Pennsylvania Department of Environmental Protection

Northwest Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Application Type	**Renewal**	Application No.	**PA0222879**
Facility Type	**Non-Municipal**	APS ID	**1066581**
Major / Minor	**Minor**	Authorization ID	**1401593**

Applicant and Facility Information

Applicant Name	**Thomas C Heenan**	Facility Name	**Hickory Creek Wilderness Ranch**
Applicant Address	PO Box 93 2516 Economite Road E	Facility Address	Economite Road
	Tidioute, PA 16351-0093		Tidioute, PA 16351
Applicant Contact	Thomas Heenan	Facility Contact	
Applicant Phone	(814) 484-7520	Facility Phone	
Client ID	111366	Site ID	482648
Ch 94 Load Status		Municipality	Limestone Township
Connection Status		County	Warren
Date Application Received	June 30, 2022	EPA Waived?	Yes
Date Application Accepted		If No, Reason	

Purpose of Application: This is an application to renew a privately owned minor facility that has not yet been constructed.

Summary of Review

The subject application is for the renewal of an NPDES permit for a horse trail riding / rodeo recreational facility discharging to an unnamed tributary to Camp Run with an exceptional value (EV) designated use. The treatment facilities and associated discharge have not been constructed with exception of the septic tank which is currently used as a holding tank. The existing septic tank (holding tank) is permitted at 16,000-gallons including 10,000-gallons of flow equalization but is reported to only be a 10,000-gallon septic tank (holding tank). Proposed is a minor treated sewage discharge to a dry un-named tributary of Camp Run.

At the time of the original permit issuance (September 7, 1999), the receiving stream was designated as High Quality – Cold Water Fishery (HQ-CWF) with Social and Economic Justification (SEJ) approval for a high-quality cold-water fishery dated June 23, 1999. Camp Run discharges to East Hickory Creek and this stream was reassessed as part of a Water Quality Standards Review Stream Redesignation Evaluation dated May 2006. The Evaluation recommended the designated use for East Hickory Creek, including tributaries, to be changed from HQ-CWF to Exceptional Value (EV). The stream was reclassified as EV on April 3, 2010, with publication in the Pennsylvania Bulletin as part of the Blue Eye Run et al stream reclassification. The Department provided public notice of the stream evaluation and requested any technical data from the general public through publication in the Pennsylvania Bulletin on April 27, 2002 (32 Pa.B. 2162). A similar notice was published on April 26, 2002, in the Times Observer as well as 4 other newspapers in the localities of the other streams evaluated. The May 2006 Water Quality Standards Review Stream Redesignation Evaluation stated that there were no NPDES permitted discharges located in the basin. Additionally, Limestone Township was notified of the evaluation.

Future expansion and/or increased flows beyond the permitted flow will be subject to the requirements of 25 Code Chapter 93 and the Water Quality Antidegredation Implementation Guidance document.

The following is a timeline of the permit history:

Approve	Deny	Signatures	Date
X		Dustin Hargenrater Dustin Hargenrater / Project Manager	March 14, 2025
X		Adam Olesnanik Adam Olesnanik, P.E. / Environmental Engineer Manager	March 14, 2025

Summary of Review

- December 24, 1998 – Planning approved
- June 23, 1999 - SEJ approval for HQ stream discharge
- September 7, 1999 – NPDES Permit (PA0222879) issued with an effective date of 10/1/1999.
- May 8, 2000 – WQM Permit (6200402) issued
- July 17, 2003 – WQM Permit (6200402) amended to change sand filter design
- May 31, 2005 – NPDES Permit reissued with an effective date of 6/1/2005.
- February 9, 2010 – NPDES Permit Renewal Application received
- April 3, 2010 – Stream reclassified as EV
- June 7, 2011 - NPDES Permit reissued with an effective date of 7/1/2011.
- July 5, 2012 – Site meeting held with SEO to review onlot alternatives.
- March 26, 2013 through March 27, 2013 – Email exchange discussing onlot alternatives reviewed at site meeting held on 7/5/2012. Last email provides confirmation from permittee on plans to proceed with pursuing onlot alternatives.
- July 1, 2015 – Reminder letter sent to remind permittee that renewal application is due 1/2/2016 (permit expiration date of 6/30/2016)
- May 11, 2016 – NPDES Permit Renewal Application received LATE (due on 1/2/2016)
- March 24, 2017 – Technical Deficiency Letter sent
- April 12, 2017 – TD Response Letter received (dated 4/5/2017)
- April 26, 2017 – Email sent to permittee providing background information from 7/5/2012 site meeting
- June 14, 2017 – Email from applicant providing additional response to TD letter/emails

There have been no new developments in this case since issuance of the last permit. There was a complaint filed in July of 2024 and the inspection report is as follows:

“Due to a public complaint of sewage odor and overflow, I scheduled a site visit through property owner, Tom Heenan, Jr. (814-730-0499) I arrived on site at approximately 1 PM and shortly after met with Tom Heenan, Sr., who accompanied me to a 10,000-gallon septic holding tank. A hand drawn sketch is provided on Photo 1, and pictures of the concrete tank are provided on Photos 2-3. There is an approximately 10" access cover on the corner of the receiving end of the tank, as shown on Photo 4 and an approximately 24-inch access cover on the opposite corner. There is no flow measurement device or high-level alarm on the tank. There was no evidence of overflow observed around the tank. We subsequently met with Chuck Van Riper, father-in-law of Tom Heenan Jr., who drove us around for an overview tour of the campground. Per Mr. Heenan, there are 66 sites with water/sewage hookups, 2 cabins, and 4-5 acres for primitive camping. There is a porta potty in the primitive camping area. Site amenities include a laundry/shower/restroom building and a dump station. I also met Richard and Shar Wilkerson, campground host/hostess. As shown in Photo 5, the dump station is a pipe in the ground, which routes to the holding tank. Campers connect independently, and we discussed the potential for spillage. I recommended a sloped concrete pad with berm around the pipe to contain any potential spills. No sewage odor was detected during the inspection or during pre and post inspection travel on Economite Road. A tank pumping records summary was emailed from Jennifer Heenan on 7/31/24 (Photo 6). In 2023, from 5/5 - 10/9/23, 17,500 gallons were hauled. In 2024, from 4/23 - 7/19/24, 20,000 gallons has been hauled by Bush Septic. The site's permit renewal application was received on 6/30/22 in the Northwest Regional Office. During the 2017 permit renewal process, it was noted that the facility had indicated a plan to hire a soil scientist and further investigate onlot sewage disposal options. Further paperwork review is pending as part of the renewal process.”

Investigation into the site for this renewal prompted a meeting between section chiefs and the program manager. The Department would strongly encourage the permittee to investigate non-discharge alternatives with consideration that a non-discharge alternative such as on-lot disposal and/or hauling would be most protective of the receiving streams designated exceptional value (EV). On-lot disposal may provide the facility with more flexibility for future expansion considering that future expansion and/or increased flows beyond the permitted flow will be subject to the requirements of 25 Code Chapter 93 and the Water Quality Antidegredation Implementation Guidance document (document number 391-0300-002). Mr. Heenan gets the holding tank pumped out on a weekly basis during operational season.

Sludge use and disposal description and location(s): Sewage is collected in a 10,000-gallon holding tank and pumped out weekly during operational months. No discharge or treatment occurs at the facility.

Summary of Review
Public Participation DEP will publish notice of the receipt of the NPDES permit application and a tentative decision to issue the individual NPDES permit in the *Pennsylvania Bulletin* in accordance with 25 Pa. Code § 92a.82. Upon publication in the *Pennsylvania Bulletin*, DEP will accept written comments from interested persons for a 30-day period (which may be extended for one additional 15-day period at DEP's discretion), which will be considered in making a final decision on the application. Any person may request or petition for a public hearing with respect to the application. A public hearing may be held if DEP determines that there is significant public interest in holding a hearing. If a hearing is held, notice of the hearing will be published in the *Pennsylvania Bulletin* at least 30 days prior to the hearing and in at least one newspaper of general circulation within the geographical area of the discharge.

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	.0037
Latitude	4º 39' 36.30"	Longitude	-79º 20' 39.92"
Quad Name	Cobham	Quad Code	41079F3
Wastewater Description:	Sewage Effluent		
Receiving Waters	Camp Run (EV)	Stream Code	Dry Stream Discharge – Perennial Conditions at Stream Code 55689
NHD Com ID	100471023	RMI	0.7300
Drainage Area	0.038	Yield (cfs/mi^2)	0.001
Q_{7-10} Flow (cfs)	0.001	Q_{7-10} Basis	Dry Stream Discharge – USGS StreamStats
Elevation (ft)	1559	Slope (ft/ft)	---
Watershed No.	16-F	Chapter 93 Class.	EV
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Attaining Use(s)		
Cause(s) of Impairment			
Source(s) of Impairment			
TMDL Status		Name	

Background/Ambient Data		Data Source
pH (SU)	6.8	Based on WQN 862. An alternative is 6.5 and the default is 7.0
Temperature (°F)	20	Default
Hardness (mg/L)	100	Default
Other:		

Nearest Downstream Public Water Supply Intake		Aqua Pennsylvania Inc. - Emlenton	
PWS Waters	Allegheny River	Flow at Intake (cfs)	1,376
PWS RMI	90.0	Distance from Outfall (mi)	78

Changes Since Last Permit Issuance: No changes since last permit issuance, the treatment facility still has yet to be constructed.

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** .0037
Latitude 41º 39' 44.39" **Longitude** -79º 20' 59.32"
Wastewater Description: Sewage Effluent

Technology-Based Limitations

The following technology-based limitations apply, subject to water quality analysis and BPJ where applicable:

Pollutant	Limit (mg/l)	SBC	Federal Regulation	State Regulation
$CBOD_5$	25	Average Monthly	133.102(a)(4)(i)	92a.47(a)(1)
	40	Average Weekly	133.102(a)(4)(ii)	92a.47(a)(2)
Total Suspended Solids	30	Average Monthly	133.102(b)(1)	92a.47(a)(1)
	45	Average Weekly	133.102(b)(2)	92a.47(a)(2)
pH	6.0 – 9.0 S.U.	Min – Max	133.102(c)	95.2(1)
Fecal Coliform (5/1 – 9/30)	200 / 100 ml	Geo Mean	-	92a.47(a)(4)
Fecal Coliform (5/1 – 9/30)	1,000 / 100 ml	IMAX	-	92a.47(a)(4)
Fecal Coliform (10/1 – 4/30)	2,000 / 100 ml	Geo Mean	-	92a.47(a)(5)
Fecal Coliform (10/1 – 4/30)	10,000 / 100 ml	IMAX	-	92a.47(a)(5)
Total Residual Chlorine	0.5	Average Monthly	-	92a.48(b)(2)

Comments: Currently, the site has not be constructed; therefore, the limitations from the previous permit will be retained in this renewal. The current limitations in the previous permit for CBOD5, Ammonia-Nitrogen, and D.O are more stringent that the limits in the table above due to the discharge being to a dry stream and additional human-health concerns.

Water Quality-Based Limitations

As the facility has not yet been built, a “Reasonable Potential Analysis” could not be conducted. The existing limits are more stringent than the technology-based limits above and should be retained to protect the EV classification of the stream.

Comments: WQM 7.0 was ran to see if Ammonia-Nitrogen criteria have changed within the last permit term. The model from the last renewal was replicated with updated site-specific data and produced effluent limitations for Ammonia-Nitrogen that did not change from the last permit renewal.

Best Professional Judgment (BPJ) Limitations

Comments: No additional BPJ limitations are being considered at this time.

Anti-Backsliding

No parameters are eligible for backsliding.

Additional Comments

E. Coli monitoring has been introduced in this renewal permit based on the SOP for Establishing Effluent Limitations in Individual Sewage Applications. For facilities less than .005 MGD it is recommended that E. Coli be monitor only on a yearly basis.

Proposed Effluent Limitations and Monitoring Requirements

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (386-0400-001), SOPs and/or BPJ.

Outfall 001, Effective Period: Permit Effective Date through Permit Expiration Date.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	XXX	XXX	XXX	XXX	XXX	1/week	Estimate
pH (S.U.)	XXX	XXX	6.0	XXX	9.0	9	1/day	Grab
DO	XXX	XXX	6.0	XXX	XXX	XXX	1/day	Grab
CBOD5	XXX	XXX	XXX	10.0	XXX	20	2/month	8-Hr Composite
TSS	XXX	XXX	XXX	10.0	XXX	20	2/month	8-Hr Composite
Fecal Coliform (CFU/100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	10000	XXX	2/month	Grab
Fecal Coliform (CFU/100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	1000	XXX	2/month	Grab
E. Coli (No./100 ml)	XXX	XXX	XXX	XXX	XXX	Report	1/year	Grab
Total Nitrogen	XXX	XXX	XXX	5.0	XXX	10	2/month	8-Hr Composite
Ammonia Nov 1 - Apr 30	XXX	XXX	XXX	9.0	XXX	18	2/month	8-Hr Composite
Ammonia May 1 - Oct 31	XXX	XXX	XXX	3.0	XXX	6	2/month	8-Hr Composite
Total Phosphorus	XXX	XXX	XXX	0.5	XXX	1	2/month	8-Hr Composite
UV Dosage (mWsec/cm^2)	XXX	XXX	XXX	Report	XXX	XXX	1/day	Measured

Compliance Sampling Location: Outfall 001, after disinfection.

WQM 7.0 Modeling Output Files

WQM 7.0 Effluent Limits

SWP Basin	Stream Code	Stream Name
16F	55689	CAMP RUN

RMI	Name	Permit Number	Disc Flow (mgd)	Parameter	Effl. Limit 30-day Ave. (mg/L)	Effl. Limit Maximum (mg/L)	Effl. Limit Minimum (mg/L)
1.620	HCW STP	PA0222879	0.004	CBOD5	10		
				NH3-N	3	6	
				Dissolved Oxygen			6

WQM 7.0 Wasteload Allocations

SWP Basin	Stream Code	Stream Name
16F	55689	CAMP RUN

NH3-N Acute Allocations

RMI	Discharge Name	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multiple WLA (mg/L)	Critical Reach	Percent Reduction
1.620	HCW STP	NA	6	12.18	6	0	0
1.269		NA	NA	11.45	NA	NA	NA

NH3-N Chronic Allocations

RMI	Discharge Name	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multiple WLA (mg/L)	Critical Reach	Percent Reduction
1.620	HCW STP	NA	3	1.62	3	0	0
1.269		NA	NA	1.39	NA	NA	NA

Dissolved Oxygen Allocations

RMI	Discharge Name	CBOD5		NH3-N		Dissolved Oxygen		Critical Reach	Percent Reduction
		Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)		
1.62	HCW STP	10	10	3	3	6	6	0	0
1.27		NA	NA	NA	NA	NA	NA	NA	NA

WQM 7.0 D.O.Simulation

SWP Basin	Stream Code	Stream Name
16F	55689	CAMP RUN

RMI	Total Discharge Flow (mgd)	Analysis Temperature (°C)	Analysis pH
1.620	0.004	20.033	7.297
Reach Width (ft)	**Reach Depth (ft)**	**Reach WDRatio**	**Reach Velocity (fps)**
0.768	0.250	3.077	0.030
Reach CBOD5 (mg/L)	**Reach Kc (1/days)**	**Reach NH3-N (mg/L)**	**Reach Kn (1/days)**
9.93	1.500	2.98	0.702
Reach DO (mg/L)	**Reach Kr (1/days)**	**Kr Equation**	**Reach DO Goal (mg/L)**
6.015	27.068	Owens	NA
Reach Travel Time (days)			
0.713			

Subreach Results

TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
0.071	8.92	2.83	7.75
0.143	8.02	2.70	8.08
0.214	7.20	2.56	8.20
0.285	6.47	2.44	8.24
0.357	5.81	2.32	8.24
0.428	5.22	2.21	8.24
0.499	4.69	2.10	8.24
0.571	4.22	2.00	8.24
0.642	3.79	1.90	8.24
0.713	3.40	1.81	8.24

RMI	Total Discharge Flow (mgd)	Analysis Temperature (°C)	Analysis pH
1.269	0.004	24.458	7.024
Reach Width (ft)	**Reach Depth (ft)**	**Reach WDRatio**	**Reach Velocity (fps)**
1.606	0.366	4.395	0.090
Reach CBOD5 (mg/L)	**Reach Kc (1/days)**	**Reach NH3-N (mg/L)**	**Reach Kn (1/days)**
2.15	0.124	0.20	0.986
Reach DO (mg/L)	**Reach Kr (1/days)**	**Kr Equation**	**Reach DO Goal (mg/L)**
8.242	30.887	Owens	5
Reach Travel Time (days)			
0.489			

Subreach Results

TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
0.049	2.14	0.19	7.61
0.098	2.12	0.18	7.61
0.147	2.11	0.17	7.61
0.196	2.09	0.16	7.61
0.245	2.07	0.15	7.61
0.293	2.06	0.15	7.61
0.342	2.04	0.14	7.61
0.391	2.03	0.13	7.61
0.440	2.01	0.13	7.61
0.489	2.00	0.12	7.61

WQM 7.0 Modeling Specifications

Parameters	Both	Use Inputted Q1-10 and Q30-10 Flows	☑
WLA Method	EMPR	Use Inputted W/D Ratio	☐
Q1-10/Q7-10 Ratio	0.64	Use Inputted Reach Travel Times	☐
Q30-10/Q7-10 Ratio	1.36	Temperature Adjust Kr	☑
D.O. Saturation	90.00%	Use Balanced Technology	☑
D.O. Goal	5		

WQM 7.0 Hydrodynamic Outputs

SWP Basin	Stream Code	Stream Name
16F	55689	CAMP RUN

RMI	Stream Flow (cfs)	PWS With (cfs)	Net Stream Flow (cfs)	Disc Analysis Flow (cfs)	Reach Slope (ft/ft)	Depth (ft)	Width (ft)	W/D Ratio	Velocity (fps)	Reach Trav Time (days)	Analysis Temp (°C)	Analysis pH
Q7-10 Flow												
1.620	0.00	0.00	0.00	.0057	0.07446	.25	.77	3.08	0.03	0.713	20.03	7.30
1.269	0.05	0.00	0.05	.0057	0.02265	.366	1.61	4.39	0.09	0.489	24.46	7.02
Q1-10 Flow												
1.620	0.00	0.00	0.00	.0057	0.07446	NA	NA	NA	0.03	0.714	20.02	7.30
1.269	0.03	0.00	0.03	.0057	0.02265	NA	NA	NA	0.07	0.607	24.20	7.04
Q30-10 Flow												
1.620	0.00	0.00	0.00	.0057	0.07446	NA	NA	NA	0.03	0.712	20.04	7.30
1.269	0.06	0.00	0.06	.0057	0.02265	NA	NA	NA	0.11	0.418	24.59	7.02

Input Data WQM 7.0

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
16F	55689	CAMP RUN	**1.620**	1559.00	0.04	0.00000	0.00	☐

Stream Data

Design Cond.	LFY (cfsm)	Trib Flow (cfs)	Stream Flow (cfs)	Rch Trav Time (days)	Rch Velocity (fps)	WD Ratio	Rch Width (ft)	Rch Depth (ft)	Tributary Temp (°C)	Tributary pH	Stream Temp (°C)	Stream pH
Q7-10	0.001	0.00	0.00	0.000	0.000	0.0	0.00	0.00	25.00	7.00	0.00	0.00
Q1-10		0.00	0.00	0.000	0.000							
Q30-10		0.00	0.00	0.000	0.000							

Discharge Data

Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	Disc Temp (°C)	Disc pH
HCW STP	PA0222879	0.0037	0.0037	0.0037	0.000	20.00	7.30

Parameter Data

Parameter Name	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)
CBOD5	10.00	0.00	0.00	1.50
Dissolved Oxygen	6.00	8.24	0.00	0.00
NH3-N	3.00	0.00	0.00	0.70

Input Data WQM 7.0

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
16F	55689	CAMP RUN	**1.269**	1421.00	0.05	0.00000	0.00	☑

Stream Data

Design Cond.	LFY (cfsm)	Trib Flow (cfs)	Stream Flow (cfs)	Rch Trav Time (days)	Rch Velocity (fps)	WD Ratio	Rch Width (ft)	Rch Depth (ft)	Tributary Temp (°C)	Tributary pH	Stream Temp (°C)	Stream pH
Q7-10	0.000	0.05	0.00	0.000	0.000	0.0	0.00	0.00	25.00	7.00	0.00	0.00
Q1-10		0.00	0.00	0.000	0.000							
Q30-10		0.00	0.00	0.000	0.000							

Discharge Data

Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	Disc Temp (°C)	Disc pH
		0.0000	0.0000	0.0000	0.000	25.00	7.00

Parameter Data

Parameter Name	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)
CBOD5	8.53	2.00	0.00	1.50
Dissolved Oxygen	6.58	8.24	0.00	0.00
NH3-N	15.07	0.00	0.00	0.70

Input Data WQM 7.0

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
16F	55689	CAMP RUN	**0.550**	1335.00	0.07	0.00000	0.00	☑

Stream Data

Design Cond.	LFY (cfsm)	Trib Flow (cfs)	Stream Flow (cfs)	Rch Trav Time (days)	Rch Velocity (fps)	WD Ratio	Rch Width (ft)	Rch Depth (ft)	Tributary Temp (°C)	Tributary pH	Stream Temp (°C)	Stream pH
Q7-10	0.000	0.07	0.00	0.000	0.000	0.0	0.00	0.00	25.00	7.00	0.00	0.00
Q1-10		0.00	0.00	0.000	0.000							
Q30-10		0.00	0.00	0.000	0.000							

Discharge Data

Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	Disc Temp (°C)	Disc pH
		0.0000	0.0000	0.0000	0.000	25.00	7.00

Parameter Data

Parameter Name	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)
CBOD5	25.00	2.00	0.00	1.50
Dissolved Oxygen	6.00	8.24	0.00	0.00
NH3-N	25.00	0.00	0.00	0.70