

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)



PERMITTEE NAME/ADDRESS (include Facility Name/Location if different):

NAME: Howard Seymour Water Reclamation Plant  
 ADDRESS: 116 American Legion Road, Lewes, DE 19958 US  
 FACILITY: Howard Seymour Water Reclamation Plant  
 LOCATION: 116 American Legion Road, Lewes, DE 19958 US

DE0021512 PERMIT NUMBER  
 001 DISCHARGE NUMBER  
 MONITORING PERIOD  
 FROM 2023 04 01 TO 2023 04 30

REPORT DESIGNATOR: A  
 DATA ENTRY COMPLETE: 5/23/2023  
 REPORT SUBMITTED BY: jkerin  
 STATUS OF SUBMISSION: Submitted for Signature

#	PARAMETER	NDI	QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX.	FREQUENCY OF ANALYSIS	SAMPLE TYPE
			AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
1/1	Flow	SAMPLE MEASUREMENT	0.907	1.26	Mil Gal/Day				--	0	99/99	RCOTOT
	Gross Effluent (50050)	PERMIT REQUIREMENT	No Limit   Monitoring Req'd	No Limit   Monitoring Req'd	Mil Gal/Day	No Monitoring Required	No Monitoring Required	No Monitoring Required	--	--	99/99	RCOTOT
1/2	Dissolved oxygen (DO)	SAMPLE MEASUREMENT			--	3.02		5.18	mg/l	0	99/99	Imersion
	Gross Effluent (00300)	PERMIT REQUIREMENT	No Monitoring Required	No Monitoring Required	--	No Limit   Monitoring Req'd	No Monitoring Required	No Limit   Monitoring Req'd	mg/l	--	99/99	Imersion
1/3	pH	SAMPLE MEASUREMENT			--	6.9		7.3	Std pH Units	0	01/01	Grab
	Gross Effluent (00400)	PERMIT REQUIREMENT	No Monitoring Required	No Monitoring Required	--	6	No Monitoring Required	9	Std pH Units	--	01/01	Grab
1/4	Enterococcus	SAMPLE MEASUREMENT			--	<1		2	CFU/100 ML	0	01/07	Grab
	Gross Effluent (31639)	PERMIT REQUIREMENT	No Monitoring Required	No Monitoring Required	--	No Monitoring Required	10	104	CFU/100 ML	--	01/07	Grab
1/5	BOD5	SAMPLE MEASUREMENT	<18	20	lbs/Day		<2.5	2.8	mg/l	0	01/07	Composite 24
	Gross Effluent (00310)	PERMIT REQUIREMENT	188	288	lbs/Day	No Monitoring Required	15	23	mg/l	--	01/07	Composite 24
1/6	BOD5	SAMPLE MEASUREMENT			--		186	186	mg/l	0	01/30	Composite 24
	Raw Sewage (00310)	PERMIT REQUIREMENT	No Monitoring Required	No Monitoring Required	--	No Monitoring Required	No Limit   Monitoring Req'd	No Limit   Monitoring Req'd	mg/l	--	01/30	Composite 24
1/7	TSS	SAMPLE MEASUREMENT	<4	4	lbs/Day		<0.5	0.6	mg/l	0	01/07	Composite 24
	Gross Effluent (00530)	PERMIT REQUIREMENT	188	288	lbs/Day	No Monitoring Required	15	23	mg/l	--	01/07	Composite 24

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

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	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 MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.	[ATTACH DIGITAL SIGNATURE RECEIPT FROM CROMERR]	TELEPHONE	DATE	
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		YEAR	MO

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REPORT DESIGNATOR: A  
 DATA ENTRY COMPLETE: 5/23/2023  
 REPORT SUBMITTED BY: jkerin  
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#	PARAMETER	MEASUREMENT	NDI	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX.	FREQUENCY OF ANALYSIS	SAMPLE TYPE	
				AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM				UNITS
2/1	TSS	SAMPLE MEASUREMENT				--		162	162	mg/l	0	01/30	Composite 24
	Raw Sewage (00530)	PERMIT REQUIREMENT	-	No Monitoring Required	No Monitoring Required	--	No Monitoring Required	No Limit   Monitoring Req'd	No Limit   Monitoring Req'd	mg/l	--	01/30	Composite 24
2/2	Total Nitrogen	SAMPLE MEASUREMENT		24.5	24.5	lbs/Day		3.3	3.3	mg/l	0	01/30	Composite 24
	Gross Effluent (00600)	PERMIT REQUIREMENT	-	100	No Limit   Monitoring Req'd	lbs/Day	No Monitoring Required	8	No Limit   Monitoring Req'd	mg/l	--	01/30	Composite 24
2/3	Phosphorus, Total	SAMPLE MEASUREMENT		<0.4	<0.4	lbs/Day		<0.05	<0.05	mg/l	0	01/30	Composite 24
	Gross Effluent (00665)	PERMIT REQUIREMENT	-	25	No Limit   Monitoring Req'd	lbs/Day	No Monitoring Required	2	No Limit   Monitoring Req'd	mg/l	--	01/30	Composite 24

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NDI (No Data Indicator) Reasons: 8 - No Sample (Other); 9 - No Sample (Monitoring Not Required this Monitoring Period); B - Not Detected; C - No Sample (No Discharge)

# Monthly Operations Report: April 2023

Site: LEWES WWTP

FINAL EFFLUENT OUTFALL 001																	
DATE	DAY	Flow	BOD		TSS		Enteroc.	Total P		Total N		Ammonia as N		Nitrite + Nitrate		TKN	
		MGD	mg/L	lbs	mg/L	lbs	col/100ml	mg/L	lbs	mg/L	lbs	mg/L	lbs	mg/L	lbs	mg/L	lbs
1	Sat.	0.992															
2	Sun.	0.827															
3	Mon.	0.814															
4	Tue.	0.890	<2.4	<18	<0.5	<4		<0.1	<0.37	3.3	24.48	0.1	1	2.6	19	0.7	5
5	Wed.	0.874					<1.0										
6	Thu.	0.904															
7	Fri.	0.940															
8	Sat.	0.953															
9	Sun.	0.864															
10	Mon.	0.853															
11	Tue.	0.819	<2.4	<16	<0.5	<3											
12	Wed.	0.834					<1.0										
13	Thu.	0.864															
14	Fri.	0.946															
15	Sat.	0.904															
16	Sun.	0.890															
17	Mon.	0.793															
18	Tue.	0.839	<2.4	<17	0.6	4											
19	Wed.	0.861					<1.0										
20	Thu.	0.843															
21	Fri.	0.947															
22	Sat.	0.968															
23	Sun.	0.874															
24	Mon.	0.876															
25	Tue.	0.841	2.8	20	<0.5	<4											
26	Wed.	0.860					2.0										
27	Thu.	0.861															
28	Fri.	1.157															
29	Sat.	1.069															
30	Sun.	1.260															
TOTAL		27.2152															
AVERAGE		0.9072	<2.50	<17.65	<0.53	<3.70	1.2	<0.05	<0.37	3.30	24.48	0.11	0.82	2.62	19.44	0.69	5.12
MAXIMUM		1.2595	2.80	19.60	0.60	4.20	2.00	<0.05	<0.37	3.30	24.48	0.11	0.82	2.62	19.44	0.69	5.12
MINIMUM		0.7932	<2.40	<16.40	<0.50	<3.40	<1.00	<0.05	<0.37	3.30	24.48	0.11	0.82	2.62	19.44	0.69	5.12
Removal (%)			98.7		99.7												

INFLUENT						
DATE	DAY	Flow	BOD		TSS	
		MGD	mg/L	lbs	mg/L	lbs
1	Sat.	0.922				
2	Sun.	0.613				
3	Mon.	0.752				
4	Tue.	0.826	186.0	1281	162.0	1116
5	Wed.	0.845				
6	Thu.	0.839				
7	Fri.	0.918				
8	Sat.	0.874				
9	Sun.	0.842				
10	Mon.	0.808				
11	Tue.	0.784				
12	Wed.	0.781				
13	Thu.	0.815				
14	Fri.	0.838				
15	Sat.	0.860				
16	Sun.	0.847				
17	Mon.	0.819				
18	Tue.	0.802				
19	Wed.	0.797				
20	Thu.	0.811				
21	Fri.	0.863				
22	Sat.	0.889				
23	Sun.	1.033				
24	Mon.	0.864				
25	Tue.	0.852				
26	Wed.	0.844				
27	Thu.	0.863				
28	Fri.	1.055				
29	Sat.	1.237				
30	Sun.	1.117				
TOTAL		26.0100				
AVERAGE		0.87	186	1,281	162	1,116
MAXIMUM		1.24	186	1,281	162	1,116
MINIMUM		0.61	186	1,281	162	1,116
Removal (%)						

# LEWES WWTF

## NUTRIENT OFFSET REPORT 2023

Month	Days	Average Monthly Flow	Monthly Average TN	Total Monthly TN Discharged	TN Based 16.9 lbs Manure Offset Required	Monthly Average TP	Total Monthly TP Discharged	TP Based 285 lbs Manure Offset Required	Max Manure Equivalent	Poultry Manure Relocated	Poultry Manure Offset Balance
		MGD	mg/L	lbs	Tons	mg/L	lbs	Tons	Tons	Tons	Tons
Carry Over											400.29
January	31	0.8609	4.78	1,063.92	8.99	0.06	13.35	1.90	8.99	-	391.30
February	28	0.8134	7.61	1,445.48	12.21	0.11	20.89	2.98	12.21	-	379.09
March	31	0.8603	3.10	689.51	5.83	<0.05	11.12	1.58	5.83	-	373.26
April	30	0.9072	3.30	749.04	6.33	<0.05	11.35	1.62	6.33	-	366.93
May	31		-		-	-			-		-
June	30		-		-	-			-		-
July	31		-		-	-			-		-
August	31		-		-	-			-		-
September	30		-		-	-			-		-
October	31		-		-	-			-		-
November	30		-		-	-			-		-
December	31		-		-	-			-		-
Year Balance											366.93

Comments:

\_\_\_\_\_  
Authorized Signatory

\_\_\_\_\_  
Date

Work Orders Completed in Prior Month

WO No.	Asset Description	Brief Description	Comments	Work Completed Date	WO Type
2157	Howard Seymour STP	Monthly Training and Recordkeeping Inspection	All monthly training completed.	05/01/2023	PM
2301	Lewes Flow Meters	Annual Flowmeter Calibration	All flow meters calibrated on 5/2/2023 by Seth Horney	05/02/2023	PM
2305	LS #74 Cape Shores	Transformer replacement	After transformer went down we brought in a backup generator to run the pump station. Once the generator was hooked up and we sent power to the panel, the transformer which converts 240 to 120 to operate our controls began to smoke and caught fire. This melted the transformer. After we had the transformer disconnected we were only able to operate the pumps manually. We got a new transformer from United Electric the next morning. Andy installed the transformer and got the pumps working in auto again.	05/02/2023	CORRECTIVE
2228	Howard Seymour STP	Weekly Universal Waste Inspection	Inspection completed. No issues.	05/04/2023	PM
2238	Blowers	Weekly Oil Check	All blowers checked. No issues noted.	05/04/2023	PM
2300	Lewes DO Probes	Weekly DO meter PM	All probes cleaned and calibrated.	05/04/2023	PM
2232	Exhaust Fan 3 (Process Building)	Corrective Action Needed - See Comments	Replaced belts. Greased fittings. Fan operating normally.	05/05/2023	ICM
2237	Lewes Turbidimeters	Daily Turbidity Meter PM	All probes wiped daily.	05/05/2023	PM
2235	Howard Seymour STP	Weekly Universal Waste Inspection	Inspection complete. No issues noted.	05/09/2023	PM
2296	Overhead Trolley 1	Hoist Inspection - Monthly	Inspection completed. No issues found.	05/09/2023	PM
2297	Overhead Trolley 2	Hoist Inspection - Monthly	Inspection completed. No issues found.	05/09/2023	PM
2298	Hoist	Hoist Inspection - Monthly	Inspection completed. No issues found.	05/09/2023	PM
2299	Overhead Crane Davit Arm Second Floor	Hoist Inspection - Monthly	Inspection completed. No issues found.	05/09/2023	PM
2309	Lewes DO Probes	Weekly DO meter PM	Probes cleaned and calibrated.	05/09/2023	PM
2317	LS #4 Gills Neck Savannah	Change lights for PS to LED	Lights in pump station have been inconsistent. Changed over lights from fluorescent to LED to save energy cost as well as make the lights more dependable.	05/10/2023	PROACTIVE
2318	LS #13 Schley Avenue at the old Power Plant	Electrical repairs	Andy replaced an overload relay at the PS. He also replaced a GFI outlet and cover.	05/10/2023	REACTIVE
2208	Howard Seymour STP	Semi-Annual HVAC PM	Service was completed by Sherman Corp. This service was set up by the BPW.	05/12/2023	PM
2291	Generator, Main Plant	Monthly Generator Inspection	Had low D.C. volt alarm. Made adjustment to correct. All fluids good. Battery and belts good.	05/12/2023	PM



## Work Orders Completed in Prior Month

WO No.	Asset Description	Brief Description	Comments	Work Completed Date	WO Type
2292	Generator	Monthly Generator Inspection	All fluids. Good battery and belts.	05/12/2023	PM
2293	Generator	Monthly Generator Inspection	All fluids are good. Belts look to be in good shape.	05/12/2023	PM
2287	Portable Water Pump, Gas	Monthly Rolling Stock PM	PM completed on both Honda and Godwin pumps. No issues reported.	05/15/2023	PM
2295	1 Ton Hoist, Process Building	Hoist Inspection - Monthly	Hoist inspection complete. No issues to report.	05/15/2023	PM
2306	Lewes Turbidimeters	Daily Turbidity Meter PM	All probes wiped daily.	05/15/2023	PM
2247	Howard Seymour STP	Monthly Machinery and Equipment Inspection	Inspection completed. New ladder is needed for dumpster. Cable for hoist in headworks building is fraying and should look at being replaced.	05/16/2023	PM
2253	Howard Seymour STP	Weekly Universal Waste Inspection	Weekly inspection completed. No issues to report.	05/16/2023	PM
2313	Lewes DO Probes	Weekly DO meter PM	Meters cleaned and calibrated.	05/16/2023	PM
2314	Digester Blower 1	Oil change and filter clean	Oil in blower changed and filter cleaned.	05/16/2023	PROACTIVE
2315	Digester Blower 2	Oil change and filter clean	Oil in blower changed and filter cleaned.	05/16/2023	PROACTIVE
2316	Membrane Digester Blower	Oil change and filter clean	Oil in blower changed and filter cleaned.	05/16/2023	PROACTIVE
2252	Howard Seymour STP	Monthly SPCC Inspection	Inspection completed. No issues reported.	05/17/2023	PM
2285	Pressure Washer	Monthly Rolling Stock PM	PM completed. Pump oil added.	05/17/2023	PM
2286	Gehl Skid Steer	Monthly Rolling Stock PM	PM completed. Greased all fittings.	05/17/2023	PM
2288	Ford F350 Crane Truck	Monthly Rolling Stock PM	PM completed. No issues reported.	05/17/2023	PM
2289	Snowblower	Monthly Rolling Stock PM	PM completed. No issues reported.	05/17/2023	PM
2245	Howard Seymour STP	Monthly Electrical System Inspection	Inspection completed. No issues reported.	05/19/2023	PM
2246	Howard Seymour STP	Monthly Material Handling and Storage Inspection	Inspection completed. No issues reported.	05/22/2023	PM
2249	Howard Seymour STP	Monthly Protective and Emergency Equipment Inspection	Inspection completed. New face shields and chemical gloves on order as inspection noted that they needed to be replaced.	05/22/2023	PM
2308	Howard Seymour STP	Weekly Universal Waste Inspection	Weekly inspection completed. No problems found.	05/22/2023	PM
2310	Lewes Turbidimeters	Daily Turbidity Meter PM	All probes wiped daily.	05/22/2023	PM
2242	Howard Seymour STP	Monthly General Safety Inspection	Inspection completed. No issues to report.	05/23/2023	PM
2243	Howard Seymour STP	Monthly Housekeeping Inspection	Inspection completed. New clamps & screws needed on the trains.	05/23/2023	PM
2244	Howard Seymour STP	Monthly Fire Prevention and Emerg Action Inspctn	Inspection completed. All extinguishers good.	05/23/2023	PM
2250	Howard Seymour STP	Monthly Chemical Processing and Storage Inspection	Inspection complete. 50% caustic line needs replaced/repaired. 25% caustic containment in need of repair. New firehose sections needed (2 on order).	05/23/2023	PM

Work Orders Completed in Prior Month

WO No.	Asset Description	Brief Description	Comments	Work Completed Date	WO Type
2251	Howard Seymour STP	Monthly Universal Waste Inspection	Inspection completed. No issues reported.	05/23/2023	PM
2254	LS #1 U of D	Pump Station Monthly Inspection	Not secure needs 2 locks. Pumps operating. FOG 3/10.	05/23/2023	PM
2255	LS #2 Pilottown Rodney Ave	Pump Station Monthly Inspection	Pumps run. FOG 3/10.	05/23/2023	PM
2258	LS #5 California Ave	Pump Station Monthly Inspection	Wet well doors have no safety stops, no handle on one side. Floats good. Pumps operating. Medium FOG.	05/23/2023	PM
2259	LS #6 Connecticut Ave	Pump Station Monthly Inspection	No locks. Door to wet well needs repaired. Floats good. Light FOG.	05/23/2023	PM
2260	LS #7 Cape Henlopen Dr Pilot Point	Pump Station Monthly Inspection	Outside light needs to be fixed. Wood gate broken. Pumps run. FOG 6/10	05/23/2023	PM
2264	LS #11 Hoornkill Avenue	Pump Station Monthly Inspection	Wet well vault door unsafe, no hinges or locks. Pumps operating. FOG 9/10.	05/23/2023	PM
2267	LS #14 Harborview Road	Pump Station Monthly Inspection	Weeds need to be addressed around wet well. Pumps operating. FOG 9/10.	05/23/2023	PM
2268	LS #15 Cape Henlopen Dr Port Lewes	Pump Station Monthly Inspection	Water bib does not work. Area needs to be cleaned up. Needs new 8x8 PVC cover. Pumps both run. Floats good. FOG 4/10.	05/23/2023	PM
2273	LS #19 Pilottown Village Ocean Blvd	Pump Station Monthly Inspection	No locks. Gate to wooden fence broke and in need of repair. Overgrown vegetation. Pumps operating. No FOG.	05/23/2023	PM
2282	LS #33 DNREC Station	Pump Station Monthly Inspection	Not secure needs 2 locks. Pumps running. FOG 4/10	05/23/2023	PM
2283	LS #74 Cape Shores	Pump Station Monthly Inspection	Water bib does not work. Generator not functional. Area around PS needs maintenance. Floats good. FOG 4/10. Both pumps good.	05/23/2023	PM
2284	LS #83	Pump Station Monthly Inspection	Lights not working at PS. Both pumps running but sound loud, may need maintenance. Generator not functioning. Electrical cabinet does not close completely. Basket needs lifted and cleaned. FOG 6/10.	05/23/2023	PM
2303	Tower Hill	Pump Station Monthly Inspection	No issues found.	05/23/2023	PM
2256	LS #3 Pilottown Marina	Pump Station Monthly Inspection	Outside light needs repaired. Pipes coming in need sealed. Station needs cleaned. Need 100' hose incase of pump priming need.	05/24/2023	PM
2262	LS #9 Sussex Drive	Pump Station Monthly Inspection	Floats good. Pumps operating normally. Medium FOG.	05/24/2023	PM
2265	LS #12 Market Street Devon Inn	Pump Station Monthly Inspection	Heavy FOG 10/10. Could not see floats due to FOG. Need new manhole catch basin.	05/24/2023	PM
2270	LS #17 Savannah Road Huling Cove	Pump Station Monthly Inspection	Heavy FOG 10/10. Pumps operating normally.	05/24/2023	PM
2271	LS #17B	Pump Station Monthly Inspection	Heavy FOG 10/10. Pumps operating normally.	05/24/2023	PM
2257	LS #4 Gills Neck Savannah	Pump Station Monthly Inspection	Pump station checked daily.	05/25/2023	PM

Work Orders Completed in Prior Month

WO No.	Asset Description	Brief Description	Comments	Work Completed Date	WO Type
2261	LS #8, American Legion	Pump Station Monthly Inspection	Pump station checked daily.	05/25/2023	PM
2263	LS #10 Reserves	Pump Station Monthly Inspection	Needs lock. Gate door needs repaired. Pumps operating normally. Floats cleaned. Light FOG.	05/25/2023	PM
2266	LS #13 Schley Avenue at the old Power Plant	Pump Station Monthly Inspection	Light FOG. Pumps operating normally. Floats clear.	05/25/2023	PM
2269	LS #16 Henlopen Gardens	Pump Station Monthly Inspection	Outlet not working. Needs outside light. FOG 10/10. Pump 1 not operational. In process of getting materials to replace floats with transducer and replace wiring in PS.	05/25/2023	PM
2272	LS #18 Drake Knoll	Pump Station Monthly Inspection	FOG Heavy. Float tree needs to be pulled and cleaned. Pumps operating normally. Spider infestation needs to be addressed.	05/25/2023	PM
2274	LS #20 Monroe Ave	Pump Station Monthly Inspection	All normal. No issues.	05/25/2023	PM
2275	LS #21 Monroe Ave	Pump Station Monthly Inspection	All normal. No issues.	05/25/2023	PM
2276	LS #22 Monroe Ave	Pump Station Monthly Inspection	All normal. No issues.	05/25/2023	PM
2277	LS #23 Monroe Ave	Pump Station Monthly Inspection	All normal. No issues.	05/25/2023	PM
2278	LS #25 Monroe Ave	Pump Station Monthly Inspection	All normal. No issues.	05/25/2023	PM
2279	LS #29 Washington Street	Pump Station Monthly Inspection	All normal. No issues.	05/25/2023	PM
2280	LS #30 Washington Street	Pump Station Monthly Inspection	All normal. No issues.	05/25/2023	PM
2294	5 Ton Hoist, Process Building	Hoist Inspection - Monthly	Inspection completed. Hoist functioning properly. No issues reported.	05/25/2023	PM
2302	Blowers	Monthly Blower Inspection / PM	All blowers inspected.	05/25/2023	PM
2307	Blowers	Weekly Oil Check	All blower oil levels checked daily.	05/25/2023	PM
2311	Blowers	Weekly Oil Check	All blower oil levels checked daily.	05/25/2023	PM
2319	Lewes Turbidimeters	Daily Turbidity Meter PM	All meters wiped daily.	05/25/2023	PM
2322	Lewes DO Probes	Weekly DO meter PM	Probes cleaned and calibrated.	05/25/2023	PM
2290	Edge Loader Brush	Monthly Rolling Stock PM	PM completed. No issues reported.	05/30/2023	PM
2304	Lewes Exhaust Fans	Monthly Exhaust Fan Inspection	Inspection completed. No issues reported.	05/30/2023	PM
2312	Howard Seymour STP	Weekly Universal Waste Inspection	Universal waste check completed. No issues to report.	05/30/2023	PM
2320	Blowers	Weekly Oil Check	All blowers checked. No issues reported.	05/30/2023	PM
2248	Howard Seymour STP	Monthly Training and Recordkeeping Inspection	All employee training up to date. All safety meetings held.	05/31/2023	PM
2281	LS #32 Canary Creek	Pump Station Monthly Inspection	Medium FOG. 2 GFI's need replaced.	05/31/2023	PM
2337	Lewes DO Probes	Weekly DO meter PM	Probes calibrated. Slopes recorded in comments.	05/31/2023	PM

Printed 88 items



Work Orders Completed in Prior Month

WO No.	Asset Description	Brief Description	Comments	Work Completed Date	WO Type
2157	Howard Seymour STP	Monthly Training and Recordkeeping Inspection	All monthly training completed.	05/01/2023	PM
2301	Lewes Flow Meters	Annual Flowmeter Calibration	All flow meters calibrated on 5/2/2023 by Seth Horney	05/02/2023	PM
2305	LS #74 Cape Shores	Transformer replacement	After transformer went down we brought in a backup generator to run the pump station. Once the generator was hooked up and we sent power to the panel, the transformer which converts 240 to 120 to operate our controls began to smoke and caught fire. This melted the transformer. After we had the transformer disconnected we were only able to operate the pumps manually. We got a new transformer from United Electric the next morning. Andy installed the transformer and got the pumps working in auto again.	05/02/2023	CORRECTIVE
2228	Howard Seymour STP	Weekly Universal Waste Inspection	Inspection completed. No issues.	05/04/2023	PM
2238	Blowers	Weekly Oil Check	All blowers checked. No issues noted.	05/04/2023	PM
2300	Lewes DO Probes	Weekly DO meter PM	All probes cleaned and calibrated.	05/04/2023	PM
2232	Exhaust Fan 3 (Process Building)	Corrective Action Needed - See Comments	Replaced belts. Greased fittings. Fan operating normally.	05/05/2023	ICM
2237	Lewes Turbidimeters	Daily Turbidity Meter PM	All probes wiped daily.	05/05/2023	PM
2235	Howard Seymour STP	Weekly Universal Waste Inspection	Inspection complete. No issues noted.	05/09/2023	PM
2296	Overhead Trolley 1	Hoist Inspection - Monthly	Inspection completed. No issues found.	05/09/2023	PM
2297	Overhead Trolley 2	Hoist Inspection - Monthly	Inspection completed. No issues found.	05/09/2023	PM
2298	Hoist	Hoist Inspection - Monthly	Inspection completed. No issues found.	05/09/2023	PM
2299	Overhead Crane Davit Arm Second Floor	Hoist Inspection - Monthly	Inspection completed. No issues found.	05/09/2023	PM
2309	Lewes DO Probes	Weekly DO meter PM	Probes cleaned and calibrated.	05/09/2023	PM
2317	LS #4 Gills Neck Savannah	Change lights for PS to LED	Lights in pump station have been inconsistent. Changed over lights from fluorescent to LED to save energy cost as well as make the lights more dependable.	05/10/2023	PROACTIVE
2318	LS #13 Schley Avenue at the old Power Plant	Electrical repairs	Andy replaced an overload relay at the PS. He also replaced a GFI outlet and cover.	05/10/2023	REACTIVE
2208	Howard Seymour STP	Semi-Annual HVAC PM	Service was completed by Sherman Corp. This service was set up by the BPW.	05/12/2023	PM
2291	Generator, Main Plant	Monthly Generator Inspection	Had low D.C. volt alarm. Made adjustment to correct. All fluids good. Battery and belts good.	05/12/2023	PM

Work Orders Completed in Prior Month

WO No.	Asset Description	Brief Description	Comments	Work Completed Date	WO Type
2292	Generator	Monthly Generator Inspection	All fluids. Good battery and belts.	05/12/2023	PM
2293	Generator	Monthly Generator Inspection	All fluids are good. Belts look to be in good shape.	05/12/2023	PM
2287	Portable Water Pump, Gas	Monthly Rolling Stock PM	PM completed on both Honda and Godwin pumps. No issues reported.	05/15/2023	PM
2295	1 Ton Hoist, Process Building	Hoist Inspection - Monthly	Hoist inspection complete. No issues to report.	05/15/2023	PM
2306	Lewes Turbidimeters	Daily Turbidity Meter PM	All probes wiped daily.	05/15/2023	PM
2247	Howard Seymour STP	Monthly Machinery and Equipment Inspection	Inspection completed. New ladder is needed for dumpster. Cable for hoist in headworks building is fraying and should look at being replaced.	05/16/2023	PM
2253	Howard Seymour STP	Weekly Universal Waste Inspection	Weekly inspection completed. No issues to report.	05/16/2023	PM
2313	Lewes DO Probes	Weekly DO meter PM	Meters cleaned and calibrated.	05/16/2023	PM
2314	Digester Blower 1	Oil change and filter clean	Oil in blower changed and filter cleaned.	05/16/2023	PROACTIVE
2315	Digester Blower 2	Oil change and filter clean	Oil in blower changed and filter cleaned.	05/16/2023	PROACTIVE
2316	Membrane Digester Blower	Oil change and filter clean	Oil in blower changed and filter cleaned.	05/16/2023	PROACTIVE
2252	Howard Seymour STP	Monthly SPCC Inspection	Inspection completed. No issues reported.	05/17/2023	PM
2285	Pressure Washer	Monthly Rolling Stock PM	PM completed. Pump oil added.	05/17/2023	PM
2286	Gehl Skid Steer	Monthly Rolling Stock PM	PM completed. Greased all fittings.	05/17/2023	PM
2288	Ford F350 Crane Truck	Monthly Rolling Stock PM	PM completed. No issues reported.	05/17/2023	PM
2289	Snowblower	Monthly Rolling Stock PM	PM completed. No issues reported.	05/17/2023	PM
2245	Howard Seymour STP	Monthly Electrical System Inspection	Inspection completed. No issues reported.	05/19/2023	PM
2246	Howard Seymour STP	Monthly Material Handling and Storage Inspection	Inspection completed. No issues reported.	05/22/2023	PM
2249	Howard Seymour STP	Monthly Protective and Emergency Equipment Inspection	Inspection completed. New face shields and chemical gloves on order as inspection noted that they needed to be replaced.	05/22/2023	PM
2308	Howard Seymour STP	Weekly Universal Waste Inspection	Weekly inspection completed. No problems found.	05/22/2023	PM
2310	Lewes Turbidimeters	Daily Turbidity Meter PM	All probes wiped daily.	05/22/2023	PM
2242	Howard Seymour STP	Monthly General Safety Inspection	Inspection completed. No issues to report.	05/23/2023	PM
2243	Howard Seymour STP	Monthly Housekeeping Inspection	Inspection completed. New clamps & screws needed on the trains.	05/23/2023	PM
2244	Howard Seymour STP	Monthly Fire Prevention and Emerg Action Inspctn	Inspection completed. All extinguishers good.	05/23/2023	PM
2250	Howard Seymour STP	Monthly Chemical Processing and Storage Inspection	Inspection complete. 50% caustic line needs replaced/repared. 25% caustic containment in need of repair. New firehose sections needed (2 on order).	05/23/2023	PM

Work Orders Completed in Prior Month

WO No.	Asset Description	Brief Description	Comments	Work Completed Date	WO Type
2251	Howard Seymour STP	Monthly Universal Waste Inspection	Inspection completed. No issues reported.	05/23/2023	PM
2254	LS #1 U of D	Pump Station Monthly Inspection	Not secure needs 2 locks. Pumps operating. FOG 3/10.	05/23/2023	PM
2255	LS #2 Pilottown Rodney Ave	Pump Station Monthly Inspection	Pumps run. FOG 3/10.	05/23/2023	PM
2258	LS #5 California Ave	Pump Station Monthly Inspection	Wet well doors have no safety stops, no handle on one side. Floats good. Pumps operating. Medium FOG.	05/23/2023	PM
2259	LS #6 Connecticut Ave	Pump Station Monthly Inspection	No locks. Door to wet well needs repaired. Floats good. Light FOG.	05/23/2023	PM
2260	LS #7 Cape Henlopen Dr Pilot Point	Pump Station Monthly Inspection	Outside light needs to be fixed. Wood gate broken. Pumps run. FOG 6/10	05/23/2023	PM
2264	LS #11 Hoornkill Avenue	Pump Station Monthly Inspection	Wet well vault door unsafe, no hinges or locks. Pumps operating. FOG 9/10.	05/23/2023	PM
2267	LS #14 Harborview Road	Pump Station Monthly Inspection	Weeds need to be addressed around wet well. Pumps operating. FOG 9/10.	05/23/2023	PM
2268	LS #15 Cape Henlopen Dr Port Lewes	Pump Station Monthly Inspection	Water bib does not work. Area needs to be cleaned up. Needs new 8x8 PVC cover. Pumps both run. Floats good. FOG 4/10.	05/23/2023	PM
2273	LS #19 Pilottown Village Ocean Blvd	Pump Station Monthly Inspection	No locks. Gate to wooden fence broke and in need of repair. Overgrown vegetation. Pumps operating. No FOG.	05/23/2023	PM
2282	LS #33 DNREC Station	Pump Station Monthly Inspection	Not secure needs 2 locks. Pumps running. FOG 4/10	05/23/2023	PM
2283	LS #74 Cape Shores	Pump Station Monthly Inspection	Water bib does not work. Generator not functional. Area around PS needs maintenance. Floats good. FOG 4/10. Both pumps good.	05/23/2023	PM
2284	LS #83	Pump Station Monthly Inspection	Lights not working at PS. Both pumps running but sound loud, may need maintenance. Generator not functioning. Electrical cabinet does not close completely. Basket needs lifted and cleaned. FOG 6/10.	05/23/2023	PM
2303	Tower Hill	Pump Station Monthly Inspection	No issues found.	05/23/2023	PM
2256	LS #3 Pilottown Marina	Pump Station Monthly Inspection	Outside light needs repaired. Pipes coming in need sealed. Station needs cleaned. Need 100' hose incase of pump priming need.	05/24/2023	PM
2262	LS #9 Sussex Drive	Pump Station Monthly Inspection	Floats good. Pumps operating normally. Medium FOG.	05/24/2023	PM
2265	LS #12 Market Street Devon Inn	Pump Station Monthly Inspection	Heavy FOG 10/10. Could not see floats due to FOG. Need new manhole catch basin.	05/24/2023	PM
2270	LS #17 Savannah Road Huling Cove	Pump Station Monthly Inspection	Heavy FOG 10/10. Pumps operating normally.	05/24/2023	PM
2271	LS #17B	Pump Station Monthly Inspection	Heavy FOG 10/10. Pumps operating normally.	05/24/2023	PM
2257	LS #4 Gills Neck Savannah	Pump Station Monthly Inspection	Pump station checked daily.	05/25/2023	PM

Work Orders Completed in Prior Month

WO No.	Asset Description	Brief Description	Comments	Work Completed Date	WO Type
2261	LS #8, American Legion	Pump Station Monthly Inspection	Pump station checked daily.	05/25/2023	PM
2263	LS #10 Reserves	Pump Station Monthly Inspection	Needs lock. Gate door needs repaired. Pumps operating normally. Floats cleaned. Light FOG.	05/25/2023	PM
2266	LS #13 Schley Avenue at the old Power Plant	Pump Station Monthly Inspection	Light FOG. Pumps operating normally. Floats clear.	05/25/2023	PM
2269	LS #16 Henlopen Gardens	Pump Station Monthly Inspection	Outlet not working. Needs outside light. FOG 10/10. Pump 1 not operational. In process of getting materials to replace floats with transducer and replace wiring in PS.	05/25/2023	PM
2272	LS #18 Drake Knoll	Pump Station Monthly Inspection	FOG Heavy. Float tree needs to be pulled and cleaned. Pumps operating normally. Spider infestation needs to be addressed.	05/25/2023	PM
2274	LS #20 Monroe Ave	Pump Station Monthly Inspection	All normal. No issues.	05/25/2023	PM
2275	LS #21 Monroe Ave	Pump Station Monthly Inspection	All normal. No issues.	05/25/2023	PM
2276	LS #22 Monroe Ave	Pump Station Monthly Inspection	All normal. No issues.	05/25/2023	PM
2277	LS #23 Monroe Ave	Pump Station Monthly Inspection	All normal. No issues.	05/25/2023	PM
2278	LS #25 Monroe Ave	Pump Station Monthly Inspection	All normal. No issues.	05/25/2023	PM
2279	LS #29 Washington Street	Pump Station Monthly Inspection	All normal. No issues.	05/25/2023	PM
2280	LS #30 Washington Street	Pump Station Monthly Inspection	All normal. No issues.	05/25/2023	PM
2294	5 Ton Hoist, Process Building	Hoist Inspection - Monthly	Inspection completed. Hoist functioning properly. No issues reported.	05/25/2023	PM
2302	Blowers	Monthly Blower Inspection / PM	All blowers inspected.	05/25/2023	PM
2307	Blowers	Weekly Oil Check	All blower oil levels checked daily.	05/25/2023	PM
2311	Blowers	Weekly Oil Check	All blower oil levels checked daily.	05/25/2023	PM
2319	Lewes Turbidimeters	Daily Turbidity Meter PM	All meters wiped daily.	05/25/2023	PM
2322	Lewes DO Probes	Weekly DO meter PM	Probes cleaned and calibrated.	05/25/2023	PM
2290	Edge Loader Brush	Monthly Rolling Stock PM	PM completed. No issues reported.	05/30/2023	PM
2304	Lewes Exhaust Fans	Monthly Exhaust Fan Inspection	Inspection completed. No issues reported.	05/30/2023	PM
2312	Howard Seymour STP	Weekly Universal Waste Inspection	Universal waste check completed. No issues to report.	05/30/2023	PM
2320	Blowers	Weekly Oil Check	All blowers checked. No issues reported.	05/30/2023	PM
2248	Howard Seymour STP	Monthly Training and Recordkeeping Inspection	All employee training up to date. All safety meetings held.	05/31/2023	PM
2281	LS #32 Canary Creek	Pump Station Monthly Inspection	Medium FOG. 2 GFI's need replaced.	05/31/2023	PM
2337	Lewes DO Probes	Weekly DO meter PM	Probes calibrated. Slopes recorded in comments.	05/31/2023	PM

Printed 88 items

# PUMP STATION 196

MAY 23		PS 196	
		METER READING	24 HOUR FLOW
MON	1	23305320	0.139770
TUE	2	23445090	0.134160
WED	3	23579250	0.132910
THU	4	23712160	0.127230
FRI	5	23839390	0.130130
SAT	6	23969520	0.131020
SUN	7	24100540	0.141090
MON	8	24241630	0.131900
TUE	9	24373530	0.033880
WED	10	24407410	
THU	11	24407410	
FRI	12	24407410	
SAT	13	24407410	
SUN	14	24407410	
MON	15	24407410	0.312390
TUE	16	24719800	0.413780
WED	17	25133580	0.404440
THU	18	25538020	0.439170
FRI	19	25977190	0.423820
SAT	20	26401010	0.438890
SUN	21	26839900	0.441530
MON	22	27281430	0.294500
TUE	23	27575930	0.129970
WED	24	27705900	0.130210
THU	25	27836110	0.137670
FRI	26	27973780	0.175860
SAT	27	28149640	0.185250
SUN	28	28334890	0.188900
MON	29	28523790	0.211810
TUE	30	28735600	0.158980
WED	31	28894580	0.143810
		29038390	
TOTAL			5.733070
COUNT			26
AVERAGE			0.220503
MINIMUM			0.033880
MAXIMUM			0.441530



# Lewes BPW WWTP InSight Report

29-May-23 to 12-Jun-23

From: ES - Erin Horocholyn - Veolia WTS  
 To: Austin Calaman BPW, Michael Wolgemuth Inframark  
 cc: Shawn Addison, Al Farrell, Matthew Stapleford - Veolia Water Technologies & Solutions

## System Equipment

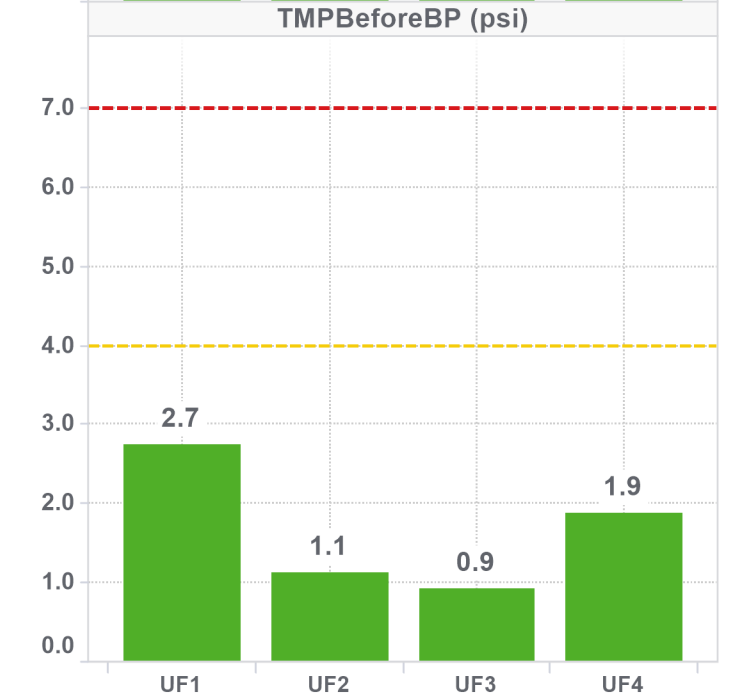
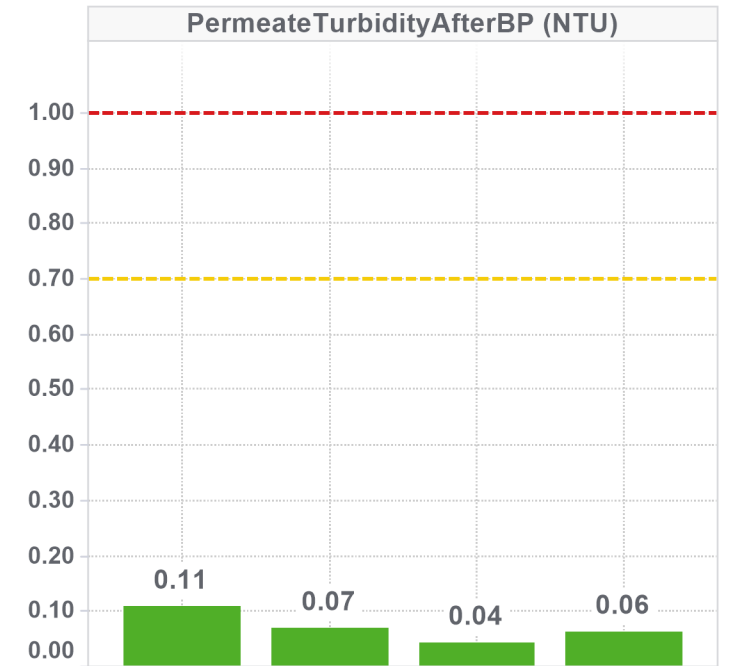
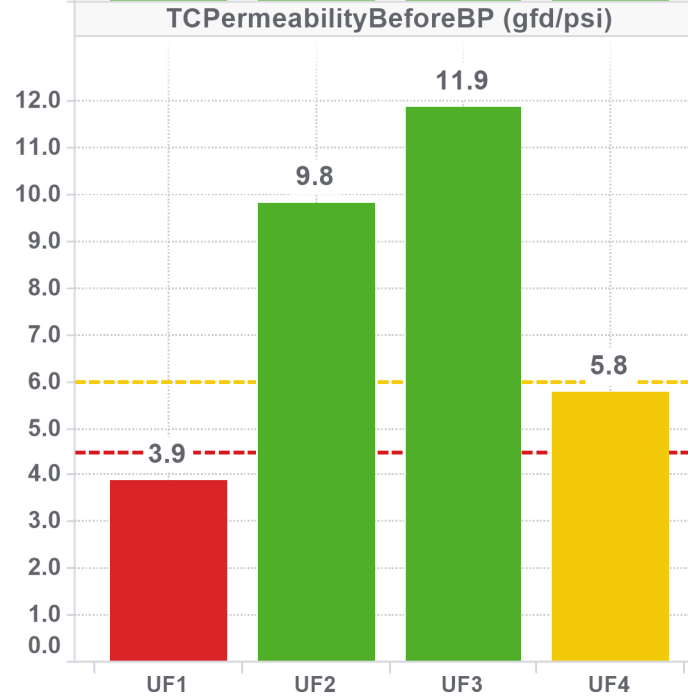
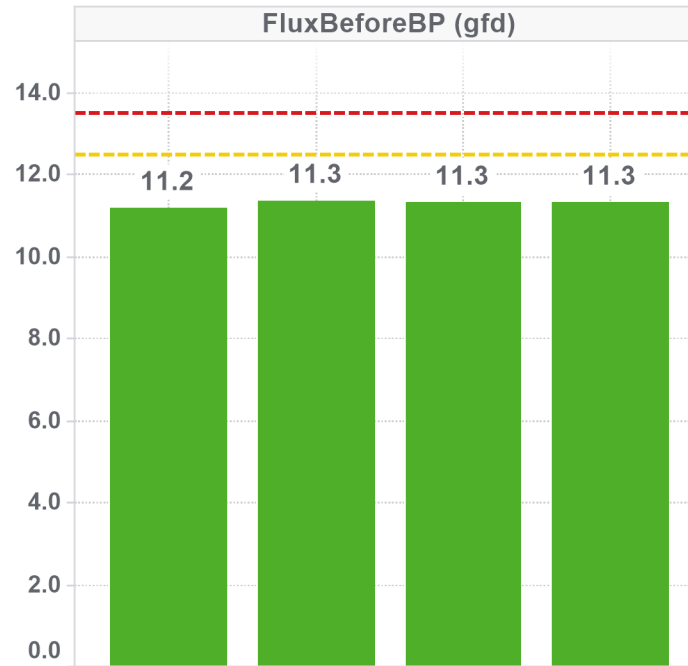
4 x ZW 500D UF trains, 4 cassettes per train, 120 modules x 370 sq. ft. per train (44,400 sq. ft. per train)  
 UF3 & UF4 membranes replaced 2020 Q1  
 Net Capacity: 1.50 MGD (avg. daily flow), 2.25 MGD (peak daily flow)

## Cleaning Strategy

Maintenance Cleans:  
 2 x 200 ppm Sodium Hypochlorite per week  
 1 x 2000 ppm Citric Acid per week

Recovery Cleans:  
 2 x 2000 ppm dose/1000 ppm soak Sodium Hypochlorite per year  
 1 x 2000 ppm Citric Acid per year

## KPI Dashboard - Avg Values Through Reporting Period





## Report Highlights

### Membrane Performance:

- Trains UF2 and UF3 are performing well with high permeabilities and low TMP
- UF4's permeability increased from ~4.5 gfd/psi to ~6 gfd/psi over June 2 - 3 when two sequential maintenance cleans (MCs) were run on this train. Keeping up the MCs is helping to support this train's performance
- Turbidity was low and <0.1 NTU on trains UF1, UF2, and UF3 100% of the time. UF4's turbidity was <0.1 NTU 98.7% of the time due to a few higher values between June 1 - 2

### Cleans:

- Maintenance cleans were run regularly on all trains including UF4

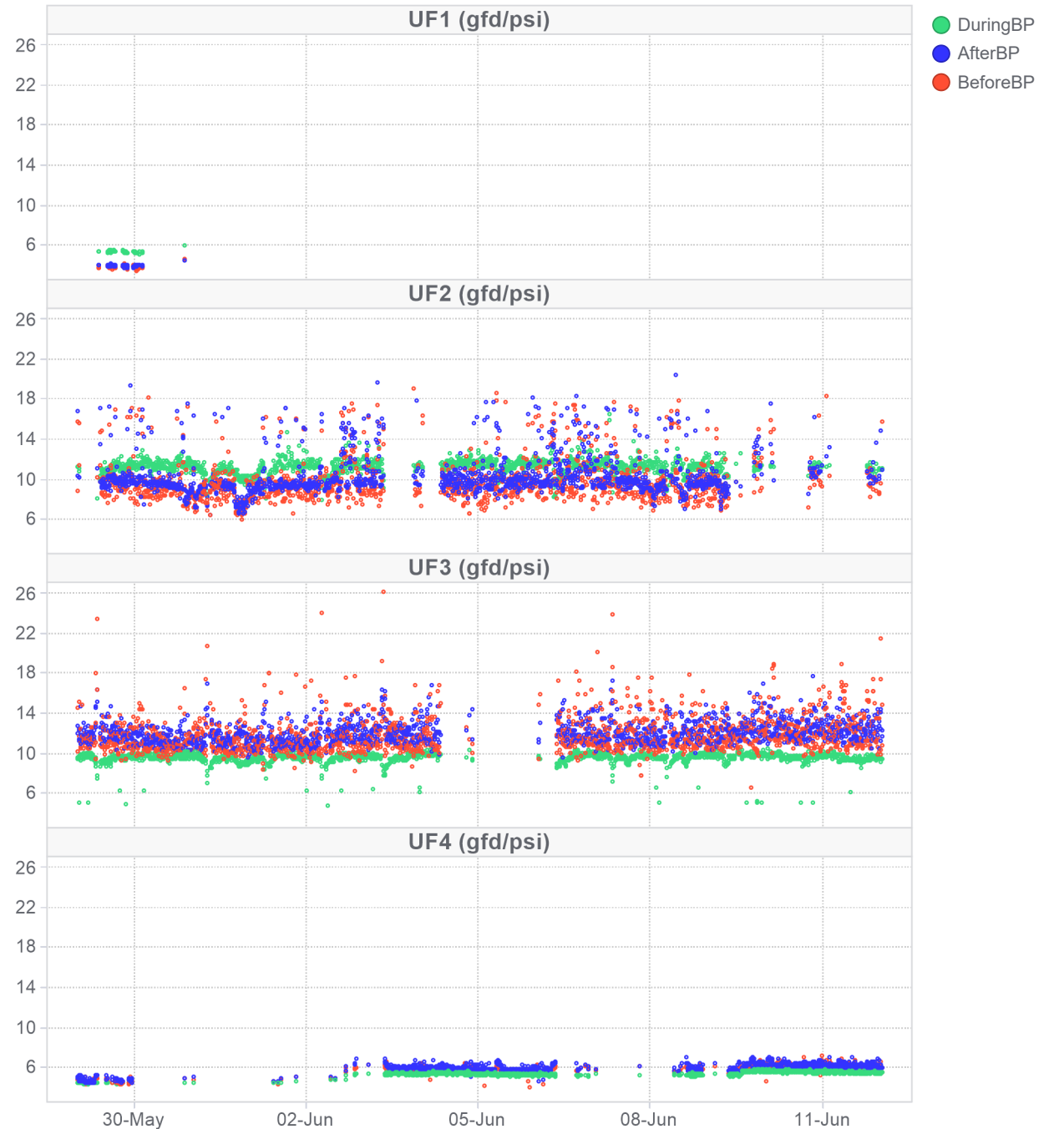
### Plant Updates:

- UF1 was offline starting May 31
- UF2, UF3, and UF4 were in Standby intermittently

## Averages Through Reporting Period

Parameter	Unit		UF1	UF2	UF3	UF4
FluxBeforeBP	gfd	Value	11.16	11.35	11.28	11.28
		Change	-1%	-1%	0%	0%
FluxDuringBP	gfd	Value	18.45	18.32	18.24	18.77
		Change	0%	0%	0%	0%
PermeateTurbidityAfterBP	NTU	Value	0.11	0.07	0.04	0.06
		Change	6%	-2%	-7%	19%
TCPPermeabilityBeforeBP	gfd/psi	Value	3.85	9.82	11.86	5.77
		Change	-3%	1%	1%	12%
TCPPermeabilityDuringBP	gfd/psi	Value	5.42	11.29	9.57	5.38
		Change	-6%	-6%	-4%	9%
TMPBeforeBP	psi	Value	2.73	1.12	0.91	1.86
		Change	1%	-4%	-4%	-16%
TotalPermeateFlowDaily	gal	Value	3,929.15	287,990.38	289,709.08	178,962.62
		Change	-1428%	7%	12%	-57%

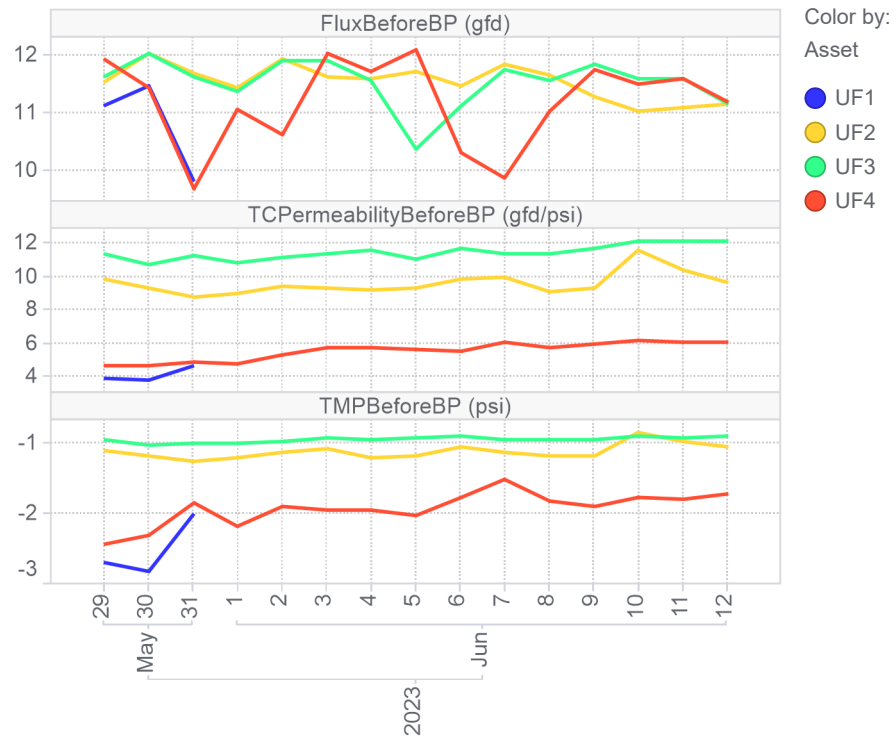
## Temperature Corrected Permeability Trends



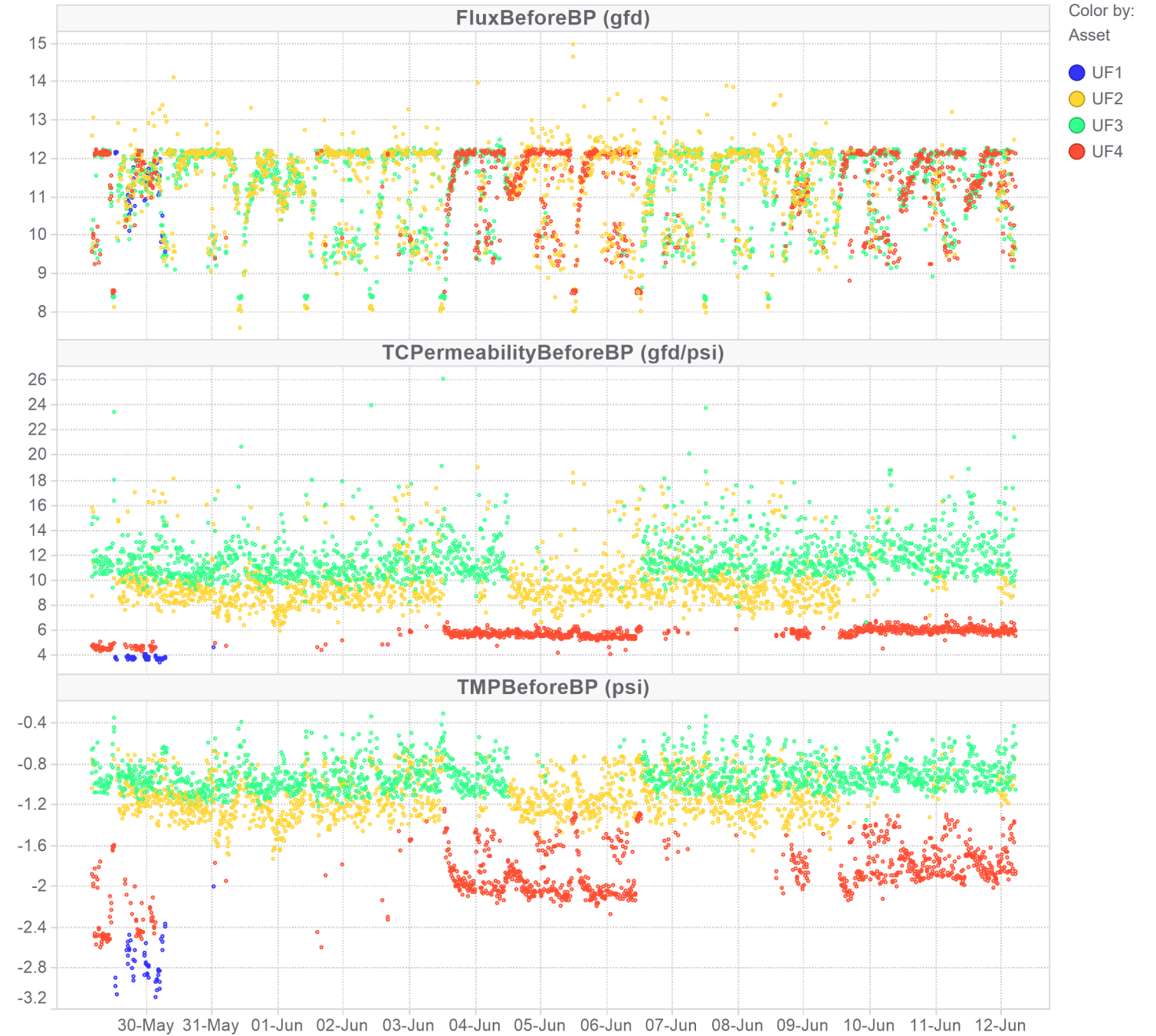
## Comments

- TMP and permeability improved on UF4 after two maintenance cleans run on June 2 and 3
- Permeability trends follow TMP, with lowest performance on UF1
- UF2 and UF3 have excellent TMP and permeability
- Trains saw mostly steady flow rates over this report period, with typical diurnal trends
- Flux/flow rate morning minima decreased over June 9 - 11 though flows remained consistent throughout afternoon and evening hours

## MBR KPI Daily Median Averages



## MBR KPI Raw Trends



## Comments

- Turbidity was low and <0.1 NTU on trains UF1, UF2, and UF3 100% of the time
- UF4 had some higher turbidity values between June 1 - 2, peaking at 1.45 NTU. Trends returned to typical ~0.04 NTU after June 2
- Turbidity trends are low and stable on all trains, excluding UF4 from June 1 - 2

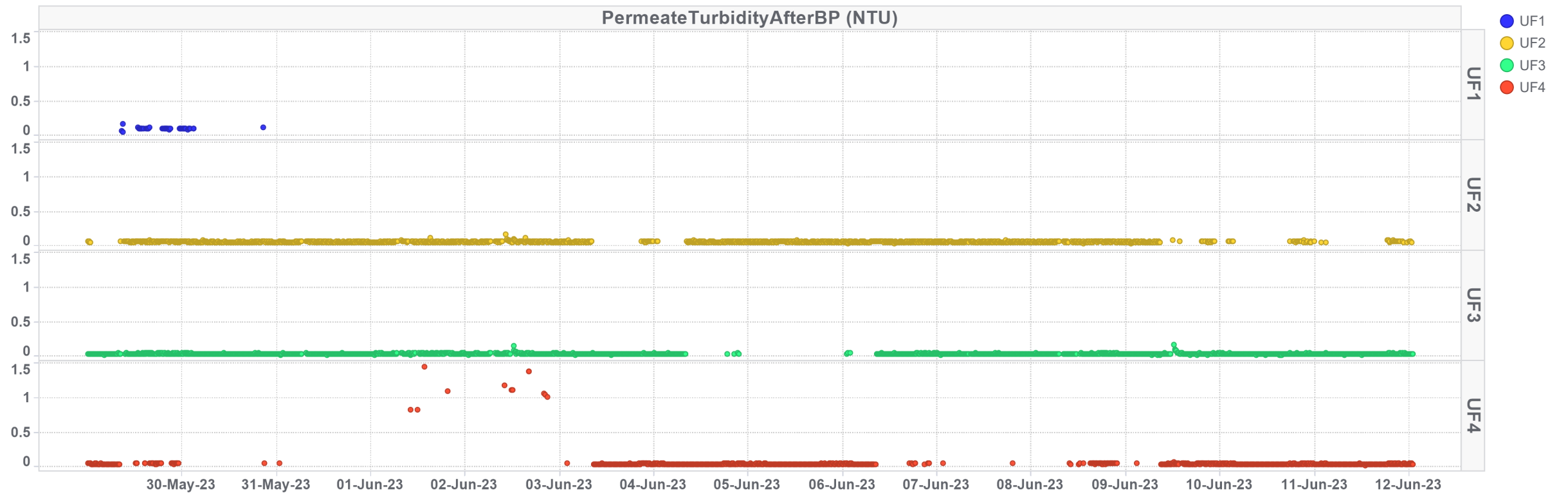
## Permeate Turbidity: % Data Within Range

Parameter	Value Range	UF1	UF2	UF3	UF4
PermeateTurbidityAfterBP	< 0.20 NTU	100.00%	100.00%	100.00%	98.73%
	> 0.50 NTU	-	-	-	1.27%

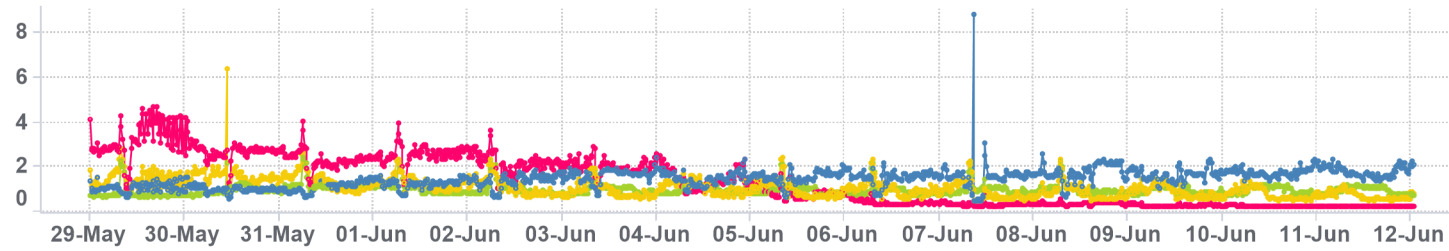
## Permeate Turbidity Distribution

Parameter - Unit	Asset	Average	Min	Max
PermeateTurbidityAfterBP (NTU)	UF1	0.11	0.06	0.18
	UF2	0.07	0.05	0.18
	UF3	0.04	0.03	0.17
	UF4	0.06	0.03	1.45

## Permeate Quality Trends



### Dissolved Oxygen and pH Trends

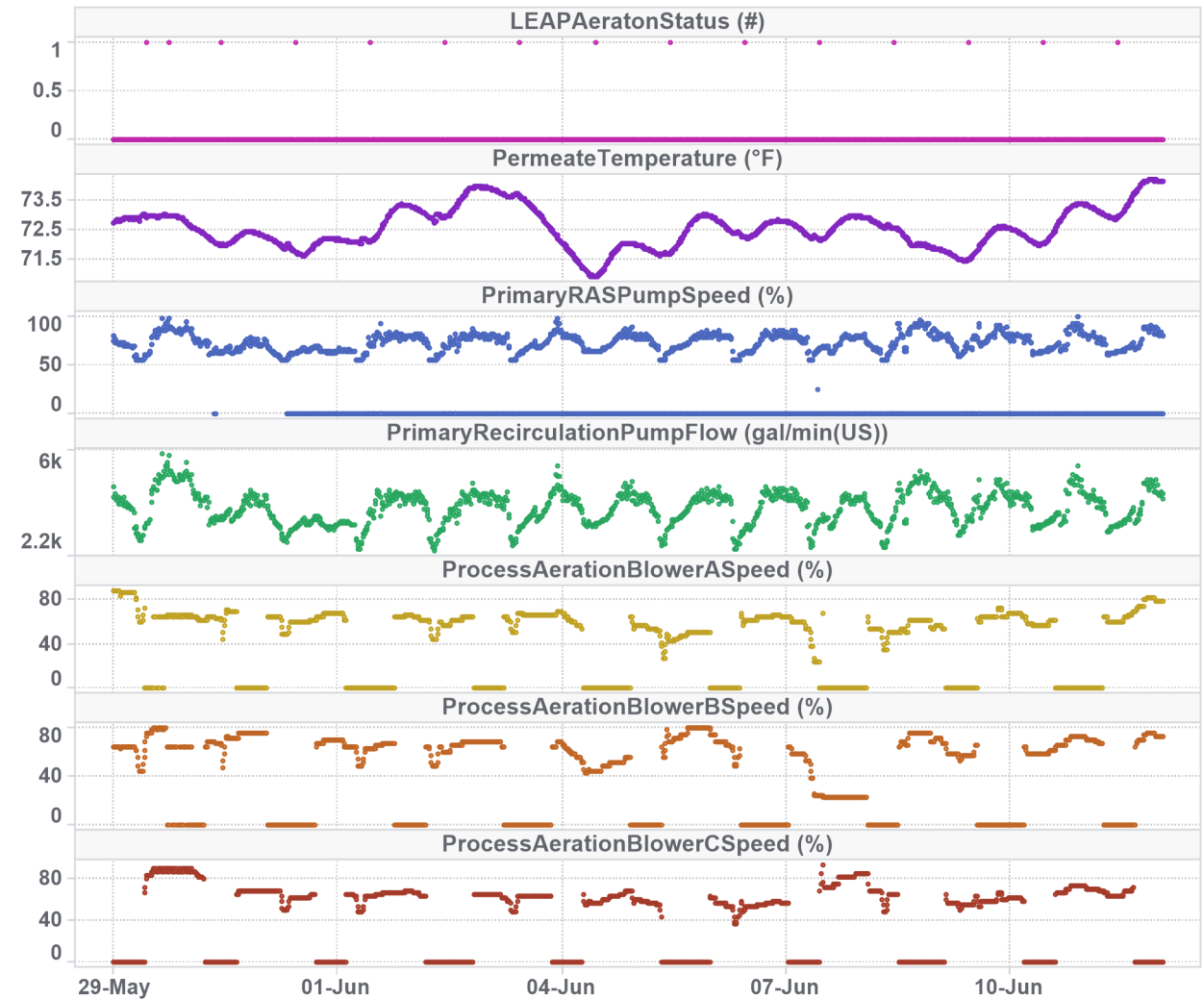


### Dissolved Oxygen Distribution

Parameter - Unit	Average	Min	Max
AerobicZoneTank1DissolvedOxygen (mg/L)	1.39	0.26	4.72
AerobicZoneTank2DissolvedOxygen (mg/L)	1.49	0.51	8.79
PreAnoxicZone1TankDissolvedOxygen (mg/L)	0.99	0.66	2.41
PreAnoxicZone2TankDissolvedOxygen (mg/L)	1.09	0.51	6.37

### Process Control Parameter Distribution

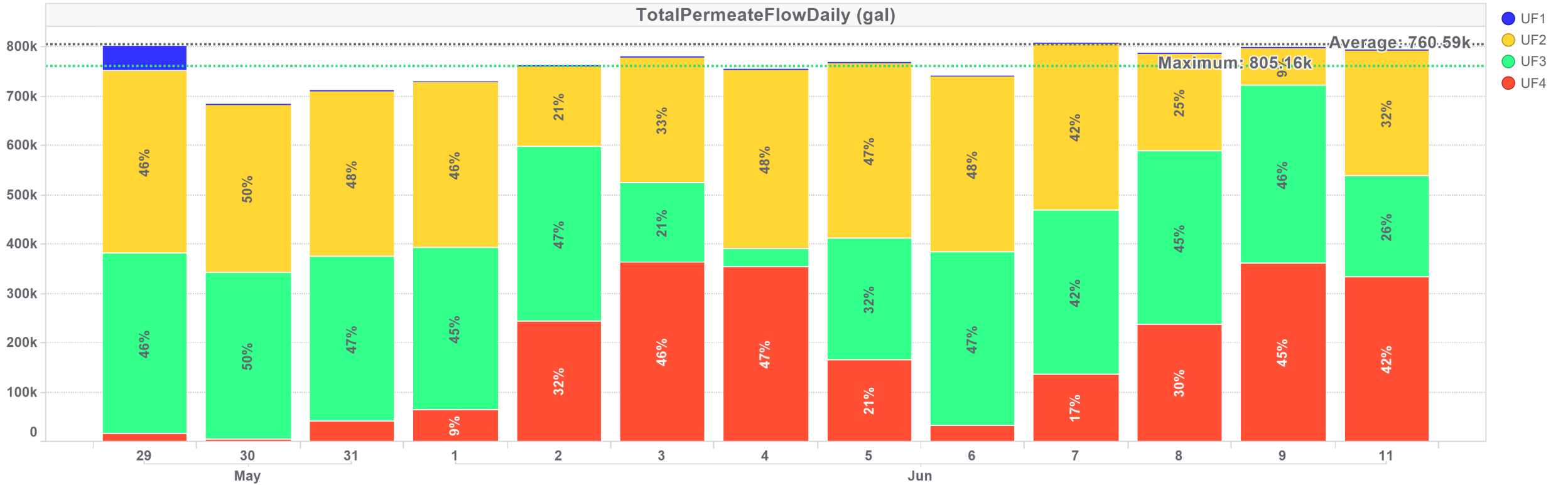
Parameter - Unit	Asset	Average	Min	Max
FeedFlowRate (gal/min(US))	UF1	1972.52	551.00	2779.00
	UF2	645.85	0.00	2809.00
	UF3	683.89	0.00	3382.00
	UF4	948.89	0.00	8930.00
FoamPumpFlow (gal/min(US))	UF Plant	0.01	0.01	0.01
MembraneAerationAirFlow (scfm)	UF Plant	1161.51	0.00	2992.24
PermeateTemperatureAfterBP (°F)	UF1	71.71	70.30	72.99
	UF2	71.51	68.54	74.22
	UF3	71.80	68.79	74.21
	UF4	71.27	68.67	74.22
PrimaryRAS PumpSpeed (%)	UF1	14.60	0.00	99.00
	UF2	75.56	0.00	100.00
	UF3	75.54	0.00	100.00
	UF4	75.90	0.00	100.00
PrimaryRecirculationPumpFlow (gal/min(US))	UF Plant	4061.95	1.07	5855.11
ProcessAerationBlowerASpeed (%)	UF Plant	40.13	0.00	94.00
ProcessAerationBlowerBSpeed (%)	UF Plant	38.97	0.00	92.00
ProcessAerationBlowerCSpeed (%)	UF Plant	38.67	0.00	94.00
TotalWASFlowDaily (gal)	UF Plant	0.00	0.00	0.00
WasteSlugWASFlow (gal/min(US))	UF Plant	8.11	0.03	300.00



### Comments

- Aerobic zone 1's average dissolved oxygen decreased to 0.3 mg/L on June 6
- Process blowers A, B, and C are all online and rotating to share the aeration load

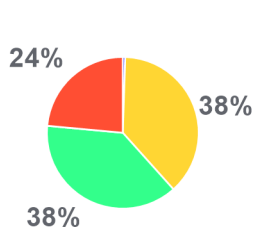
## Production Summary



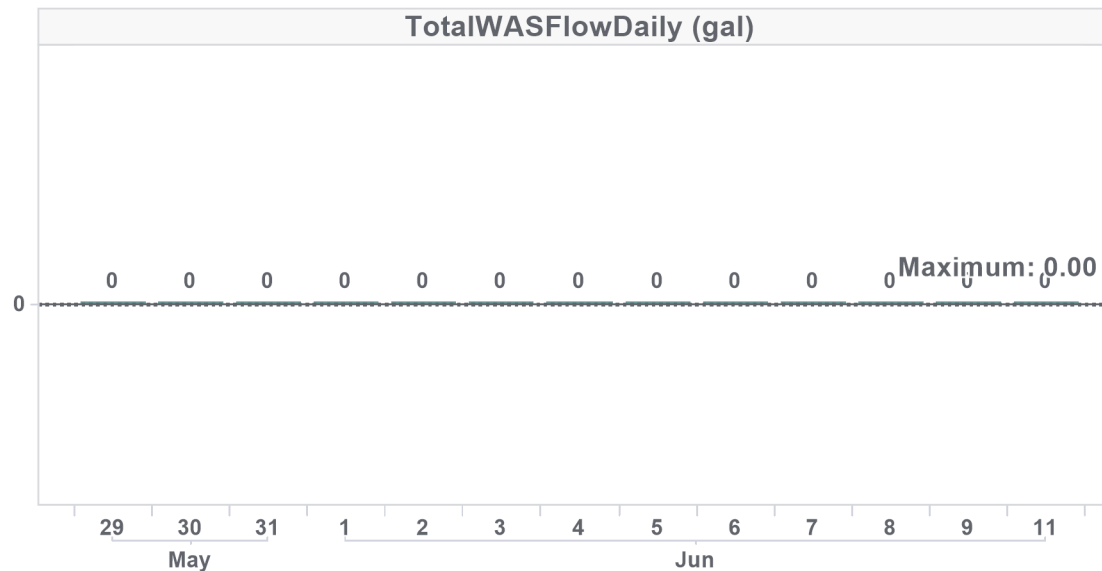
## Flow Division

Asset	Flow Division
UF1	0.5%
UF2	37.9%
UF3	38.1%
UF4	23.5%

- + 5%
- Even Distribution
- -5%



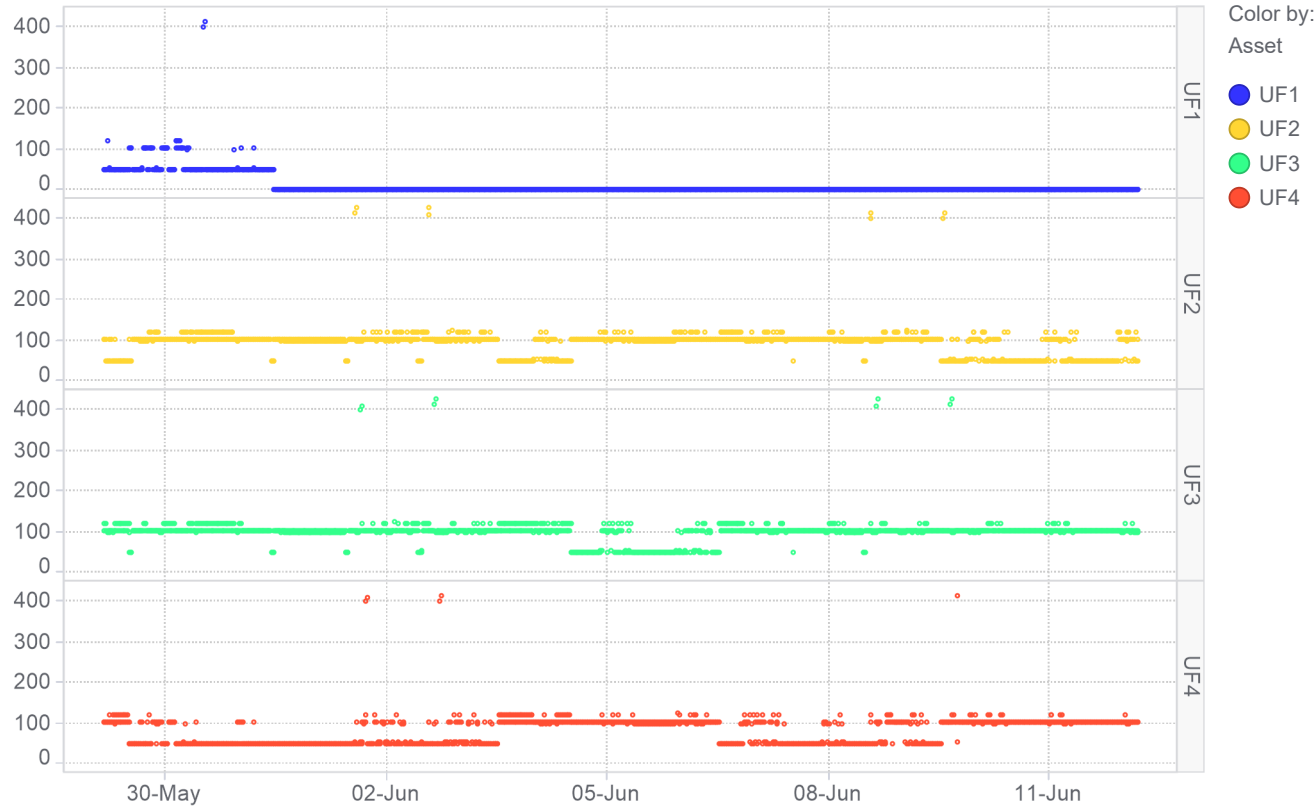
- UF1
- UF2
- UF3
- UF4



## Comments

- Plant production averaged 0.76 MGD, with a maximum on 0.81 MGD on June 7
- Typically flow was evenly split between trains in Production
- UF1 was offline starting May 31. When UF2, UF3, and UF4 were in Standby mode, they contribute less to plant production during these periods as expected
- No sludge was wasted during this report period

### Train Status Plot



### Train Status Comments

- Maintenance cleans (MCs) were run regularly on all trains in production, including UF4
- UF1 went offline starting May 31. UF2, UF3, and UF4 were in Standby intermittently
- UF trains are in LEAP Low most of the time, indicating efficient membrane scouring aeration

#### Train Status Legend:

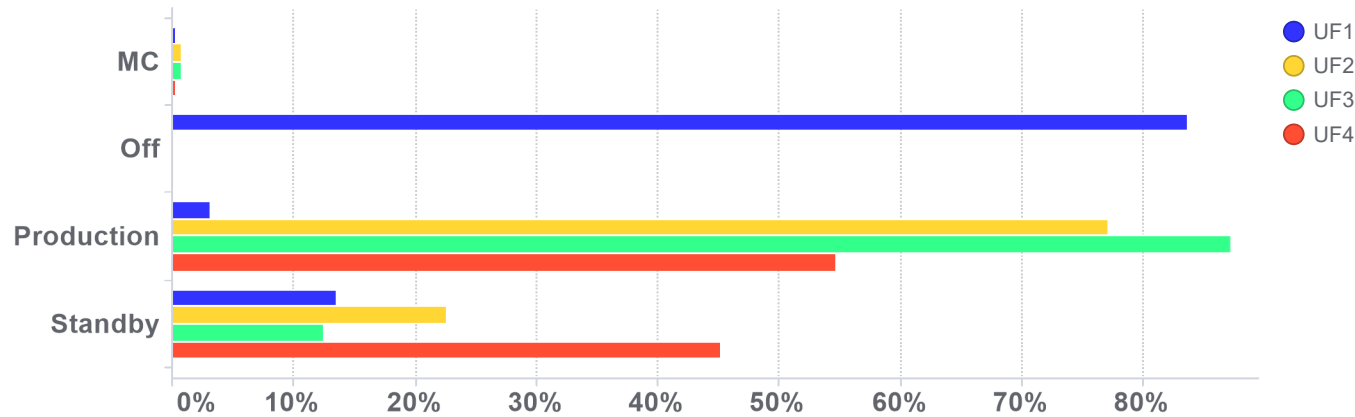
2 = Off, 7 = Shutdown, 52 = Standby, 102 = Production, 400 = Maintenance clean, 500 = Recovery clean

### Train Status Analysis

Mode	UF1	UF2	UF3	UF4
MC	0.15%	0.59%	0.59%	0.37%
Off	83.53%	-	-	-
Production	2.97%	76.93%	87.09%	54.53%
Standby	13.35%	22.48%	12.31%	45.10%

● Max  
○ Min

### Train Status Distribution % Time



### LEAP Aeration Distribution





For InSight technical assistance please email [insight.src@veolia.com](mailto:insight.src@veolia.com) or please call technical support at 1 866 271 5425 or 905 469 7723 and follow the prompts, if you require after hours assistance please contact the 24/7 Emergency number provided in your plant documentation. This email is a summary of issues identified during a manual review of InSight data from the time period above. This review is an analysis of data that is logged by InSight and identifies key plant performance issues determined from this data. This data review was not focused on minor data issues but on identifying possible existing and/or upcoming critical operational issues.

This review was prepared by Veolia Water Technologies & Solutions solely to assist water treatment plant owners and/or operators in analyzing and optimizing plant performance and is not intended to be used or relied upon for regulatory compliance or any other purpose. The content of this review is based in whole or in part on operation data obtained from the plant using InSight software. Veolia Water Technologies & Solutions makes no representations or warranties as to the accuracy of the plant data utilized in the preparation of this review. Veolia Water Technologies & Solutions accepts no liability for consequences or actions taken in whole or in part by any person on the basis of this review or its contents



STATE OF DELAWARE  
DEPARTMENT OF NATURAL RESOURCES AND  
ENVIRONMENTAL CONTROL  
DIVISION OF WATER

RICHARDSON & ROBBINS BUILDING  
89 KINGS HIGHWAY  
DOVER, DELAWARE 19901

RESOURCE PROTECTION SECTION  
ENVIRONMENTAL COMPLIANCE BRANCH

PHONE  
(302) 739-9945

May 18, 2023

Mr. Austin Calaman  
City of Lewes – Board of Public Works  
107 Franklin Ave.  
Lewes, DE 19958

Re: Follow-up Letter  
Compliance Sampling & Inspection (CSI) – April 26, 2023  
NPDES Permit No. DE0021512

Dear Mr. Calaman,

On behalf of the State of Delaware, Resource Protection Section, Compliance & Enforcement Branch, I would first like to thank Mr. Jeffrey Kerin, Mr. Matt Davis, and all of the operating staff for their cooperation and assistance during the Compliance Sampling & Inspection (CSI) completed on April 26, 2023.

Mr. Kerin gave a thorough tour of the wastewater treatment plant and is to be commended on his knowledge of the facility. Overall, the WWTP operations were very good, however there was significant foaming noted throughout the aeration basin. *Please have the Inframark operations team continue to monitor the foaming. Perform an investigation to determine possible causes for the significant foaming and provide it to the Department within sixty (60) days of receipt of this letter.* Housekeeping and best management practices at the plant were excellent. Both the Storm Water Pollution Prevention Plan (SWPPP) and Spill Prevention, Control, and Countermeasures (SPCC) plan were reviewed on site and all inspections and trainings are up to date. The SWPPP and SPCC were signed and dated January 29, 2023.

The February 2023 DMR was reviewed, and all entries were as reported by analytical (both in-house and contract labs), and all calculations were correct with a few exceptions. The raw influent Total Suspended Solids was reported as 184 mg/L but the actual result is 194 mg/L. Mr. Kerin also informed the inspection team that they recently began reporting the data from a hand held dissolved oxygen meter on their DMR. The NPDES permit requires the facility to use the dissolved oxygen meter which records data 24 hours per day. *The Inframark operations team has revised the incorrect data as of May 18, 2023. Please calibrate the continuous recorder. Once this is complete, please*

*submit the calibration documentation to the Department (email submittal is acceptable).* Otherwise, data handling and traceability were satisfactory, and all data and reports requested were produced in a timely manner. All calibration documentation was produced and up to date. Laboratory records, reagents, instrumentation, and methods were in compliance with NPDES requirements.

I would like to again thank the operating personnel at the Lewes HSWRP for their cooperation and participation in this Compliance Sampling & Inspection program to help ensure the quality of NPDES effluent waters and the self-reporting data. If you have any questions, please contact me at 302-739-9945.

Sincerely,



Jena Saxton  
Environmental Scientist  
Compliance & Enforcement Branch  
Resource Protection Section  
Division of Water  
State of Delaware – DNREC

ecopy: Mr. Jeffery Kerin – Inframark