Photo Log
2. Document Log
3. Records received during inspection (DMR Reports, bench sheets, laboratory reports)

APPENDIX 1: PHOTOLOG
All photos taken by Dean Maraldo, Inspector, U.S. EPA
Camera: Ricoh WG-4

Influent Auto Sampler GUNL0079.JPG 08/03/2022 08:23 AM (ET) Dean Maraldo Physical WWTP Inspection/Headworks/Primary Treatment No CBI No PII Note the thermometer inside the auto sampler.	
EQ Basin (under concrete slab) GUNL0080.JPG 08/03/2022 08:24 AM (ET) Dean Maraldo Physical WWTP Inspection/Headworks/Primary Treatment No CBI No PII	

Twin Fine Screen Units GUNL0081.JPG 08/03/2022 08:26 AM (ET) Dean Maraldo Physical WWTP Inspection/Headworks/Primary Treatment No CBI No PII The unit on the right of the photo was off line at the time of inspection.	
Anoxic Tank GUNL0082.JPG 08/03/2022 08:28 AM (ET) Dean Maraldo Physical WWTP Inspection/Secondary Treatment No CBI No PII	
Aeration Basins (2) GUNL0083.JPG 08/03/2022 08:28 AM (ET) Dean Maraldo Physical WWTP Inspection/Secondary Treatment No CBI No PII	

MBR Cassette GUNL0084.JPG 08/03/2022 08:31 AM (ET) Dean Maraldo Physical WWTP Inspection/Secondary Treatment No CBI No PII Note torn or split membranes on the left side of cassette.	
View of the covered MBR system GUNL0085.JPG 08/03/2022 08:33 AM (ET) Dean Maraldo Physical WWTP Inspection/Secondary Treatment No CBI No PII	
MBR Pumps (3) GUNL0086.JPG 08/03/2022 08:37 AM (ET) Dean Maraldo Physical WWTP Inspection/Secondary Treatment No CBI No PII	

Effluent Magnetic Flow Meter GUNL0087.JPG 08/03/2022 08:40 AM (ET) Dean Maraldo Physical WWTP Inspection/Secondary Treatment No CBI No PII One of two magnetic flow meters used to provide the facility's total daily effluent flow.	
UV Treatment System GUNL0088.JPG 08/03/2022 08:41 AM (ET) Dean Maraldo Physical WWTP Inspection/UV Treatment No CBI No PII	
Effluent Autosampler (Hach Sigma 1600) GUNL0089.JPG 08/03/2022 08:45 AM (ET) Dean Maraldo Physical WWTP Inspection/UV Treatment No CBI No PII Note the thermometer inside the auto sampler.	

Effluent trough to Outfall 001 GUNL0090.JPG 08/03/2022 08:47 AM (ET) Dean Maraldo Physical WWTP Inspection/Final Effluent Trough and Outfall 001 No CBI No PII Trough conveys effluent from UV treatment to final outfall 001. The trough is covered by a metal grate.	
Final Outfall 001 GUNL0091.JPG 08/03/2022 08:49 AM (ET) Dean Maraldo Physical WWTP Inspection/Final Effluent Trough and Outfall 001 No CBI No PII Effluent discharge and Buskirk Creek appeared clear.	
Lift Station Grinder GUNL0092.JPG 08/03/2022 09:00 AM (ET) Dean Maraldo Physical WWTP Inspection/Lift Station No CBI No PII The lift station includes a grinder (Muffin Monster). The grinder controls and manhole are captured in this image.	

View inside Lift Station wet well	
GUNL0093.JPG	
08/03/2022 09:01 AM (ET)	
Dean Maraldo	
Physical WWTP Inspection/Lift Station	
No CBI	
No PII	
Wastewater Treatment Plant Backup Generator	
GUNL0094.JPG	
08/03/2022 09:07 AM (ET)	
Dean Maraldo	
Physical WWTP Inspection/Wastewater Plant Backup Generator	
No CBI	
No PII	
Diesel powered generator.	

APPENDIX 2: DOCUMENT LOG (documents included in Appendix 3)

Document Type	Document Name	Contains CBI	Contains PII	Pages	Date Received
DMR Reports, bench sheets, laboratory reports	MI0058661_GunLake_Facility Records.pdf	No	No	14	08/03/2022

Appendix 3: Records received during inspection (DMR Reports, bench sheets, laboratory reports)

ermit

Permit ID:	MI0058661	Major:	
Permittee:	GUN LAKE GAMING/ENTERTAINMENT	Permittee Address:	WASTEWATER TREATMENT FACILITY WAYLAND , MI49348
Facility:	GUN LAKE GAMING/ENTERTAINMENT	Facility Location:	1123 129TH AVENUE WAYLAND , MI49348
Permitted Feature:	001 - External Outfall	Discharge:	001-A - CONTINUOUS DISCHARGE 2 BUSKIRK

Report Dates & Status

Monitoring Period:	From 06/01/22 to 06/30/22	DMR Due Date:	07/21/22
Status:	**NetDMR Validated**		

Considerations for Form Completion

Principal Executive Officer

First Name:	Sal	Last Name:	
Title:	CEO	Telephone:	269-792-7594

No Data Indicator (NODI)

Form NODI: -

Parameter Code	Parameter Name	NODI	Quantity or Loading Value 1	Quantity or Loading Value 2	Quantity or Loading Units	Quality or Concentration Value 1	Quality or Concentration Value 2	Quality or Concentration Value 3	Quality or Concentration Units	# of Ex.	Freq. of Analysis
00300	**Oxygen, dissolved [DO]**										
A - Disinfection, Process Complete		Smpl.				=7.5			19 - mg/L	0	02/07 - Twice Every Week
Season: 0		Req.				>=7.0 DAILY MN			19 - mg/L		02/07 - Twice Every Week
NODI: -		NODI									
00400	**pH**										
A - Disinfection, Process Complete		Smpl.				=7.3		=8.3	12 - SU	0	02/07 - Twice Every Week
Season: 0		Req.				>=6.5 MINIMUM		<=9.0 MAXIMUM	12 - SU		02/07 - Twice Every Week
NODI: -		NODI									
00400	**pH**										
G - Raw Sewage Influent		Smpl.				=7.8		=8.7	12 - SU	0	02/07 - Twice Every Week
Season: 0		Req.				Req Mon DAILY MN		Req Mon DAILY MX	12 - SU		02/07 - Twice Every Week
NODI: -		NODI									
00530	**Solids, total suspended**										
B - Prior to Disinfection		Smpl.	=0.5	=0.6	26 - lb/d	=1.3		=1.7	19 - mg/L	0	01/07 - Weekly
Season: 0		Req.	<=58.0 30DA AVG	<=88.0 7 DA AVG	26 - lb/d	<=20.0 30DA AVG		<=30.0 7 DA AVG	19 - mg/L		01/07 - Weekly
NODI: -		NODI									
00530	**Solids, total suspended**										
G - Raw Sewage Influent		Smpl.	=130.0		26 - lb/d	=1763.0			19 - mg/L	0	01/07 - Weekly
Season: 0		Req.	Req Mon 30DA AVG		26 - lb/d	Req Mon 30DA AVG			19 - mg/L		01/07 - Weekly
NODI: -		NODI									
00610	**Nitrogen, ammonia total [as N]**										
B - Prior to Disinfection		Smpl.	=0.064	=0.091	26 - lb/d	=0.101		=0.124	19 - mg/L	0	01/07 - Weekly
Season: 0		Req.	<=1.4 30DA AVG	<=5.8 DAILY MX	26 - lb/d	<=0.5 30DA AVG		<=2.0 DAILY MX	19 - mg/L		01/07 - Weekly
NODI: -		NODI									
X 00665	**Phosphorus, total [as P]**	Smpl.	=0.193	=0.21	26 - lb/d	=0.31			19 - mg/L	4	01/07 - Weekly

Parameter Code	Parameter Name	NODI	Quantity or Loading Value 1	Quantity or Loading Value 2	Quantity or Loading Units	Quality or Concentration Value 1	Quality or Concentration Value 2	Quality or Concentration Value 3	Quality or Concentration Units	# of Ex.	Freq. of Analysis
1 - Effluent Gross											
Season: 0		Req.	Req Mon 30DA AVG	Req Mon DAILY MX	03 - MGD						01/01 - Daily
NODI: -		NODI									
50050	**Flow, in conduit or thru treatment plant**	Smpl.	=0.107	=0.15	03 - MGD					0	99/99 - Continuous
G - Raw Sewage Influent											
Season: 0		Req.	Req Mon 30DA AVG	Req Mon DAILY MX	03 - MGD						99/99 - Continuous
NODI: -		NODI									
X 51040	**E. coli**	Smpl.				=117.0	=470.0		13 - #/100mL	1	01/07 - Weekly
A - Disinfection, Process Complete											
Season: 0		Req.				<=126.0 30DA GM	<=410.0 DAILY MX		13 - #/100mL		01/07 - Weekly
NODI: -		NODI									
80082	**BOD, carbonaceous [5 day, 20 C]**	Smpl.	=1.3	<1.7	26 - lb/d	=2.0	=2.1		19 - mg/L	0	01/07 - Weekly
B - Prior to Disinfection											
Season: 0		Req.	<=12.0 30DA AVG	<=29.0 DAILY MX	26 - lb/d	<=4.0 30DA AVG	<=10.0 DAILY MX		19 - mg/L		01/07 - Weekly
NODI: -		NODI									
80082	**BOD, carbonaceous [5 day, 20 C]**	Smpl.	=195.0		26 - lb/d	=256.0			19 - mg/L	0	01/07 - Weekly
G - Raw Sewage Influent											
Season: 0		Req.	Req Mon 30DA AVG		26 - lb/d	Req Mon 30DA AVG			19 - mg/L		01/07 - Weekly
NODI: -		NODI									
84130	**Outfall observation,visual, y/n response**	Smpl.				=1.0			9P - N=0;Y=1	0	01/07 - Weekly
1 - Effluent Gross											
Season: 0		Req.				Req Mon 7 DA AVG			9P - N=0;Y=1		01/07 - Weekly
NODI: -		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 Code	Parameter Name	Monitoring Location	Field	Type	Description	Acknowledge
51040	E. coli	A - Disinfection, 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.	
00665	Phosphorus, total [as P]	B - Prior to Disinfection	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.	

Comments

We have ruptured membranes in our MBR units. This has resulted in high bacti and phosphorus levels.

Attachments

No attachments.

Report Last Saved By

GUN LAKE GAMING/ENTERTAINMENT

User: don.row@stservices.com
Name: Don Row
E-Mail: donald.row@gunlakecasino.com
Date/Time: 2022-07-12 11:48 (Time Zone:-05:00)

Permit

Permit ID:	MI0058661	Major:	
Permittee:	GUN LAKE GAMING/ENTERTAINMENT	Permittee Address:	WASTEWATER TREATMENT FACILITY WAYLAND , MI49348
Facility:	GUN LAKE GAMING/ENTERTAINMENT	Facility Location:	1123 129TH AVENUE WAYLAND , MI49348
Permitted Feature:	001 - External Outfall	Discharge:	001-A - CONTINUOUS DISCHARGE 2 BUSKIRK

Report Dates & Status

Monitoring Period:	From 05/01/22 to 05/31/22	DMR Due Date:	07/21/22
Status:	**NetDMR Validated**		

Considerations for Form Completion

Principal Executive Officer

First Name:	Sal	Last Name:	Semola
Title:	CEO7594	Telephone:	269-792-7594

No Data Indicator (NODI)

Form NODI: -

Parameter		NODI	Quantity or Loading			Quality or Concentration				# of Ex.	Freq. of Analysis	Smpl. Type
Code	Name		Value 1	Value 2	Units	Value 1	Value 2	Value 3	Units			

Parameter		NODI	Quantity or Loading			Quality or Concentration				# of Ex.	Freq. of Analysis	Smpl. Type
Code	Name		Value 1	Value 2	Units	Value 1	Value 2	Value 3	Units			
00300	**Oxygen, dissolved [DO]**	Smpl.				=8.2			19 - mg/L	0	02/07 - Twice Every Week	GR - GRAB
A - Disinfection, Process Complete												
Season: 0		Req.				>=7.0 DAILY MN			19 - mg/L		02/07 - Twice Every Week	GR - GRAB
NODI: -		NODI										
00400	**pH**	Smpl.				=7.3		=8.2	12 - SU	0	02/07 - Twice Every Week	GR - GRAB
A - Disinfection, Process Complete												
Season: 0		Req.				>=6.5 MINIMUM		<=9.0 MAXIMUM	12 - SU		02/07 - Twice Every Week	GR - GRAB
NODI: -		NODI										
00400	**pH**	Smpl.				=8.3		=8.6	12 - SU	0	02/07 - Twice Every Week	GR - GRAB
G - Raw Sewage Influent												
Season: 0		Req.				Req Mon DAILY MN		Req Mon DAILY MX	12 - SU		02/07 - Twice Every Week	GR - GRAB
NODI: -		NODI										
00530	**Solids, total suspended**	Smpl.	=0.4	=0.7	26 - lb/d		=0.6	=1.0	19 - mg/L	0	01/07 - Weekly	24 - COMP24
B - Prior to Disinfection												
Season: 0		Req.	<=58.0 30DA AVG	<=88.0 7 DA AVG	26 - lb/d		<=20.0 30DA AVG	<=30.0 7 DA AVG	19 - mg/L		01/07 - Weekly	24 - COMP24
NODI: -		NODI										
00530	**Solids, total suspended**	Smpl.	=199.0		26 - lb/d		=262.0		19 - mg/L	0	01/07 - Weekly	24 - COMP24
G - Raw Sewage Influent												
Season: 0		Req.	Req Mon 30DA AVG		26 - lb/d		Req Mon 30DA AVG		19 - mg/L		01/07 - Weekly	24 - COMP24
NODI: -		NODI										
00610	**Nitrogen, ammonia total [as N]**	Smpl.	=0.056	=0.084	26 - lb/d		=0.088	=0.132	19 - mg/L	0	01/07 - Weekly	24 - COMP24
B - Prior to Disinfection												
Season: 0		Req.	<=1.4 30DA AVG	<=5.8 DAILY MX	26 - lb/d		<=0.5 30DA AVG	<=2.0 DAILY MX	19 - mg/L		01/07 - Weekly	24 - COMP24
NODI: -		NODI										
X 00665	**Phosphorus, total [as P]**	Smpl.	=0.095	=0.25	26 - lb/d		=0.15		19 - mg/L	1	01/07 - Weekly	24 - COMP24
B - Prior to Disinfection												
Season: 0		Req.	<=0.29 30DA AVG	<=0.58 7 DA AVG	26 - lb/d		<=0.1 30DA AVG		19 - mg/L		01/07 - Weekly	24 - COMP24
NODI: -		NODI										
50050	**Flow, in conduit or thru treatment plant**	Smpl.	=0.082	=0.132	03 - MGD					0	01/01 - Daily	RT - RCOTOT
1 - Effluent Gross												
Season: 0		Req.	Req Mon 30DA AVG	Req Mon DAILY MX	03 - MGD						01/01 - Daily	RT - RCOTOT
NODI: -		NODI										
50050	**Flow, in conduit or thru treatment plant**	Smpl.	=0.094	=0.153	03 - MGD					0	99/99 - Continuous	RT - RCOTOT
G - Raw Sewage Influent												
Season: 0		Req.	Req Mon 30DA AVG	Req Mon DAILY MX	03 - MGD						99/99 - Continuous	RT - RCOTOT
NODI: -		NODI										
51040	**E. coli**	Smpl.					=9.0	=39.0	13 - #/100mL	0	01/07 - Weekly	GR - GRAB
A - Disinfection, Process Complete												
Season: 0		Req.					<=126.0 30DA GM	<=410.0 DAILY MX	13 - #/100mL		01/07 - Weekly	GR - GRAB
NODI: -		NODI										
80082	**BOD, carbonaceous [5 day, 20 C]**	Smpl.	=1.4	=1.8	26 - lb/d		=2.2	=2.6	19 - mg/L	0	01/07 - Weekly	24 - COMP24
B - Prior to Disinfection												
Season: 0		Req.	<=12.0 30DA AVG	<=29.0 DAILY MX	26 - lb/d		<=4.0 30DA AVG	<=10.0 DAILY MX	19 - mg/L		01/07 - Weekly	24 - COMP24
NODI: -		NODI										
80082	**BOD, carbonaceous [5 day, 20 C]**	Smpl.	=173.0		26 - lb/d		=232.0		19 - mg/L	0	01/07 - Weekly	24 - COMP24
G - Raw Sewage Influent												

Parameter Code	Parameter Name	NODI	Quantity or Loading Value 1	Quantity or Loading Value 2	Quantity or Loading Units	Quality or Concentration Value 1	Quality or Concentration Value 2	Quality or Concentration Value 3	Quality or Concentration Units	# of Ex.	Freq. of Analysis	Smpl. Type
Season: 0		Req.	Req Mon 30DA AVG		26 - lb/d		Req Mon 30DA AVG		19 - mg/L		01/07 - Weekly	24 - COMP24
NODI: -		NODI										
84130	**Outfall observation,visual, y/n response**	Smpl.					=1.0		9P - N=0;Y=1	0	01/07 - Weekly	VI - VISUAL
1 - Effluent Gross												
Season: 0		Req.					Req Mon 7 DA AVG		9P - N=0;Y=1		01/07 - Weekly	VI - VISUAL
NODI: -		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 Code	Parameter Name	Monitoring Location	Field	Type	Description	Acknowledge
00665	Phosphorus, total [as P]	B - Prior to Disinfection	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.	✓

Comments

Lab results are questionable, we have since turned alum feed up.

Attachments

No attachments.

Report Last Saved By

GUN LAKE GAMING/ENTERTAINMENT

User:	don.row@stservices.com
Name:	Don Row
E-Mail:	donald.row@gunlakecasino.com
Date/Time:	2022-06-10 09:45 (Time Zone:-05:00)

Report Last Signed By

User:	don.row@stservices.com
Name:	Don Row
E-Mail:	donald.row@gunlakecasino.com
Date/Time:	2022-06-10 09:46 (Time Zone:-05:00)

June 2022

		Parmeter											
		Effluent											
Date	Day of Week	Flow	CBOD	CBOD lbs	TSS	TSS lbs	NH_3	NH_3 lbs	P	P lbs	E-Coli	D.O.	pH
6/1/2022	Wed	0.085											
6/2/2022	Thu	0.081											
6/3/2022	Fri	0.096											
6/4/2022	Sat	0.094										7.5	8.31
6/5/2022	Sun	0.098											
6/6/2022	Mon	0.085											
6/7/2022	Tue	0.071	<2.0	1.2	1	0.6	0.078	0.05	0.35	0.21			
6/8/2022	Wed	0.092									<1	8.3	7.25
6/9/2022	Thu	0.091											
6/10/2022	Fri	0.098										7.7	7.33
6/11/2022	Sat	0.103											
6/12/2022	Sun	0.102											
6/13/2022	Mon	0.084											
6/14/2022	Tue	0.100	<2.0	1.7	0.5	0.4	0.109	0.09	0.365	0.30			
6/15/2022	Wed	0.108									14	7.6	7.51
6/16/2022	Thu	0.108											
6/17/2022	Fri	0.121										9.0	7.52
6/18/2022	Sat	0.120											
6/19/2022	Sun	0.086											
6/20/2022	Mon	0.084											
6/21/2022	Tue	0.084	<2.0	1.4	0.5	0.4	0.0936	0.07	0.141	0.10	242		
6/22/2022	Wed	0.077										9.1	7.48
6/23/2022	Thu	0.085											
6/24/2022	Fri	0.101										8.0	7.52
6/25/2022	Sat	0.091											
6/26/2022	Sun	0.092											
6/27/2022	Mon	0.069											
6/28/2022	Tue	0.050	2.12	0.9	1.2	0.5	0.124	0.05	0.39	0.16			
6/29/2022	Wed	0.057									470	8.9	7.31
6/30/2022	Thu	0.100											
	Total	2.713											
	Average	**0.090**	**2.0**	**1.3**	**0.8**	**0.5**	**0.101**	**0.064**	**0.31**	**0.193**	**117**		
	Min	0.050	2.0	0.9	0.5	0.4	0.078	0.046	0.14	0.10		**7.5**	**7.3**
	Max	**0.121**	**2.1**	**1.7**	1.2	0.6	0.124	0.091	0.39	0.30	**470**		**8.3**
	# Data	30	4	4	4	4	4	4	4	4	3	8	8
	%Removal		99.2%		99.5%		#DIV/0!		#DIV/0!				

Gun Lake Casino Wa[illegible]ater Treatment Facility
NPDES Permit No. MI-005[illegible]1, Monthly Operating Report

May 2022

		Parmeter											
		Effluent											
Date	Day of Week	Flow	CBOD	CBOD lbs	TSS	TSS lbs	NH_3	NH_3 lbs	P	P lbs	E-Coli	D.O.	pH
5/1/2022	Sun	0.089											
5/2/2022	Mon	0.074											
5/3/2022	Tue	0.076	2.59	1.6	0.6	0.4	0.0744	0.05	0.067	0.04	<1		
5/4/2022	Wed	0.081										9.9	7.67
5/5/2022	Thu	0.091											
5/6/2022	Fri	0.095										9.9	7.5
5/7/2022	Sat	0.099											
5/8/2022	Sun	0.101											
5/9/2022	Mon	0.074											
5/10/2022	Tue	0.085	2.52	1.8	1	0.7	0.071	0.05	0.05	0.04	2		
5/11/2022	Wed	0.092										9.7	7.54
5/12/2022	Thu	0.128											
5/13/2022	Fri	0.132										10.1	7.3
5/14/2022	Sat	0.101											
5/15/2022	Sun	0.088											
5/16/2022	Mon	0.063											
5/17/2022	Tue	0.067	<2.0	1.1	0.3	0.2	0.075	0.04	0.066	0.04	39		
5/18/2022	Wed	0.074										9.9	7.51
5/19/2022	Thu	0.077											
5/20/2022	Fri	0.101										8.2	7.48
5/21/2022	Sat	0.089											
5/22/2022	Sun	0.085											
5/23/2022	Mon	0.004											
5/24/2022	Tue	0.000											
5/25/2022	Wed	0.094										8.9	
5/26/2022	Thu	0.081	<2.0	1.4	0.6	0.4	0.0853	0.06	0.363	0.25	9		
5/27/2022	Fri	0.089										9.0	8.17
5/28/2022	Sat	0.098											
5/29/2022	Sun	0.075											
5/30/2022	Mon	0.073											
5/31/2022	Tue	0.076	<2.0	1.3	0.6	0.4	0.132	0.08	0.18	0.12			
	Total	2.552											
	Average	**0.082**	**2.2**	**1.4**	**0.6**	**0.4**	**0.088**	**0.056**	**0.15**	**0.095**	**9**		
	Min	0.000	2.0	1.1	0.3	0.2	0.071	0.042	0.05	0.04		**8.2**	**7.3**
	Max	**0.132**	**2.6**	**1.8**	1.0	0.7	0.132	0.084	0.36	0.25	**39**		**8.2**
	# Data	31	5	5	5	5	5	5	5	5	3	8	7
	%Removal		99.0%		99.8%		99.7%		97.5%				

NPDES Permit No. MI0058661
pH

Standard Methods for the Examination of Water and Wastewater, Method 4500 - H+ B (Electrometric Method), 2000

Analysis Date:	**Analyst:**
Comments:	**Slope** 92.2

Buffer	Manufacturer	Lot Number	Date Received	Date Opened	Expiration Date
pH 4.00					
pH 7.00					
pH 10.00					
pH 7.00 for Calib Check					

Sample ID	Sample Date	Sample Time	Sample Type	Collector Initials	Analysis Time	Sample Temp (°C)	pH (S.U.)	QC
Standard #1, pH 4.00	5/20/22	11:30		GL	1200			
Standard #2, pH 7.00								
Standard #3, pH 10.0								% Standard Recovery =
Calibration Check, pH 7.00								
Final Effluent (NPDES)			Grab			23.1	7.48	
Final Effluent Duplicate			Grab					
Raw (NPDES)			Grab			23.1	8.26	
Raw Duplicate			Grab					
Standard #1 7.00	05/27/22						7.01	
Standard #2 10.00	05/27/22						10.05	
Calibration	05/27/22						7.00	
FE							8.17	
RAW							8.61	

NOTE:

% Standard Recovery =

$$\frac{\text{Observed Value (S.U.)}}{\text{Actual Value (S.U.)}} \times 100$$

QUALITY CONTROL CHECKLIST

Slope within QC limits?	☐ Yes ☐ No	UCL _____	LCL _____
Percent Recovery for check sample within QC limits?	☐ Yes ☐ No	UCL _____	LCL _____
Range Between Duplicates for Final acceptable?	☐ Yes ☐ No	UCL _____	LCL _____
Range Between Duplicates for Influent acceptable?	☐ Yes ☐ No	UCL _____	LCL _____
Are data acceptable for reporting?	☐ Yes ☐ No		

Reviewed by: _____ Date: _____

Prein&Newhof
Engineers ▪ Surveyors ▪ Environmental ▪ Laboratory

Analytical Report

(consolidated)

WO#: **2207D65**

Date Reported: **7/25/2022**

CLIENT:	Gun Lake Casino	**Collection Date:**	7/19/2022 8:30:00 AM
Project:	WTTP	**Received Date:**	7/20/2022 9:00:00 AM
Lab ID:	2207D65-02	**Matrix:**	WASTEWATER
Client Sample ID:	Effluent	**Sampled By:**	AK

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
BOD, 5 DAY CARBONACEOUS				**SM5210B-2011**	**A5210B**	Analyst: **SJ**
Carbonaceous BOD-5	< 2.00	2.00		mg/L	1	7/25/2022 8:00:00 AM
Prep Start: 7/20/2022 1:15:00 PM	Prep End: 7/25/2022 8:00:00 AM	Prep Initials: SJ				
AMMONIA AS N				**SM4500NH3D-2011**		Analyst: **TE**
Nitrogen, Ammonia	0.0356	0.0300		mg/L	1	7/21/2022 4:28:41 PM
PHOSPHOROUS, TOTAL AS P				**SM4500-PE-2011**		Analyst: **JS**
Phosphorus, Total (As P)	0.224	0.0100		mg/L	1	7/21/2022 10:00:00 AM

Qualifiers:

<	Not Detected at the Reporting Limit	H	Holding times for preparation or analysis exceeded
MCL	Maximum Contaminant Level	PL	Permit Limit
RL	Reporting Limit		

Original

3260 Evergreen Drive, NE Grand Rapids, MI 49525 t.616-364-7600 f. 616-364-4222 www.preinnewhof.com

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Analytical Report

(consolidated)

WO#: **2207262**

Date Reported: **7/12/2022**

CLIENT:	Gun Lake Casino	**Collection Date:**	7/6/2022 10:00:00 AM
Project:	WTTP	**Received Date:**	7/6/2022 1:10:00 PM
Lab ID:	2207262-03	**Matrix:**	WASTEWATER
Client Sample ID:	Effluent Grab	**Sampled By:**	AK

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
E. COLI				**EPA 1603**		Analyst: **CM**
E. coli	500	1.00		Colonies/100ml	1	7/6/2022 3:00:00 PM

Qualifiers:

<	Not Detected at the Reporting Limit
MCL	Maximum Contaminant Level
RL	Reporting Limit
H	Holding times for preparation or analysis exceeded
PL	Permit Limit
S	Spike Recovery outside accepted recovery limits

Original

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Analytical Report

(consolidated)

WO#: **2207853**

Date Reported: **7/18/2022**

CLIENT:	Gun Lake Casino	**Collection Date:**	7/13/2022 9:15:00 AM
Project:	WTTP	**Received Date:**	7/13/2022 10:55:00 AM
Lab ID:	2207853-03	**Matrix:**	WASTEWATER
Client Sample ID:	Effluent Grab	**Sampled By:**	AK

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
E. COLI				**EPA 1603**		Analyst: **CM**
E. coli	< 1.00	1.00		Colonies/100ml	1	7/13/2022 2:00:00 PM

Qualifiers:

<	Not Detected at the Reporting Limit	H	Holding times for preparation or analysis exceeded
MCL	Maximum Contaminant Level	PL	Permit Limit
RL	Reporting Limit		

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Analytical Report

(consolidated)

WO#: **2207D65**

Date Reported: **7/25/2022**

CLIENT:	Gun Lake Casino	**Collection Date:**	7/20/2022 8:10:00 AM
Project:	WTTP	**Received Date:**	7/20/2022 9:00:00 AM
Lab ID:	2207D65-03	**Matrix:**	WASTEWATER
Client Sample ID:	Effluent Grab	**Sampled By:**	AK

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
E. COLI				**EPA 1603**		Analyst: **SJ**
E. coli	430	1.00		Colonies/100ml	1	7/20/2022 1:00:00 PM

Qualifiers:

<	Not Detected at the Reporting Limit
MCL	Maximum Contaminant Level
RL	Reporting Limit
H	Holding times for preparation or analysis exceeded
PL	Permit Limit

Original

3260 Evergreen Drive, NE Grand Rapids, MI 49525 t.616-364-7600 f. 616-364-4222 www.preinnewhof.com

Analytical Report

(consolidated)

WO#: **2207853**

Date Reported: **7/18/2022**

CLIENT:	Gun Lake Casino	**Collection Date:**	7/12/2022 8:30:00 AM
Project:	WTTP	**Received Date:**	7/13/2022 10:55:00 AM
Lab ID:	2207853-02	**Matrix:**	WASTEWATER
Client Sample ID:	Effluent	**Sampled By:**	AK

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
BOD, 5 DAY CARBONACEOUS				**SM5210B-2011**	**A5210B**	Analyst: **SJ**
Carbonaceous BOD-5	< 2.00	2.00		mg/L	1	7/18/2022 8:00:00 AM
Prep Start: 7/13/2022 1:10:00 PM	Prep End: 7/18/2022 8:00:00 AM	Prep Initials: SJ				
AMMONIA AS N				**SM4500NH3D-2011**		Analyst: **TE**
Nitrogen, Ammonia	0.0353	0.0300		mg/L	1	7/15/2022 2:22:48 PM
PHOSPHOROUS, TOTAL AS P				**SM4500-PE-2011**		Analyst: **AB**
Phosphorus, Total (As P)	0.194	0.0100		mg/L	1	7/15/2022 12:08:34 PM

Qualifiers:

<	Not Detected at the Reporting Limit	H	Holding times for preparation or analysis exceeded
MCL	Maximum Contaminant Level	PL	Permit Limit
RL	Reporting Limit		

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Analytical Report

(consolidated)

WO#: **2207262**

Date Reported: **7/12/2022**

CLIENT:	Gun Lake Casino	**Collection Date:**	7/5/2022 10:00:00 AM
Project:	WTTP	**Received Date:**	7/6/2022 1:10:00 PM
Lab ID:	2207262-02	**Matrix:**	WASTEWATER
Client Sample ID:	Effluent	**Sampled By:**	AK

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
BOD, 5 DAY CARBONACEOUS				**SM5210B-2011**	**A5210B**	Analyst: **SJ**
Carbonaceous BOD-5	2.46	2.00		mg/L	1	7/11/2022 8:00:00 AM
Prep Start: 7/6/2022 2:10:00 PM	Prep End: 7/11/2022 8:00:00 AM	Prep Initials: SJ				
AMMONIA AS N				**SM4500NH3D-2011**		Analyst: **TE**
Nitrogen, Ammonia	0.0794	0.0300		mg/L	1	7/12/2022 8:36:49 AM
PHOSPHOROUS, TOTAL AS P				**SM4500-PE-2011**		Analyst: **AB**
Phosphorus, Total (As P)	0.250	0.0100		mg/L	1	7/11/2022 12:27:56 PM

Qualifiers:

<	Not Detected at the Reporting Limit	H	Holding times for preparation or analysis exceeded
MCL	Maximum Contaminant Level	PL	Permit Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Original

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