

January 2008

ND = No Discharge

City of Logan
Monthly Operational Report
WASTEWATER TREATMENT FACILITY

February **2008**

Name		Title																				Month		Year	
Date	Lagoons - Hdworks		Wetlands - 002		Chlorine		Depth of Water in Cells (ft)							Analytical Results - Wetlands - 002											
	Rate (MGD)	TEMP (°F)	Rate (MGD)	TEMP (°F)	Residual		A1	A2	B1	B2	C	D	E	BOD ₅ Eff (mg/L)	TSS Eff (mg/L)	pH Eff	Copper Eff (ug/L)	Lead Eff (ug/L)	DO (mg/L)	NH ₃ Inf (mg/L)	NH ₃ Eff (mg/L)	Total P (mg/L)	O & G Eff (mg/L)		E-Coli
					mg/L	Time																			Eff No./100 mL
1	9.7	0.0	1.0	0.0	0.00	0:00	6.0	6.0	6.7	6.7	5.9	6.9	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0
2	9.5	0.0	0.3	0.0	0.00	0:00	6.0	6.0	6.7	6.7	5.9	6.9	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0
3	9.3	0.0	0.4	0.0	0.00	0:00	6.0	6.0	6.7	6.7	5.9	6.9	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0
4	9.8	0.0	0.0	0.0	0.00	0:00	6.0	6.0	6.7	6.7	5.9	6.9	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0
5	9.6	0.0	0.0	0.0	0.00	0:00	6.0	6.0	6.7	6.7	5.9	6.9	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0
6	10.0	0.0	0.0	0.0	0.00	0:00	6.0	6.0	6.7	6.7	5.9	6.9	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0
7	10.1	0.0	0.0	0.0	0.00	0:00	6.0	6.0	6.7	6.7	5.9	6.9	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0
8	9.8	0.0	0.0	0.0	0.00	0:00	6.0	6.0	6.7	6.7	5.9	6.9	5.9	8.0	10.0	0.0	0.0	0.0	0.0	0.0	11.3	5.3	5.0		0
9	9.9	0.0	0.0	0.0	0.00	0:00	6.0	6.0	6.7	6.7	5.9	6.9	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0
10	9.5	0.0	0.0	0.0	0.00	0:00	6.0	6.0	6.7	6.7	5.9	6.9	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0
11	10.7	0.0	0.6	0.0	0.00	0:00	6.0	6.0	6.7	6.7	5.9	6.9	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0
12	11.0	0.0	11.1	0.0	0.00	0:00	6.0	6.0	6.7	6.7	5.9	6.9	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0
13	11.2	0.0	11.9	0.0	0.00	0:00	6.0	6.0	6.7	6.7	5.9	6.9	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0
14	11.0	0.0	9.1	0.0	0.00	0:00	6.0	6.0	6.7	6.7	5.9	6.9	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0
15	10.5	0.0	7.8	0.0	0.00	0:00	6.0	6.0	6.7	6.7	5.9	6.9	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0
16	10.3	0.0	1.8	0.0	0.00	0:00	6.0	6.0	6.7	6.7	5.9	6.9	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0
17	9.6	0.0	0.7	0.0	0.00	0:00	6.0	6.0	6.7	6.7	5.9	6.9	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0
18	10.2	0.0	0.5	0.0	0.00	0:00	6.0	6.0	6.7	6.7	5.9	6.9	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0
19	10.4	0.0	0.6	0.0	0.00	0:00	6.0	6.0	6.7	6.7	5.9	6.9	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0
20	10.2	0.0	0.4	0.0	0.00	0:00	6.0	6.0	6.7	6.7	5.9	6.9	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0
21	10.2	0.0	0.4	0.0	0.00	0:00	6.0	6.0	6.7	6.7	5.9	6.9	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0
22	10.2	0.0	0.0	0.0	0.00	0:00	6.0	6.0	6.7	6.7	5.9	6.9	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0
23	10.1	0.0	0.0	0.0	0.00	0:00	6.0	6.0	6.7	6.7	5.9	6.9	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0
24	10.8	0.0	0.0	0.0	0.00	0:00	6.0	6.0	6.7	6.7	5.9	6.9	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0
25	12.0	0.0	0.0	0.0	0.00	0:00	6.0	6.0	6.7	6.7	5.9	6.9	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0
26	12.4	0.0	0.0	0.0	0.00	0:00	6.0	6.0	6.7	6.7	5.9	6.9	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0
27	12.5	0.0	0.7	0.0	0.00	0:00	6.0	6.0	6.7	6.7	5.9	6.9	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0
28	12.6	0.0	1.8	0.0	0.00	0:00	6.0	6.0	6.7	6.7	5.9	6.9	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0
29	12.7	0.0	2.3	0.0	0.00	0:00	6.0	6.0	6.7	6.7	5.9	6.9	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0
30							6.0	6.0	6.7	6.7	5.9	6.9	5.9												
31							6.0	6.0	6.7	6.7	5.9	6.9	5.9												
Ave	10.5	0.0	1.8	0.0	0.00		6.0	6.0	6.7	6.7	5.9	6.9	5.9	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.4	0.2	0.2	30 D GM	
Max	12.7	0.0	11.9	0.0	0.00		6.0	6.0	6.7	6.7	5.9	6.9	5.9	8.0	10.0	0.0	0.0	0.0	0.0	0.0	11.3	5.3	5.0	7 D GM Max	
Min	9.3	0.0	0.0	0.0	0.00		6.0	6.0	6.7	6.7	5.9	6.9	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		

ND = No Discharge

March 2008

ND = No Discharge

City of Logan
Monthly Operational Report
WASTEWATER TREATMENT FACILITY

April **2008**

Name		Title												Month								Year			
Date	Lagoons - Hdworks		Wetlands - 002		Chlorine		Depth of Water in Cells (ft)							Analytical Results - Wetlands - 002											
	Influent		Effluent																						
	Rate (MGD)	TEMP (°F)	Rate (MGD)	TEMP (°F)	Residual		A1	A2	B1	B2	C	D	E	BOD ₅ Eff (mg/L)	TSS Eff (mg/L)	pH Eff	Copper Eff (ug/L)	Lead Eff (ug/L)	DO (mg/L)	NH ₃ Inf (mg/L)	NH ₃ Eff (mg/L)	Total P (mg/L)	O & G Eff (mg/L)		E-Coli Eff No./100 mL
					mg/L	Time																			
1	11.4	54.5	20.6	46.3	0.01	17:54	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			10.0		9.8				
2	13.1	55.1	19.2	44.7	0.01	14:32	6.0	6.0	6.7	6.7	5.9	6.9	5.9	8.0	15.0	7.8	4.0	0.5	12.2	15.0		4.8	5.0		1,10
3	11.0	55.3	16.8	44.5	0.01	13:37	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.9			9.3						
4	10.8	55.1	14.8	49.6	0.00	15:48	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.5			17.1						
5	10.5	53.6	19.4	41.7	0.01	9:36	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			5.4						
6	9.9	53.2	15.4	48.5	0.01	12:33	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.0			11.2						
7	10.6	55.5	14.4	48.0	0.01	13:45	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.1			12.3						
8	10.3	54.7	15.1	42.7	0.01	18:00	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.0			10.3						
9	10.3	54.2	16.2	55.5	0.01	9:26	6.0	6.0	6.7	6.7	5.9	6.9	5.9	15.0	23.0	7.9			8.5	13.0	8.1	4.6			1,3
10	10.0	54.7	18.2	47.5	0.01	17:40	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.6			12.0						
11	9.1	54.3	18.3	49.0	0.01	14:54	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.7			16.7						
12	9.5	55.0	17.0	57.7	0.01	16:55	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.3			21.4						
13	9.3	55.8	19.1	51.3	0.01	19:24	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.1			9.6						
14	10.1	55.4	20.6	57.7	0.00	14:58	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			6.7						
15	10.4	55.1	17.8	51.0	0.01	15:59	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.7			10.7		5.7				
16	10.1	56.1	17.1	58.8	0.01	10:24	6.0	6.0	6.7	6.7	5.9	6.9	5.9	9.0	19.0	8.2			8.3	10.7		4.6			15,17
17	9.8	56.0	17.0	51.8	0.01	15:21	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.7			10.8						
18	9.8	56.1	17.4	52.6	0.01	10:18	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			5.4						
19	9.8	56.0	17.6	52.1	0.01	17:47	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			8.9						
20	9.6	54.5	17.1	47.5	0.01	19:34	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			9.9						
21	10.0	55.8	16.6	52.2	0.01	17:34	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.6			8.0						
22	9.8	56.0	16.3	50.4	0.01	17:05	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.9			9.0						
23	10.0	56.3	16.5	59.7	0.01	11:41	6.0	6.0	6.7	6.7	5.9	6.9	5.9	5.0	11.0	7.8			8.3	10.1	7.5	4.5			1,5
24	11.1	56.7	16.5	53.0	0.01	11:29	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			6.6						
25	10.6	55.8	16.3	50.3	0.01	17:11	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.9			7.6						
26	10.5	55.4	16.0	49.0	0.01	22:28	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			9.5						
27	9.8	55.4	16.1	60.7	0.01	17:54	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.9			8.3						
28	10.4	58.9	16.1	69.7	0.01	14:32	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.9			7.8						
29	10.4	57.1	16.2	61.0	0.00	9:12	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			8.1						
30	10.2	56.7	16.2	56.7	0.01	10:16	6.0	6.0	6.7	6.7	5.9	6.9	5.9	9.0	5.0	7.6			9.0	9.6	7.3	4.4			32,19
31																									
Ave	10.3	55.5	17.1	52.0	0.01		6.0	6.0	6.7	6.7	5.9	6.9	5.9	9.2	14.6	8.0	4.0	0.5	10.0	11.7	7.7	4.6	5.0	30 D GM	5
Max	13.1	58.9	20.6	69.7	0.01		6.0	6.0	6.7	6.7	5.9	6.9	5.9	15.0	23.0	8.7	4.0	0.5	21.4	15.0	9.8	4.8	5.0	7 D GM Max	16
Min	9.1	53.2	14.4	41.7	0.00		6.0	6.0	6.7	6.7	5.9	6.9	5.9	5.0	5.0	7.6	4.0	0.5	5.4	9.6	5.7	4.4	5.0		

ND = No Discharge

May 2008

Month Year

City of Logan
Monthly Operational Report
WASTEWATER TREATMENT FACILITY

June 2008
Month Year

Name	Title																Month	Year															
Date	Lagoons - Hdworks		Lagoons - Eff		Wetlands - 002		Depth of Water in Cells (ft)							Analytical Results - Wetlands - 002								001A				001B							
	Influent		001A	001B	Effluent																	001A				001B							
	Rate (MGD)	TEMP (°F)	Rate (MGD)	Rate (MGD)	Rate (MGD)	TEMP (°F)	A1	A2	B1	B2	C	D	E	BOD ₅ (mg/L)	TSS (mg/L)	pH	Copper (ug/L)	Lead (ug/L)	DO (mg/L)	NH ₃ (mg/L)	Total P (mg/L)	O & G (mg/L)	BOD ₅ (mg/L)	TSS (mg/L)	pH	E-Coli Eff No./100 mL	BOD ₅ (mg/L)	TSS (mg/L)	pH	E-Coli Eff No./100 mL			
1	13.3	58.0	11.69	ND	11.8	59.8	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			8.8						8.5		ND	ND	ND	ND			
2	14.2	58.9	11.38	ND	10.6	64.7	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			8.4						8.8		ND	ND	ND	ND			
3	14.7	58.6	11.51	ND	10.7	58.7	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.0			8.4						8.5		ND	ND	ND	ND			
4	15.2	57.8	11.52	ND	11.6	57.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9	12.18	6.28	7.8	22.0	2.0	0.5	0.5	8.0	1.6	3.2	1.9	5.0	21	21	8.3	1.1	ND	ND	ND	ND
5	15.0	58.6	11.04	ND	11.4	58.0	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			8.8						8.5		ND	ND	ND	ND			
6	15.0	58.8	11.12	ND	10.2	54.1	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.9			8.9						8.3		ND	ND	ND	ND			
7	14.2	58.0	11.01	ND	8.7	54.4	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			9.0						8.5		ND	ND	ND	ND			
8	13.6	58.0	10.96	ND	8.0	55.3	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.0			9.5						8.6		ND	ND	ND	ND			
9	14.3	59.1	10.73	ND	8.2	63.8	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.5			8.4						8.6		ND	ND	ND	ND			
10	15.1	58.4	10.95	ND	10.4	59.4	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.9			8.4						8.6		ND	ND	ND	ND			
11	14.7	57.7	11.16	ND	12.2	53.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9	10.0	10.0	7.8			9.0	2.3	4.3			19	8.5	1.1	ND	ND	ND	ND			
12	13.9	58.1	10.71	ND	12.7	61.8	6.0	6.0	6.7	6.7	5.9	6.9	5.9	9.0	5.0	7.8	2.0	0.5	7.5		3.9	9.0			8.5		ND	ND	ND	ND			
13	13.7	59.6	9.94	ND	12.5	60.3	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			9.2						8.7		ND	ND	ND	ND			
14	13.2	58.8	9.53	ND	12.2	75.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			7.2						8.9		ND	ND	ND	ND			
15	13.2	60.3	8.19	ND	11.8	68.8	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			7.0						8.9		ND	ND	ND	ND			
16	14.3	62.8	7.63	ND	11.1	82.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.3			10.0						8.8		ND	ND	ND	ND			
17	14.5	60.3	7.45	ND	10.5	81.4	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.1			9.0						8.9		ND	ND	ND	ND			
18	14.7	59.6	7.37	ND	9.8	66.3	6.0	6.0	6.7	6.7	5.9	6.9	5.9	9.0	4.0	7.7			8.3	1.7	5.2			20	8.6	6.4	ND	ND	ND	ND			
19	14.9	62.1	7.43	ND	8.9	68.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			7.6						8.7		ND	ND	ND	ND			
20	15.1	61.3	7.47	ND	8.2	74.8	6.0	6.0	6.7	6.7	5.9	6.9	5.9	19.0	12.0	8.1	2.0	0.5	6.9		4.4	5.0			8.7		ND	ND	ND	ND			
21	15.0	59.6	7.43	ND	8.6	63.1	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			8.2						8.6		ND	ND	ND	ND			
22	14.9	59.4	7.34	ND	10.3	72.3	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			6.8						8.4		ND	ND	ND	ND			
23	15.8	60.3	7.42	ND	11.8	76.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9	14.0	14.0	8.0	2.0	0.5	6.6		3.7	5.0			8.6		ND	ND	ND	ND			
24	15.8	61.3	4.71	ND	13.2	82.4	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			7.2						8.0		ND	ND	ND	ND			
25	16.1	61.1	6.18	ND	13.6	68.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9	12.0	9.0	7.5			7.9	1.6	2.9			15	8.2	1.1	ND	ND	ND	ND			
26	16.1	61.5	7.82	ND	13.1	76.8	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			7.4						8.3		ND	ND	ND	ND			
27	16.0	61.5	7.65	ND	8.1	90.4	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			15.5						8.3		ND	ND	ND	ND			
28	15.6	60.8	7.64	ND	5.5	60.1	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.3			8.5						8.3		ND	ND	ND	ND			
29	15.6	61.4	7.62	ND	2.6	64.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.3			8.4						8.3		ND	ND	ND	ND			
30	16.8	61.9	7.63	ND	0.0		6.0	6.0	6.7	6.7	5.9	6.9	5.9														ND	ND	ND	ND			
31																																	
Ave	14.8	59.8	9.0		9.9	66.7	6.0	6.0	6.7	6.7	5.9	6.9	5.9	12.9	11.0	7.8	6.0	0.5	8.4	1.8	4.1	6.0	21.0	18.8	8.5	5							
Max	16.8	62.8	11.7		13.6	90.4	6.0	6.0	6.7	6.7	5.9	6.9	5.9	19.0	28.0	8.5	22.0	0.5	15.5	2.3	5.2	9.0	21.0	21.0	8.9	1.49							
Min	13.2	57.7	4.7		0.0	53.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9	9.0	4.0	7.3	2.0	0.5	6.6	1.6	2.9	5.0	21.0	15.0	8.0								

July 2008

ND = No Discharge

Jim Harps		Permits & Analysis Manager		City of Logan Monthly Operational Report WASTEWATER TREATMENT FACILITY														August		2008											
Name		Title																Month		Year											
Date	Lagoons - Hdworks Influent		Lagoons - Eff		Wetlands - 002 Effluent		Depth of Water in Cells (ft)							Analytical Results - Wetlands - 002								001A				001B					
	Rate (MGD)	TEMP (°F)	Rate (MGD)	Rate (MGD)	Rate (MGD)	TEMP (°F)																E-Coli				BOD ₅ (mg/L)	TSS (mg/L)	pH	E-Coli	BOD ₅ (mg/L)	TSS (mg/L)
							A1	A2	B1	B2	C	D	E	BOD ₅ (mg/L)	TSS (mg/L)	pH	Copper (ug/L)	Lead (ug/L)	DO (mg/L)	NH ₃ (mg/L)	Total P (mg/L)	O & G (mg/L)	BOD ₅ (mg/L)	TSS (mg/L)	pH						
1	16.1	66.3	10.30	2.18	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			8.2				8.2		
2	15.4	66.2	10.40	2.75	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			8.3				8.3		
3	15.3	65.5	10.45	3.06	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			8.3				8.3		
4	16.3	66.4	10.43	2.93	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			8.3				8.3		
5	15.9	66.6	10.59	0.80	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			8.6				8.7		
6	16.0	66.1	10.60	0.53	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND		50	8.2	16,28		32	8.2	81,77	
7	16.2	64.7	10.77	3.26	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			7.2				7.1		
8	16.2	66.8	11.56	3.29	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			6.5				8.3		
9	15.3	65.4	11.17	3.26	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			8.3				8.3		
10	15.2	66.7	11.19	ND	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			8.4				8.4		
11	15.9	39.7	11.16	ND	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			7.9				7.8		
12	15.8	39.7	11.07	ND	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			7.9				7.8		
13	15.6	44.1	11.06	ND	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	12	29	7.2	59,93	24	31	7.4	82	
14	15.5	46.4	11.02	1.81	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			8.1				8.0		
15	15.1	46.6	11.03	1.97	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			8.2				8.0		
16	14.6	35.3	10.86	1.80	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			7.9				7.8		
17	14.1	34.6	10.89	2.36	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			7.8				7.8		
18	15.1	35.5	10.82	2.31	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			7.9				7.9		
19	15.0	35.5	10.80	2.26	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			7.8				7.6		
20	14.7	35.1	10.76	2.29	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND		9	7.6	8,2		7	7.8	13,6	
21	14.2	35.3	10.31	1.90	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			7.8				7.9		
22	14.6	35.6	10.68	2.31	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			7.9				7.8		
23	14.6	36.4	10.76	ND	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			7.8				7.7		
24	14.6	34.9	10.76	ND	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			7.8				7.7		
25	15.8	44.5	10.68	1.79	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			7.7				7.8		
26	15.4	35.8	10.57	1.56	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			7.8				7.8		
27	15.0	41.2	10.69	1.63	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			7.7				7.7		
28	14.9	35.6	10.71	1.64	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND		8	7.7	6,3		7	7.7	29,20	
29	14.6	35.6	10.61	1.75	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			7.7				7.8		
30	14.0	35.5	10.56	1.35	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			7.7				7.7		
31	14.4	33.8	10.78	ND	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			7.8				7.8		
Ave	15.2	47.0	10.8	2.1	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	12.0	24.0	7.9	74	24.0	19.3	7.9		82
Max	16.3	66.8	11.6	3.3	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	12.0	50.0	8.6	12,77	24.0	32.0	8.7		30,24
Min	14.0	33.8	10.3	0.5	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	12.0	8.0	6.5		24.0	7.0	7.1		
ND = No Discharge																															

ND = No Discharge

City of Logan																															
Monthly Operational Report																															
WASTEWATER TREATMENT FACILITY																															
Jim Harps			September 2008																												
Permits & Analysis Manager																															
Name			Title																												
Date	Lagoons - Hdworks		Lagoons - Eff		Wetlands - 002		Depth of Water in Cells (ft)							Analytical Results - Wetlands - 002								001A				001B					
	Influent		001A	001B	Effluent																										
	Rate (MGD)	TEMP (°F)	Rate (MGD)	Rate (MGD)	Rate (MGD)	TEMP (°F)	A1	A2	B1	B2	C	D	E	BOD ₅ (mg/L)	TSS (mg/L)	pH	Copper (ug/L)	Lead (ug/L)	DO (mg/L)	NH ₃ (mg/L)	Total P (mg/L)	O & G (mg/L)	BOD ₅ (mg/L)	TSS (mg/L)	pH	E-Coli Eff No./100 mL	BOD ₅ (mg/L)	TSS (mg/L)	pH	E-Coli Eff No./100 mL	
1	15.6	67.5	11.39	ND	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			7.7		ND	ND	7.8	ND
2	14.8	66.9	11.31	ND	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			7.7		ND	ND	7.7	ND	
3	14.4	67.1	10.99	2.04	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	5	5	7.8	9,10	5	5	7.9	7,9	
4	14.2	66.9	10.97	1.82	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			7.8				7.9		
5	13.8	66.6	10.93	1.40	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			7.9				7.8		
6	13.6	66.6	10.87	1.46	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			7.8				7.8		
7	13.5	66.9	10.89	2.08	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			7.8				7.8		
8	14.6	67.3	10.83	1.24	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			7.8				7.8		
9	14.9	66.9	10.96	1.27	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			7.9				7.9		
10	14.9	66.2	10.86	1.04	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND		6	7.8	9,3		4	7.7	58,42	
11	14.4	67.3	10.81	1.09	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			7.8				7.8		
12	14.3	66.4	10.74	0.93	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			7.9				7.9		
13	13.9	65.7	10.73	0.69	ND - 0.6	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			7.8				7.8		
14	13.5	66.7	10.70	3.92	ND - 2.7	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			7.9				7.9		
15	14.2	67.8	10.61	1.21	ND - 8.9	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			7.9				7.9		
16	14.1	66.4	10.59	1.53	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			7.9				7.8		
17	13.9	66.7	10.57	1.47	2.7	77.0	6.0	6.0	6.7	6.7	5.9	6.9	5.9	5.0	5.0	7.5	3.0	0.6	7.5	2.1	5.2	0.0		7	7.8	5,11		6	7.6	9,15	
18	13.9	66.7	10.58	1.31	9.6	82.8	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.4			7.1			0.0			7.8				7.8		
19	13.7	65.4	10.56	1.13	13.5	68.0	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			8.1			0.0			7.9				7.9		
20	13.7	65.5	10.73	ND	14.4	65.1	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			8.2			0.0			7.8		ND	ND	7.8	ND	
21	12.9	65.9	10.72	ND	12.8	58.7	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			8.8			0.0			7.9		ND	ND	7.9	ND	
22	14.3	66.3	10.98	ND	11.3	73.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			7.5			0.0			7.9		ND	ND	7.9	ND	
23	13.6	53.3	10.85	ND	13.5	59.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			8.1			0.0			7.9		ND	ND	7.9	ND	
24	13.3	57.2	10.57	ND	12.0	69.4	6.0	6.0	6.7	6.7	5.9	6.9	5.9	5.0	5.0	7.5			7.8	1.9	5.3	0.0		7	7.9	2,2	ND	7	7.9	5,29	
25	13.4	53.9	10.57	ND	10.5	66.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			7.9			0.0			7.9		ND	ND	7.9	ND	
26	13.3	51.8	10.42	ND	9.1	63.8	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			7.6			0.0			7.7		ND	ND	7.9	ND	
27	13.0	54.7	10.37	ND	6.9	64.8	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			8.8			0.0			7.9		ND	ND	7.9	ND	
28	12.8	61.1	10.35	ND	4.9	80.0	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			7.4			0.0			7.9		ND	ND	7.9	ND	
29	13.6	60.3	10.30	ND	4.9	81.8	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			7.3			0.0			7.6		ND	ND	7.9	ND	
30	13.5	56.6	10.20	ND	6.5	61.4	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			8.9			0.0			7.8		ND	ND	7.9	ND	
31																															
Ave	13.9	63.8	10.7	1.5	9.5	69.4	6.0	6.0	6.7	6.7	5.9	6.9	5.9	5.0	5.0	7.6	3.0	0.6	7.9	2.0	5.3	0.0	5.0	6.3	7.8	9.5	5.0	5.5	7.8	49.4	
Max	15.6	67.8	11.4	3.9	14.4	82.8	6.0	6.0	6.7	6.7	5.9	6.9	5.9	5.0	5.0	7.7	3.0	0.6	8.9	2.1	5.3	0.0	5.0	7.0	7.9	5.2	5.0	7.0	7.9	15.3	
Min	12.8	51.8	10.2	0.7	2.7	58.7	6.0	6.0	6.7	6.7	5.9	6.9	5.9	5.0	5.0	7.4	3.0	0.6	7.1	1.9	5.2	0.0	5.0	5.0	7.6		5.0	4.0	7.6		
ND = No Discharge																															

ND = No Discharge

Jim Harps Permits & Analysis Manager

Name	Title														Date	Month														Year		
	Lagoons - Hdworks		Lagoons - Eff		Wetlands - 002		Depth of Water in Cells (ft)									Analytical Results - Wetlands - 002								001A				001B				
	Influent		001A	001B	Effluent																			BOD ₅		TSS		pH			E-Coli	
	Rate (MGD)	TEMP (°F)	Rate (MGD)	Rate (MGD)	Rate (MGD)	TEMP (°F)	A1	A2	B1	B2	C	D	E	(mg/L)		(mg/L)		(ug/L)	(ug/L)	(mg/L)	(mg/L)	Total P (mg/L)	O & G (mg/L)	(mg/L)	(mg/L)		Eff No./100 mL	(mg/L)	(mg/L)			Eff No./100 mL
1	13.7	65.9	10.29	ND	7.7	56.9	6.0	6.0	6.7	6.7	5.9	6.9	5.9	5.0	4.0	7.6	1.0	0.5	8.5	2.3	3.7			5	15	7.9	8.3	ND	ND	ND	ND	
2	13.7	65.7	10.24	ND	8.5	58.7	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			7.8							7.9		ND	ND	ND	ND	
3	13.5	64.5	10.28	ND	9.0	56.3	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			8.7							7.9		ND	ND	ND	ND	
4	13.9	65.0	10.85	ND	9.8	55.3	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			8.8							7.9		ND	ND	ND	ND	
5	14.3	66.0	10.99	ND	10.3	54.1	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			5.8							8.0		ND	ND	ND	ND	
6	14.3	65.6	10.74	ND	10.3	53.7	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			8.6							8.0		ND	ND	ND	ND	
7	13.5	64.4	10.57	ND	10.0	51.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			9.5							7.8		ND	ND	ND	ND	
8	12.9	66.9	10.54	ND	9.7	52.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9	5.0	4.0	7.6			9.0	3.0	3.9			14	8.0	15.6	ND	ND	ND	ND		
9	12.8	65.2	10.64	ND	9.6	46.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			9.3							7.9		ND	ND	ND	ND	
10	12.1	64.5	10.56	ND	9.3	46.3	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			9.4							8.0		ND	ND	ND	ND	
11	12.2	63.1	10.47	ND	9.5	42.8	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.4			9.3							8.0		ND	ND	ND	ND	
12	11.5	63.9	10.71	ND	9.4	42.8	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			9.0							7.9		ND	ND	ND	ND	
13	11.8	65.0	10.50	ND	9.5	40.4	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			9.0							8.0		ND	ND	ND	ND	
14	11.5	64.0	10.22	ND	9.6	43.1	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			8.9							7.7		ND	ND	ND	ND	
15	11.4	65.8	10.12	ND	9.5	48.3	6.0	6.0	6.7	6.7	5.9	6.9	5.9	5.0	4.0	7.8			9.4	2.2	2.7			21	8.0	23,14	ND	ND	ND	ND		
16	11.2	66.0	10.11	ND	9.4	46.1	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			8.0							8.0		ND	ND	ND	ND	
17	10.7	64.0	9.93	ND	9.4	54.0	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.9																

ND = No Discharge

City of Logan
Monthly Operational Report
WASTEWATER TREATMENT FACILITY

Jim Harps
Permits & Analysis Manager

November
2008

Name		Title						Month		Year																						
Date	Lagoons - Hdworks		Lagoons - Eff		Wetlands - 002		Depth of Water in Cells (ft)								Analytical Results - Wetlands - 002										001A				001B			
	Influent		001A	001B	Effluent																				001A				001B			
	Rate (MGD)	TEMP (°F)	Rate (MGD)	Rate (MGD)	Rate (MGD)	TEMP (°F)	A1	A2	B1	B2	C	D	E	BOD ₅ (mg/L)	TSS (mg/L)	pH	Copper (ug/L)	Lead (ug/L)	DO (mg/L)	NH ₃ (mg/L)	Total P (mg/L)	O & G (mg/L)	BOD ₅ (mg/L)	TSS (mg/L)	pH	E-Coli Eff No./100 mL	BOD ₅ (mg/L)	TSS (mg/L)	pH	E-Coli Eff No./100 mL		
1	10.1	62.8	8.60	ND	9.3	61.4	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			8.7						7.5		ND	ND	ND	ND		
2	11.0	62.7	9.36	ND	10.1	56.3	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			8.7						8.3		ND	ND	ND	ND		
3	10.8	63.0	8.98	ND	10.1	56.9	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.1			9.0						8.3		ND	ND	ND	ND		
4	11.6	63.1	9.27	ND	10.5	60.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.9			8.3						8.4		ND	ND	ND	ND		
5	10.9	62.9	9.13	ND	10.5	50.8	6.0	6.0	6.7	6.7	5.9	6.9	5.9	5.0	4.0	7.7	2.0	1.2	9.6	0.5	3.0		9	30	8.3	42,49	ND	ND	ND	ND		
6	10.3	61.8	8.99	ND	10.1	63.7	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.1			8.3						8.2		ND	ND	ND	ND		
7	10.2	62.0	8.94	ND	10.0	51.7	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			8.8						8.4		ND	ND	ND	ND		
8	9.7	61.7	8.76	ND	9.9	54.9	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			8.5						8.4		ND	ND	ND	ND		
9	9.5	61.2	8.81	ND	9.8	62.1	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			7.9						8.3		ND	ND	ND	ND		
10	11.0	62.5	9.00	ND	10.2	46.9	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			9.9						8.4		ND	ND	ND	ND		
11	10.5	60.7	8.84	ND	10.0	57.0	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			8.7						8.3		ND	ND	ND	ND		
12	10.4	62.0	8.88	ND	10.0	59.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9	8.0	4.0	7.6			8.8	0.4	2.5		16	31	8.3	650, 730	ND	ND	ND	ND		
13	10.5	61.4	8.77	ND	9.9	55.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.3			9.0						8.3		ND	ND	ND	ND		
14	9.9	62.6	8.23	ND	9.7	59.7	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			8.5						8.3	1,1,1,1,1	ND	ND	ND	ND		
15	9.6	61.1	5.88	ND	9.5	52.4	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			9.1						8.5		ND	ND	ND	ND		
16	9.1	61.2	4.40	ND	9.5	53.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			9.4						8.4		ND	ND	ND	ND		
17	9.8	61.5	3.65	ND	9.4	44.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.0			11.8						8.6		ND	ND	ND	ND		
18	9.7	62.9	3.40	ND	9.3	45.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			10.7						8.5		ND	ND	ND	ND		
19	9.6	62.0	3.21	ND	8.9	55.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9	5.0	4.0	7.7			9.1	0.6	2.5		16	26	8.5	1,1	ND	ND	ND	ND		
20	9.7	60.2	3.26	ND	8.4	52.0	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			9.3						8.8		ND	ND	ND	ND		
21	9.4	61.2	3.23	ND	7.5	65.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			8.1						8.7		ND	ND	ND	ND		
22	9.2	61.4	3.22	ND	6.6	43.7	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			10.6						8.7		ND	ND	ND	ND		
23	8.8	61.9	3.21	ND	5.7	57.0	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			9.0						7.7		ND	ND	ND	ND		
24	9.2	61.3	3.34	ND	5.2	50.7	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			9.4						8.7		ND	ND	ND	ND		
25	9.0	56.1	3.40	ND	5.0	34.0	6.0	6.0	6.7	6.7	5.9	6.9	5.9	5.0	6.0	7.8	7.0	1.4	6.0	0.5	3.2		18	35	8.9	1,1	ND	ND	ND	ND		
26	8.8	60.2	3.48	ND	5.0	52.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			8.9						8.9		ND	ND	ND	ND		
27	8.3	59.4	3.69	ND	5.1	52.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			9.3						8.9		ND	ND	ND	ND		
28	8.1	59.2	3.86	ND	5.1	37.4	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			7.4						8.9		ND	ND	ND	ND		
29	8.7	60.2	4.06	ND	5.1	38.3	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			6.1						8.8		ND	ND	ND	ND		
30	8.5	59.3	4.16	ND	5.2	38.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			5.3						8.9		ND	ND	ND	ND		
31																																
Ave	9.7	61.3	6.1	ND	8.4	52.3	6.0	6.0	6.7	6.7	5.9	6.9	5.9	5.8	4.5	7.7	4.5	1.3	8.7	0.5	2.8		14.8	30.5	8.5	4.9	ND	ND	ND	ND		
Max	11.6	63.1	9.4	ND	10.5	65.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9	8.0	6.0	8.1	7.0	1.4	11.8	0.6	3.2		18.0	35.0	8.9	45.4	ND	ND	ND	ND		
Min	8.1	56.1	3.2	ND	5.0	34.0	6.0	6.0	6.7	6.7	5.9	6.9	5.9	5.0	4.0	7.0	2.0	1.2	5.3	0.4	2.5		9.0	26.0	7.5		ND	ND	ND	ND		

ND = No Discharge

City of Logan
Monthly Operational Report
WASTEWATER TREATMENT FACILITY

Jim Harps
Name Title
Permits & Analysis Manager

December 2008
Month Year

Date	Lagoons - Hdworks		Lagoons - Eff		Wetlands - 002		Depth of Water in Cells (ft)								Analytical Results - Wetlands - 002								001A				001B				
	Influent		001A	001B	Effluent										BOD ₅	TSS	pH	Copper	Lead	DO	NH ₃	Total P	O & G	BOD ₅	TSS	pH	E-Coli		BOD ₅	TSS	pH
	Rate (MGD)	TEMP (°F)	Rate (MGD)	Rate (MGD)	Rate (MGD)	TEMP (°F)	A1	A2	B1	B2	C	D	E	(mg/L)	(mg/L)		(ug/L)	(ug/L)	(mg/L)	(mg/L)					(mg/L)	(mg/L)		(mg/L)	(mg/L)		
1	9.1	60.2	4.14	ND	5.2	37.0	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			10.2							8.8		ND	ND	0.0	ND
2	9.3	60.4	4.51	ND	5.4	39.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			6.8							8.9		ND	ND	0.0	ND
3	9.4	61.1	4.55	ND	5.7	40.1	6.0	6.0	6.7	6.7	5.9	6.9	5.9	5.0	4.0	7.8			9.3	0.7	2.5		15	27	8.9	1,1	ND	ND	0.0	ND	
4	9.2	59.4	4.70	ND	5.9	39.7	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			6.6							8.9		ND	ND	0.0	ND
5	9.0	60.5	4.82	ND	6.0	36.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.9			7.6							8.9		ND	ND	0.0	ND
6	9.2	59.8	4.80	ND	6.2	39.9	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.0			11.7							8.9		ND	ND	0.0	ND
7	8.6	58.9	4.99	ND	6.3	35.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.9			8.8							9.0		ND	ND	0.0	ND
8	9.4	59.1	5.06	ND	6.6	37.0	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.9			9.2							8.9		ND	ND	0.0	ND
9	9.0	59.7	5.25	ND	6.6	35.1	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.9			7.5							9.0		ND	ND	0.0	ND
10	9.0	59.5	5.20	ND	6.7	33.7	6.0	6.0	6.7	6.7	5.9	6.9	5.9	5.0	4.0	7.9	2.0	1.3	6.3	0.5	3.1		17	26	8.9	1,1	ND	ND	0.0	ND	
11	9.0	59.8	5.32	ND	6.8	34.7	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.9			8.1							9.0		ND	ND	0.0	ND
12	8.9	59.0	5.55	ND	7.0	35.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.9			7.5							8.9		ND	ND	0.0	ND
13	9.0	37.1	6.18	ND	7.4	34.0	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			6.2							8.9		ND	ND	0.0	ND
14	8.5	57.2	6.24	ND	7.5	37.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			10.7							8.9		ND	ND	0.0	ND
15	9.0	57.7	6.29	ND	7.3	33.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			13.1							8.9		ND	ND	0.0	ND
16	8.9	58.1	6.10	ND	7.2	33.9	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			8.6							8.9		ND	ND	0.0	ND
17	8.9	58.9	6.55	ND	7.0	33.8	6.0	6.0	6.7	6.7	5.9	6.9	5.9	5.0	4.0	8.0			9.5	0.6	3.3		19	28	8.9	3,1	ND	ND	0.0	ND	
18	8.8	58.2	6.73	ND	6.8	32.4	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			7.4							8.9		ND	ND	0.0	ND
19	9.0	58.1	6.42	ND	6.8	35.4	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			11.4							8.8		ND	ND	0.0	ND
20	8.7	56.4	6.92	ND	6.7	32.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.7			8.3							8.7		ND	ND	0.0	ND
21	8.3	55.6	6.93	ND	6.9	33.9	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			11.4							8.7		ND	ND	0.0	ND
22	9.1	56.9	6.57	ND	7.2	33.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.4			8.3							8.7		ND	ND	0.0	ND
23	8.9	57.3	6.69	ND	7.9	34.0	6.0	6.0	6.7	6.7	5.9	6.9	5.9	5.0	5.0	8.4			11.2	2.4	4.7		19	34	8.4	32,52	ND	ND	0.0	ND	
24	8.4	55.3	6.72	ND	8.1	32.3	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.0			6.5							8.6		ND	ND	0.0	ND
25	7.9	55.2	7.17	ND	8.1	33.1	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			8.6							8.6		ND	ND	0.0	ND
26	8.3	55.6	7.97	ND	7.9	33.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.2			8.7							8.6		ND	ND	0.0	ND
27	8.6	56.0	7.84	ND	7.6	32.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.9			7.5							8.5		ND	ND	0.0	ND
28	8.4	54.8	7.78	ND	8.1	33.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			8.4							8.8		ND	ND	0.0	ND
29	9.4	57.4	7.18	ND	7.9	34.1	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			5.4							8.4		ND	ND	0.0	ND
30	9.4	57.4	7.65	ND	8.0	34.1	6.0	6.0	6.7	6.7	5.9	6.9	5.9	6.0	6.0	7.9			7.3	4.2	4.5		13	34	8.3	3,5	ND	ND	0.0	ND	
31	9.3	55.5	8.40	ND	8.3	34.9	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.3			11.0							8.3		ND	ND	0.0	ND
Ave	8.9	57.3	6.2	ND	7.0	35.0	6.0	6.0	6.7	6.7	5.9	6.9	5.9	5.2	4.6	7.8	2.0	1.3	8.7	1.7	3.6	0.0	16.6	29.8	8.8	3.1					30 D GM
Max	9.4	61.1	8.4	ND	8.3	40.1	6.0	6.0	6.7	6.7	5.9	6.9	5.9	6.0	6.0	8.7	2.0	1.3	13.1	4.2	4.7	0.0	19.0	34.0	9.0	40,1					7 D GM Max
Min	7.9	37.1	4.1	ND	5.2	32.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9	5.0	4.0	7.2	2.0	1.3	5.4	0.5	2.5	0.0	13.0	26.0	8.3						

ND = No Discharge

City of Logan
Monthly Operational Report
WASTEWATER TREATMENT FACILITY

Jim Harps Permits & Analysis Manager

January 2009

Name		Title										Month		Year																		
Date	Lagoons - Hdworks Influent		Lagoons - Eff 001A		Wetlands - 002 Effluent		Depth of Water in Cells (ft)							Analytical Results - Wetlands - 002								001A				001B						
	Rate (MGD)	TEMP (°F)	Rate (MGD)	Rate (MGD)	Rate (MGD)	TEMP (°F)	A1	A2	B1	B2	C	D	E	BOD ₅ (mg/L)	TSS (mg/L)	pH	Copper (ug/L)	Lead (ug/L)	DO (mg/L)	NH ₃ (mg/L)	Total P (mg/L)	O & G (mg/L)	BOD ₅ (mg/L)	TSS (mg/L)	pH	E-Coli		BOD ₅ (mg/L)	TSS (mg/L)	pH	E-Coli	
																										Eff No./100 mL					Eff No./100 mL	
1	8.7	55.2	7.54	ND	8.5	69.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.2			8.0							8.3			ND	ND	ND	ND
2	10.5	55.0	7.29	ND	9.5	33.4	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			5.3							8.3			ND	ND	ND	ND
3	11.1	54.2	7.58	ND	9.6	67.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.3			7.9							8.3			ND	ND	ND	ND
4	10.1	54.5	7.99	ND	9.0	54.1	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.2			7.8							8.3			ND	ND	ND	ND
5	10.7	54.4	8.21	ND	8.5	67.3	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.3			6.0							8.1			ND	ND	ND	ND
6	10.6	55.9	7.81	ND	8.5	43.7	6.0	6.0	6.7	6.7	5.9	6.9	5.9			6.7			8.4							8.2			ND	ND	ND	ND
7	11.0	56.4	7.58	ND	8.6	44.7	6.0	6.0	6.7	6.7	5.9	6.9	5.9	5.0	9.0	8.0	6.0	0.9	8.5	6.5	4.6		11	38	8.4	48,77			ND	ND	ND	ND
8	11.0	56.1	7.61	ND	8.8	33.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			6.2							8.0			ND	ND	ND	ND
9	10.9	55.0	7.40	ND	9.0	33.3	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.4			6.7							8.0			ND	ND	ND	ND
10	10.5	54.6	7.59	ND	9.0	33.0	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.4			6.6							7.9			ND	ND	ND	ND
11	10.1	54.3	7.68	ND	8.8	32.9	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.4			6.1							8.0			ND	ND	ND	ND
12	10.7	56.2	7.68	ND	9.0	33.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.4			5.3							8.0			ND	ND	ND	ND
13	10.6	55.9	7.38	ND	9.1	33.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.4			6.0							8.0			ND	ND	ND	ND
14	10.6	56.0	7.52	ND	9.1	41.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9	5.0	6.0	8.0			8.9	8.2	4.4		15	45	8.0	5,12			ND	ND	ND	ND
15	10.5	55.8	7.59	ND	9.0	40.8	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			5.4							7.9			ND	ND	ND	ND
16	10.2	55.8	7.71	ND	8.7	34.8	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			8.6							7.9			ND	ND	ND	ND
17	10.0	54.6	7.80	ND	8.5	32.3	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			6.1							8.0			ND	ND	ND	ND
18	9.3	54.4	7.77	ND	8.1	32.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			5.4							8.0			ND	ND	ND	ND
19	10.0	54.0	7.73	ND	7.7	34.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			7.3							8.0			ND	ND	ND	ND
20	9.9	54.8	7.78	ND	7.5	32.3	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			5.7							8.0			ND	ND	ND	ND
21	9.8	54.9	7.68	ND	7.6	38.9	6.0	6.0	6.7	6.7	5.9	6.9	5.9	5.0	10.0	7.9			9.5	10.3	4.9		14	55	7.9	17,12			ND	ND	ND	ND
22	10.2	54.6	7.91	ND	8.3	32.4	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			5.6							7.9			ND	ND	ND	ND
23	12.6	54.4	8.11	ND	8.7	33.9	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			5.4							8.0			ND	ND	ND	ND
24	13.7	54.0	8.27	ND	10.5	33.0	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			6.9							7.9			ND	ND	ND	ND
25	14.7	53.5	8.39	ND	10.4	32.7	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			5.7							7.9			ND	ND	ND	ND
26	14.2	54.2	8.43	ND	9.7	32.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.3			7.7							7.9			ND	ND	ND	ND
27	12.8	54.8	8.66	ND	9.2	33.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			7.6							7.9			ND	ND	ND	ND
28	12.6	54.9	8.50	ND	9.5	32.3	6.0	6.0	6.7	6.7	5.9	6.9	5.9	5.0	10.0	7.4			6.5	9.7	4.3		17	60	7.7	7,9			ND	ND	ND	ND
29	12.1	53.6	8.55	ND	9.4	35.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			8.0							7.7			ND	ND	ND	ND
30	11.5	53.7	9.72	ND	9.6	32.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.4			8.2							7.7			ND	ND	ND	ND
31	11.2	53.3	8.73	ND	9.5	32.1	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			7.3							7.7			ND	ND	ND	ND
Ave	11.0	54.8	7.9	ND	8.9	38.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9	5.0	8.8	7.6	6.0	0.9	6.9	8.7	4.6	0.0	14.3	49.5	8.0	15.2						36 D GM
Max	14.7	56.4	9.7	ND	10.5	69.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9	5.0	10.0	8.3	6.0	0.9	9.5	10.3	4.9	0.0	17.0	60.0	8.4	60.8						7 D GM Max
Min	8.7	53.3	7.3	ND	7.5	32.1	6.0	6.0	6.7	6.7	5.9	6.9	5.9	5.0	6.0	6.7	6.0	0.9	5.3	6.5	4.3	0.0	11.0	38.0	7.7							

ND = No Discharge

City of Logan
Monthly Operational Report
WASTEWATER TREATMENT FACILITY

Jim Harps Permits & Analysis Manager

February 2009

Name	Title																										Month	Year				
	Lagoons - Hdworks Influent		Lagoons - Eff 001A		Wetlands - 002 Effluent		Depth of Water in Cells (ft)							Analytical Results - Wetlands - 002									001A				001B					
	Rate (MGD)	TEMP (°F)	Rate (MGD)	Rate (MGD)	Rate (MGD)	TEMP (°F)	A1	A2	B1	B2	C	D	E	BOD ₅ (mg/L)	TSS (mg/L)	pH	Copper (ug/L)	Lead (ug/L)	DO (mg/L)	NH ₃ (mg/L)	Total P (mg/L)	O & G (mg/L)	BOD ₅ (mg/L)	TSS (mg/L)	pH	E-Coli Eff No./100 mL	BOD ₅ (mg/L)	TSS (mg/L)	pH	E-Coli Eff No./100 mL		
Date																																
1	10.4	53.4	8.65	ND	9.4	35.3	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			6.9						7.7		ND	ND	ND	ND		
2	11.1	54.1	8.95	ND	9.3	33.9	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.4			6.5						7.7		ND	ND	ND	ND		
3	10.8	54.3	8.96	ND	9.1	37.0	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.4			5.3						7.6		ND	ND	ND	ND		
4	10.8	53.7	10.23	ND	9.1	40.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9	16.0	11.0	7.9	5.0	0.8	9.7	11.7	4.7		28	61	7.6	2400, 2400	ND	ND	ND	ND		
5	10.6	34.7	9.29	ND	9.1	33.7	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.9			5.8						7.6		ND	ND	ND	ND		
6	10.8	53.7	8.83	ND	9.1	37.4	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			5.6						7.8	1,1,1,1,1	ND	ND	ND	ND		
7	10.3	53.1	8.73	ND	9.3	36.3	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.4			5.1						7.6		ND	ND	ND	ND		
8	10.0	53.4	8.83	ND	9.8	35.7	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.4			7.6						7.6		ND	ND	ND	ND		
9	11.6	53.0	10.85	ND	10.2	36.9	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			5.7						7.6		ND	ND	ND	ND		
10	11.7	53.0	8.90	ND	9.3	35.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			6.0						7.8		ND	ND	ND	ND		
11	11.3	54.6	11.85	ND	8.3	35.8	6.0	6.0	6.7	6.7	5.9	6.9	5.9	10.0	11.0	7.9			7.9	7.0	3.3		30	59	7.9	120, 270	ND	ND	ND	ND		
12	11.1	52.8	10.33	ND	9.5	35.7	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			5.8						7.7		ND	ND	ND	ND		
13	10.6	52.8	9.95	ND	9.8	35.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			5.5						8.0	1,1,1,1	ND	ND	ND	ND		
14	10.3	52.7	9.34	ND	9.9	34.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.0			5.2						7.9		ND	ND	ND	ND		
15	9.4	51.6	9.62	ND	9.8	35.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9			6.6			6.4						8.0		ND	ND	ND	ND		
16	10.6	54.3	9.32	ND	9.7	35.3	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.4			5.4						8.0		ND	ND	ND	ND		
17	11.3	53.4	9.39	ND	9.9	42.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.9			6.5						7.7		ND	ND	ND	ND		
18	11.2	54.7	10.00	ND	10.5	38.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9	12.0	12.0	7.6			7.7	8.1	3.9		29	51	7.8	1,1	ND	ND	ND	ND		
19	10.8	52.1	8.83	ND	10.9	36.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.9			5.6						7.9		ND	ND	ND	ND		
20	10.8	55.0	9.19	ND	11.0	39.1	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			6.5						7.9		ND	ND	ND	ND		
21	10.3	52.7	8.98	ND	10.6	37.7	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			6.5						7.9		ND	ND	ND	ND		
22	10.1	52.2	9.07	ND	10.4	37.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			6.1						7.8		ND	ND	ND	ND		
23	10.7	52.8	9.03	ND	11.7	39.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.4			5.5						8.2		ND	ND	ND	ND		
24	11.7	54.3	9.39	ND	12.8	43.1	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			5.5						7.7		ND	ND	ND	ND		
25	12.5	52.5	9.17	ND	11.4	39.1	6.0	6.0	6.7	6.7	5.9	6.9	5.9	16.0	11.0	7.7			6.4	3.6	3.5		37	47	7.8	1,1	ND	ND	ND	ND		
26	13.2	52.2	9.26	ND	11.5	37.9	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			5.1						7.8		ND	ND	ND	ND		
27	12.9	53.1	8.83	ND	11.1	36.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.0			5.9						7.8		ND	ND	ND	ND		
28	12.3	51.7	8.99	ND	11.1	36.3	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			6.2						7.8		ND	ND	ND	ND		
29							6.0	6.0	6.7	6.7	5.9	6.9	5.9																			
30							6.0	6.0	6.7	6.7	5.9	6.9	5.9																			
31							6.0	6.0	6.7	6.7	5.9	6.9	5.9																			
Ave	11.0	52.6	9.4	ND	10.1	37.1	6.0	6.0	6.7	6.7	5.9	6.9	5.9	13.5	11.3	7.7	5.0	0.8	6.2	7.6	3.9	0.0	31.0	54.5	7.8	4.6					30 D GM	
Max	13.2	55.0	11.9	ND	12.8	43.1	6.0	6.0	6.7	6.7	5.9	6.9	5.9	16.0	12.0	8.4	5.0	0.8	9.7	11.7	4.7	0.0	37.0	61.0	8.2	9.2					7 D GM Max	
Min	9.4	34.7	8.7	ND	8.3	33.7	6.0	6.0	6.7	6.7	5.9	6.9	5.9	10.0	11.0	6.6	5.0	0.8	5.1	3.6	3.3	0.0	28.0	47.0	7.6							

ND = No Discharge

City of Logan
Monthly Operational Report
WASTEWATER TREATMENT FACILITY

Jim Harps Permits & Analysis Manager

March 2009

Name		Title						Month		Year																						
Date	Lagoons - Hdworks		Lagoons - Eff		Wetlands - 002		Depth of Water in Cells (ft)								Analytical Results - Wetlands - 002										001A				001B			
	Influent		001A		001B										Effluent		BOD ₅ (mg/L)	TSS (mg/L)	pH	Copper (ug/L)	Lead (ug/L)	DO (mg/L)	NH ₃ (mg/L)	Total P (mg/L)	O & G (mg/L)	BOD ₅ (mg/L)	TSS (mg/L)	pH	E-Coli		BOD ₅ (mg/L)	TSS (mg/L)
	Rate (MGD)	TEMP (°F)	Rate (MGD)	Rate (MGD)	Rate (MGD)	TEMP (°F)	A1	A2	B1	B2	C	D	E	Eff No./100 mL	Eff No./100 mL																	
1	11.6	51.5	9.01	ND	11.0	40.3	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.9			5.5						7.9			ND	ND	ND	ND	
2	12.5	53.5	9.12	ND	11.0	39.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			5.9						7.8			ND	ND	ND	ND	
3	13.0	52.5	8.84	ND	12.1	42.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.0			5.7						7.9			ND	ND	ND	ND	
4	13.9	52.6	9.05	ND	12.4	43.7	6.0	6.0	6.7	6.7	5.9	6.9	5.9	13.0	20.0	8.0	6.0	0.5	7.6	3.9	3.4		39	46	7.9	1700, 1300	ND	ND	ND	ND		
5	14.2	51.4	9.24	ND	12.2	36.8	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			5.1						7.9			ND	ND	ND	ND	
6	13.6	51.9	9.26	ND	11.6	37.8	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			5.1						7.7	1,1,1,1,1	ND	ND	ND	ND		
7	12.5	51.7	9.25	ND	11.3	35.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.4			6.2						7.7			ND	ND	ND	ND	
8	11.5	38.9	9.10	ND	10.9	38.9	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			6.8						7.7			ND	ND	ND	ND	
9	12.8	51.6	10.30	ND	11.3	52.1	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			6.7						7.7			ND	ND	ND	ND	
10	12.9	52.5	10.55	ND	11.5	41.9	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.9			6.2						7.8			ND	ND	ND	ND	
11	12.1	51.4	10.43	ND	11.4	35.3	6.0	6.0	6.7	6.7	5.9	6.9	5.9	17.0	14.0	7.6			5.6	3.8	3.5		38	39	7.8	1,1	ND	ND	ND	ND		
12	12.0	51.3	10.39	ND	11.3	34.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			6.5						7.8			ND	ND	ND	ND	
13	11.8	52.5	10.39	ND	11.4	33.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			6.0						7.7			ND	ND	ND	ND	
14	11.7	51.2	10.43	ND	11.4	37.1	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			7.1						7.7			ND	ND	ND	ND	
15	11.8	41.8	10.22	ND	11.6	38.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			5.5						7.8			ND	ND	ND	ND	
16	13.6	53.1	10.21	ND	12.1	39.1	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			6.4						7.8			ND	ND	ND	ND	
17	13.9	52.9	10.32	ND	12.4	39.3	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			5.5						7.9			ND	ND	ND	ND	
18	13.4	52.5	10.16	ND	12.7	41.4	6.0	6.0	6.7	6.7	5.9	6.9	5.9	8.0	7.0	7.7			7.6	3.8	3.6		31	44	7.7	1,1	ND	ND	ND	ND		
19	13.1	53.1	10.34	ND	13.8	48.0	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			6.3						7.7			ND	ND	ND	ND	
20	12.8	56.1	10.05	ND	14.8	51.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.9			6.5						7.7			ND	ND	ND	ND	
21	12.6	53.0	10.10	ND	16.1	41.9	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.0			7.3						7.6			ND	ND	ND	ND	
22	13.3	52.8	10.38	ND	16.1	36.4	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.9			6.5						7.7			ND	ND	ND	ND	
23	14.2	52.3	10.75	ND	15.0	36.0	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.1			6.4						7.7			ND	ND	ND	ND	
24	13.6	54.1	10.77	ND	17.0	36.9	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.0			6.6						7.8			ND	ND	ND	ND	
25	14.0	52.8	10.76	ND	18.5	36.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9	11.0	15.0	7.9			5.1	4.0	3.4		29	33	7.7	1,1	ND	ND	ND	ND		
26	14.6	52.3	10.98	ND	18.7	39.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.2			7.4						7.8			ND	ND	ND	ND	
27	14.0	55.1	10.90	ND	18.3	41.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.1			8.1						7.9			ND	ND	ND	ND	
28	13.7	53.1	10.74	ND	18.6	41.7	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.1			8.6						8.1			ND	ND	ND	ND	
29	13.8	51.6	11.07	ND	18.5	45.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.1			9.4						8.1			ND	ND	ND	ND	
30	14.5	53.5	11.06	ND	18.1	41.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.0			7.2						8.3			ND	ND	ND	ND	
31	14.8	53.3	11.32	ND	18.1	41.0	6.0	6.0	6.7	6.7	5.9	6.9	5.9	15.0	16.0	7.8			9.8	5.6	3.3		27	36	8.2	1,1	ND	ND	ND	ND		
Ave	13.2	51.9	10.2	ND	13.9	40.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9	12.8	14.4	7.8	6.0	0.5	6.6	4.2	3.4	0.0	32.8	39.6	7.8	2.65					30 D GM	
Max	14.8	56.1	11.3	ND	18.7	52.1	6.0	6.0	6.7	6.7	5.9	6.9	5.9	17.0	20.0	8.2	6.0	0.5	9.8	5.6	3.6	0.0	39.0	46.0	8.3	8.06					7 D GM Max	
Min	11.5	38.9	8.8	ND	10.9	33.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9	8.0	7.0	7.4	6.0	0.5	5.1	3.8	3.3	0.0	27.0	33.0	7.6							

ND = No Discharge

Date	Lagoons - Hdworks		Lagoons - Eff		Wetlands - 002		Depth of Water in Cells (ft)							Analytical Results - Wetlands - 002								001A				001B					
	Influent		001A	001B	Effluent									BOD ₅ (mg/L)	TSS (mg/L)	pH	Copper (ug/L)	Lead (ug/L)	DO (mg/L)	NH ₃ (mg/L)	Total P (mg/L)	O & G (mg/L)	BOD ₅ (mg/L)	TSS (mg/L)	pH	E-Coli		BOD ₅ (mg/L)	TSS (mg/L)	pH	E-Coli
	Rate (MGD)	TEMP (°F)	Rate (MGD)	Rate (MGD)	Rate (MGD)	TEMP (°F)	Eff No./100 mL	Eff No./100 mL																							
1	15.5	53.2	11.48	ND	18.2	41.8	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.9			5.9						8.5			ND	ND	ND	ND
2	15.6	54.1	11.70	ND	18.1	45.1	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.5			11.4						8.5			ND	ND	ND	ND
3	15.3	53.4	11.59	ND	18.1	44.3	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.9			6.1						8.6			ND	ND	ND	ND
4	14.6	52.5	11.68	ND	17.9	52.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.0			1.5						8.7			ND	ND	ND	ND
5	13.6	52.9	11.53	ND	17.7	49.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.9			6.7						8.8			ND	ND	ND	ND
6	14.0	46.4	11.67	ND	17.5	55.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.0			6.5						8.6			ND	ND	ND	ND
7	13.6	54.9	11.56	ND	17.4	52.9	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.9			6.9						8.6			ND	ND	ND	ND
8	13.6	55.1	11.62	ND	17.4	50.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9	7.0	7.0	7.8	3.0	0.5	6.1	4.0	2.1				7.8	1,1		ND	ND	ND	ND
9	13.2	54.0	11.80	ND	17.6	51.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			8.5						8.5			ND	ND	ND	ND
10	12.6	53.9	11.44	ND	17.5	53.8	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			8.2						8.5			ND	ND	ND	ND
11	12.1	53.1	11.38	ND	17.4	54.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			8.3						8.6			ND	ND	ND	ND
12	11.3	53.4	11.19	ND	17.3	54.9	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			7.8						8.7			ND	ND	ND	ND
13	12.4	56.1	11.11	ND	17.2	91.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.9			5.4						8.8			ND	ND	ND	ND
14	13.4	54.0	11.43	ND	17.8	53.3	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.1			7.5						8.7			ND	ND	ND	ND
15	17.8	54.2	12.12	ND	19.5	53.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9	5.0	7.0	7.7			8.4	5.9	2.7		13	34	8.6	2,1		ND	ND	ND	ND
16	19.4	53.4	12.74	ND	20.0	45.1	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.2			8.9						8.7			ND	ND	ND	ND
17	17.7	54.1	12.35	ND	19.6	60.9	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.9			7.8						8.8			ND	ND	ND	ND
18	16.1	54.1	13.29	ND	19.2	59.1	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			4.7						8.8			ND	ND	ND	ND
19	14.7	54.2	13.64	ND	18.8	55.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			8.3						9.0			ND	ND	ND	ND
20	14.9	54.1	13.70	ND	18.5	55.7	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			8.5						8.9			ND	ND	ND	ND
21	14.6	55.9	14.84	ND	18.4	70.3	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.9			6.6						9.0			ND	ND	ND	ND
22	14.3	56.7	15.32	ND	18.3	84.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9	5.0	4.0	7.7			5.8	5.4	2.5			15	9.0	20,23		ND	ND	ND	ND
23	14.0	55.5	15.39	ND	18.4	60.7	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			7.6						9.0			ND	ND	ND	ND
24	13.4	57.0	15.45	ND	18.8	78.0	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			6.8						8.9			ND	ND	ND	ND
25	13.7	56.4	15.42	ND	19.4	55.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			8.2						8.8			ND	ND	ND	ND
26	12.8	55.6	15.32	ND	20.2	56.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			7.9						8.8			ND	ND	ND	ND
27	12.8	55.0	15.19	ND	20.7	51.7	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			8.6						7.7			ND	ND	ND	ND
28	12.9	58.0	15.72	ND	20.6	75.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			7.0						8.4			ND	ND	ND	ND
29	12.5	57.7	16.02	ND	16.3	68.9	6.0	6.0	6.7	6.7	5.9	6.9	5.9	5.0	4.0	7.6			7.3	6.8	2.6			20	8.3	1,1		ND	ND	ND	ND
30	12.3	56.4	15.79	ND	19.7	53.8	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.9			8.3						8.4			ND	ND	ND	ND
31																												ND	ND	ND	ND
Ave	14.2	54.5	13.1	ND	18.4	57.9	6.0	6.0	6.7	6.7	5.9	6.9	5.9	5.5	5.5	7.8	3.0	0.5	7.2	5.5	2.5	0.0	13.0	23.0	8.6	2.3					30 D GM
Max	19.4	58.0	16.0	ND	20.7	91.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9	7.0	7.0	8.5	3.0	0.5	11.4	6.8	2.7	0.0	13.0	34.0	9.0	21.4					7 D GM Max
Min	11.3	46.4	11.1	ND	16.3	41.8	6.0	6.0	6.7	6.7	5.9	6.9	5.9	5.0	4.0	7.6	3.0	0.5	1.5	4.0	2.1	0.0	13.0	15.0	7.7						

ND = No Discharge

City of Logan
Monthly Operational Report
WASTEWATER TREATMENT FACILITY

Jim Harps Permtis & Analysis Manager

May 2009

Name	Title													Month	Year																			
Date	Lagoons - Hdworks		Lagoons - Eff		Wetlands - 002		Depth of Water in Cells (ft)								Analytical Results - Wetlands - 002								001A				001B							
	Influent		Effluent																				BOD ₅		TSS		pH		E-Coli		BOD ₅		TSS	
	Rate (MGD)	TEMP (°F)	Rate (MGD)	Rate (MGD)	Rate (MGD)	TEMP (°F)	A1	A2	B1	B2	C	D	E	(mg/L)	(mg/L)		(ug/L)	(ug/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)		(mg/L)	(mg/L)	(mg/L)		(mg/L)	(mg/L)	(mg/L)		(mg/L)	(mg/L)	(mg/L)
1	12.2	57.1	15.38	ND	18.5	80.8	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			6.6							8.4			0	0	0.0	0		
2	13.6	55.5	15.33	ND	18.4	56.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			8.3							8.3			0	0	0.0	0		
3	13.3	55.6	14.96	ND	18.7	57.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			8.3							8.5			0	0	0.0	0		
4	14.4	56.5	14.53	ND	18.9	58.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			8.2							8.6			0	0	0.0	0		
5	14.0	56.7	14.06	ND	19.1	69.9	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			7.3							8.7			0	0	0.0	0		
6	13.6	58.6	13.76	ND	19.1	57.7	6.0	6.0	6.7	6.7	5.9	6.9	5.9	5.0	4.0	7.5	2.0	0.5	8.2	5.4	2.8			18	24	8.7	1,1	0	0	0.0	0			
7	13.0	56.3	13.41	ND	19.0	63.7	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			7.7							8.9			0	0	0.0	0		
8	12.4	57.3	13.06	ND	18.7	64.7	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			7.2							8.8			0	0	0.0	0		
9	11.9	56.3	12.74	ND	18.3	59.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			8.3							9.0			0	0	0.0	0		
10	11.4	56.0	12.37	ND	18.0	58.9	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			8.1							9.1			0	0	0.0	0		
11	12.2	59.8	12.05	ND	17.8	69.0	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			7.7							9.1			0	0	0.0	0		
12	12.2	58.2	11.83	ND	17.3	65.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			7.9							8.2			0	0	0.0	0		
13	11.7	56.9	11.42	ND	16.6	57.1	6.0	6.0	6.7	6.7	5.9	6.9	5.9	5.0	4.0	7.8			2.0	4.5	2.8				29	8.9	1,1	0	0	0.0	0			
14	12.0	59.1	11.13	ND	16.2	72.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			7.3							8.9			0	0	0.0	0		
15	11.9	59.7	10.84	ND	15.9	77.0	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			7.0							9.1			0	0	0.0	0		
16	11.6	75.0	10.44	ND	15.3	66.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			8.1							8.0			0	0	0.0	0		
17	11.6	57.7	10.16	ND	14.5	58.7	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			8.4							9.1			0	0	0.0	0		
18	12.8	58.9	9.88	ND	13.0	69.0	6.0	6.0	6.7	6.7	5.9	6.9	5.9			9.0			6.7							7.5			0	0	0.0	0		
19	13.1	59.6	9.75	ND	13.0	84.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			6.4							8.8			0	0	0.0	0		
20	13.4	67.1	9.48	ND	11.6	90.4	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			6.2							8.7			0	0	0.0	0		
21	13.6	57.8	9.27	ND	13.5	68.7	6.0	6.0	6.7	6.7	5.9	6.9	5.9	5.0	4.0	7.6			7.7	5.5	3.7				12	8.5	1,1	0	0	0.0	0			
22	13.6	58.2	9.12	ND	11.3	64.8	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			7.6							8.5			0	0	0.0	0		
23	13.7	56.9	9.05	ND	10.9	69.9	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			7.5							8.4			0	0	0.0	0		
24	15.8	56.6	10.93	ND	12.1	58.3	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			8.5							8.3			0	0	0.0	0		
25	16.1	57.3	12.14	ND	12.1	56.8	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			8.6							8.3			0	0	0.0	0		
26	16.0	59.3	12.50	0.32	11.9	57.0	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			8.6							8.3			0	0	0.0	0		
27	15.7	58.9	12.63	1.78	14.0	72.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9	5.0	4.0	7.7			7.6	5.1	3.6				17	8.2	1,1	0	0	0.0	0			
28	15.5	59.2	12.68	2.99	12.3	67.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			7.5							8.3			0	0	0.0	0		
29	15.4	62.8	12.70	2.85	9.6	82.0	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.4			6.5							8.3			0	0	0.0	0		
30	15.1	58.9	12.58	2.58	7.7	58.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.6			8.5							8.3			0	0	0.0	0		
31	15.2	58.7	12.66	ND	6.6	59.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.6			8.5							8.2			0	0	0.0	0		
Ave	13.5	58.8	12.0	2.1	14.8	66.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9	5.0	4.0	7.7	2.0	0.5	7.5	5.1	3.2	0.0	18.0	20.5	8.5	1							30 D GM	
Max	16.1	75.0	15.4	3.0	19.1	90.4	6.0	6.0	6.7	6.7	5.9	6.9	5.9	5.0	4.0	9.0	2.0	0.5	8.6	5.5	3.7	0.0	18.0	29.0	9.1	1							7 D GM Max	
Min	11.4	55.5	9.0	0.3	6.6	56.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9	5.0	4.0	7.5	2.0	0.5	2.0	4.5	2.8	0.0	18.0	12.0	7.5									

ND = No Discharge

City of Logan
Monthly Operational Report
WASTEWATER TREATMENT FACILITY

Jim Harps Permits & Analysis Manager

June 2009

Name	Title													Month	Year																	
	Lagoons - Hdworks		Lagoons - Eff		Wetlands - 002		Depth of Water in Cells (ft)							Analytical Results - Wetlands - 002								001A				001B						
	Influent		001A	001B	Effluent																	BOD ₅	TSS	pH	Copper	Lead	DO	NH ₃	Total P	O & G	BOD ₅	TSS
	Rate (MGD)	TEMP (°F)	Rate (MGD)	Rate (MGD)	Rate (MGD)	TEMP (°F)	A1	A2	B1	B2	C	D	E	(mg/L)	(mg/L)		(ug/L)	(ug/L)	(mg/L)	(mg/L)					(mg/L)	(mg/L)			(mg/L)	(mg/L)		
Date																																
1	16.4	60.9	12.63	ND	5.4	80.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.8			6.9							8.2			ND	ND	ND	ND
2	16.9	60.3	12.76	ND	4.4	63.8	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			8.1							8.2			ND	ND	ND	ND
3	16.6	60.0	12.67	ND	3.3	66.8	6.0	6.0	6.7	6.7	5.9	6.9	5.9	5.0	7.0	8.2	9.2	1.1	8.0	2.9	2.4		17	23	8.0	1,1		ND	ND	ND	ND	
4	16.1	62.9	12.57	ND	5.2	63.7	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			7.8							8.2			ND	ND	ND	ND
5	16.0	59.3	12.63	ND	8.0	58.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			8.3							8.2			ND	ND	ND	ND
6	15.5	59.1	12.67	ND	11.9	56.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			8.6							8.1			ND	ND	ND	ND
7	16.5	59.3	13.08	ND	14.9	56.7	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			8.8							8.0			ND	ND	ND	ND
8	17.4	60.7	13.10	ND	15.4	68.4	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.2			5.4							8.1			ND	ND	ND	ND
9	16.9	60.3	13.12	ND	15.2	57.9	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.0			8.5							8.0			ND	ND	ND	ND
10	17.0	59.3	13.13	ND	15.8	70.7	6.0	6.0	6.7	6.7	5.9	6.9	5.9	5.0	4.0	7.8			7.7	4.8	3.2			23	7.9	1,1		ND	ND	ND	ND	
11	17.3	60.7	13.37	ND	16.7	70.1	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.0			7.2							7.9			ND	ND	ND	ND
12	16.4	62.1	13.27	ND	16.7	57.7	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			8.5							7.9			ND	ND	ND	ND
13	16.1	59.7	13.61	ND	16.4	60.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			7.4							7.8			ND	ND	ND	ND
14	15.1	60.2	13.53	ND	15.4	69.3	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			9.1							7.9			ND	ND	ND	ND
15	15.5	60.1	13.52	ND	14.3	62.7	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.5			7.9							7.5			ND	ND	ND	ND
16	15.4	62.2	13.42	ND	13.4	76.4	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			7.1							8.3			ND	ND	ND	ND
17	16.2	60.2	13.77	ND	13.6	60.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9	5.0	4.0	7.5			8.4	1.6	3.3			15	8.3	1,1		ND	ND	ND	ND	
18	15.8	60.9	13.58	ND	13.4	64.4	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			8.0							8.5			ND	ND	ND	ND
19	15.3	63.9	13.12	ND	13.2	72.0	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			7.4							8.4			ND	ND	ND	ND
20	15.3	60.3	12.05	ND	13.5	60.9	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			8.2							8.4			ND	ND	ND	ND
21	14.9	61.0	12.42	ND	13.7	68.8	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.0			6.9							8.3			ND	ND	ND	ND
22	15.2	71.0	12.75	ND	14.1	67.1	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			7.7							8.5			ND	ND	ND	ND
23	15.3	62.9	13.13	ND	16.0	68.0	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			7.4							8.4			ND	ND	ND	ND
24	15.1	62.0	13.23	ND	16.8	68.4	6.0	6.0	6.7	6.7	5.9	6.9	5.9	5.0	4.0	7.5			7.4	1.3	2.7			17	8.0	1,1		ND	ND	ND	ND	
25	15.2	74.2	13.19	ND	17.0	71.7	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			7.7							8.0			ND	ND	ND	ND
26	15.3	62.1	13.22	ND	17.1	67.9	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			8.1							7.9			ND	ND	ND	ND
27	14.8	61.9	13.04	ND	17.0	63.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			8.2							8.0			ND	ND	ND	ND
28	14.7	61.4	12.93	ND	16.4	61.7	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			8.4							8.0			ND	ND	ND	ND
29	16.0	63.8	12.73	ND	15.2	63.8	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			6.5							8.0			ND	ND	ND	ND
30	16.0	81.1	12.58	ND	13.3	81.1	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			6.6							8.0			ND	ND	ND	ND
31							6.0	6.0	6.7	6.7	5.9	6.9	5.9																ND	ND	ND	ND
Ave	15.9	62.5	13.0	ND	13.4	66.0	6.0	6.0	6.7	6.7	5.9	6.9	5.9	5.0	4.8	7.7	9.2	1.1	7.7	2.7	2.9	0.0	17.0	19.5	8.1	1						30 D GM
Max	17.4	81.1	13.8	ND	17.1	81.1	6.0	6.0	6.7	6.7	5.9	6.9	5.9	5.0	7.0	8.8	9.2	1.1	9.1	4.8	3.3	0.0	17.0	23.0	8.5	1						7 D GM Max
Min	14.7	59.1	12.0	ND	3.3	56.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9	5.0	4.0	7.5	9.2	1.1	5.4	1.3	2.4	0.0	17.0	15.0	7.5							

ND = No Discharge

City of Logan
Monthly Operational Report
WASTEWATER TREATMENT FACILITY

Jim Harps Permits & Analysis Manager

July 2009

Name	Title															Month	Year														
Date	Lagoons - Hdworks Influent		Lagoons - Eff		Wetlands - 002 Effluent		Depth of Water in Cells (ft)							Analytical Results - Wetlands - 002								001A				001B					
	Rate (MGD)	TEMP (°F)	Rate (MGD)	Rate (MGD)	Rate (MGD)	TEMP (°F)	A1	A2	B1	B2	C	D	E	BOD ₅ (mg/L)	TSS (mg/L)	pH	Copper (ug/L)	Lead (ug/L)	DO (mg/L)	NH ₃ (mg/L)	Total P (mg/L)	O & G (mg/L)	BOD ₅ (mg/L)	TSS (mg/L)	pH	E-Coli	BOD ₅ (mg/L)	TSS (mg/L)	pH	E-Coli	
																										Eff No./100 mL				Eff No./100 mL	
1	16.4	61.1	12.41	ND	12.1	63.1	6.0	6.0	6.7	6.7	5.9	6.9	5.9	2.5	4.0	7.5	2.6	0.25	8.2	2.0	2.7			11	13	7.8	1,1	ND	ND	ND	ND
2	16.6	62.9	12.32	ND	12.2	67.7	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			7.8						7.9		ND	ND	ND	ND	
3	16.2	61.3	12.13	ND	13.0	67.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			7.8						8.0		ND	ND	ND	ND	
4	15.9	61.5	12.47	ND	13.9	61.3	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			8.4						8.1		ND	ND	ND	ND	
5	15.9	62.2	12.35	ND	14.6	62.7	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.4			5.1						8.1		ND	ND	ND	ND	
6	17.7	62.8	12.24	ND	15.0	88.1	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			6.4						7.9		ND	ND	ND	ND	
7	17.2	63.4	12.23	ND	15.0	86.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			6.8						8.0		ND	ND	ND	ND	
8	17.1	62.2	12.20	ND	14.7	76.9	6.0	6.0	6.7	6.7	5.9	6.9	5.9	2.5	6.0	7.5			6.8	2.0	2.5			13	7.8	1,1	ND	ND	ND	ND	
9	17.0	62.5	12.14	ND	13.6	63.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			5.9						8.0		ND	ND	ND	ND	
10	16.7	63.7	12.12	ND	12.0	68.1	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.4			6.8						8.0		ND	ND	ND	ND	
11	16.2	62.2	12.11	ND	10.3	73.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.9			7.6						7.9		ND	ND	ND	ND	
12	15.3	63.9	12.02	ND	9.0	71.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			7.5						7.9		ND	ND	ND	ND	
13	16.4	64.7	11.95	ND	8.0	74.9	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			7.5						8.1		ND	ND	ND	ND	
14	16.3	64.2	12.13	ND	6.0	64.7	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			7.9						8.1		ND	ND	ND	ND	
15	16.3	63.0	11.95	ND	4.0	63.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9	2.5	5.0	7.7			5.5	2.5	3.0			15	7.8	20,15	ND	ND	ND	ND	
16	16.3	64.3	11.85	ND	2.6	86.9	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			5.8						8.1		ND	ND	ND	ND	
17	16.2	64.5	11.84	ND	1.6	80.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			7.0						8.0		ND	ND	ND	ND	
18	15.7	64.1	11.97	ND	1.0	76.1	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			7.4						8.2		ND	ND	ND	ND	
19	15.8	64.4	12.61	ND	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			7.9		ND	ND	ND	ND	
20	16.7	64.5	12.73	ND	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			8.1		ND	ND	ND	ND	
21	16.3	65.7	14.17	ND	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			8.0		ND	ND	ND	ND	
22	16.1	64.0	14.55	0.05	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND		20	7.9	47,48	0	0	0.0	0	
23	16.0	79.9	14.59	0.64	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			8.0		0	0	0.0	0	
24	15.9	65.5	14.58	1.60	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			8.1		0	0	0.0	0	
25	15.3	64.8	14.21	1.35	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			8.1		0	0	0.0	0	
26	15.3	64.4	14.12	1.42	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			8.1		0	0	0.0	0	
27	16.7	66.2	14.09	1.55	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			8.3		0	0	0.0	0	
28	16.4	66.1	13.86	1.49	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			8.3		0	0	0.0	0	
29	16.2	65.9	13.78	1.53	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND		40	8.1	21,19	0	0	0.0	0	
30	16.2	65.4	13.45	1.27	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			8.0		0	0	0.0	0	
31	16.0	66.5	13.34	1.31	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			8.2		0	0	0.0	0	
Ave	16.3	64.4	12.9	1.2	9.9	72.0	6.0	6.0	6.7	6.7	5.9	6.9	5.9	2.5	5.0	7.5	2.6	0.25	7.0	2.2	2.7	0.0	11.0	20.2	8.0	7				30 D GM	
Max	17.7	79.9	14.6	1.6	15.0	88.1	6.0	6.0	6.7	6.7	5.9	6.9	5.9	2.5	6.0	7.9	2.6	0.25	8.4	2.5	3.0	0.0	11.0	40.0	8.3	48				7 D GM Max	
Min	15.3	61.1	11.8	0.05	1.0	61.3	6.0	6.0	6.7	6.7	5.9	6.9	5.9	2.5	4.0	7.4	2.6	0.25	5.1	2.0	2.5	0.0	11.0	13.0	7.8						

ND = No Discharge

Jim Harps Permits & Analysis Manager

Name	Title							Month		Year																					
	Lagoons - Hdworks		Lagoons - Eff		Wetlands - 002		Depth of Water in Cells (ft)								Analytical Results - Wetlands - 002								001A				001B				
	Influent		001A		001B																		Effluent		BOD ₅		TSS		pH		E-Coli
Date	Rate (MGD)	TEMP (°F)	Rate (MGD)	Rate (MGD)	Rate (MGD)	TEMP (°F)	A1	A2	B1	B2	C	D	E	BOD ₅ (mg/L)	TSS (mg/L)	pH	Copper (ug/L)	Lead (ug/L)	DO (mg/L)	NH ₃ (mg/L)	Total P (mg/L)	O & G (mg/L)	BOD ₅ (mg/L)	TSS (mg/L)	pH	E-Coli Eff No./100 mL	BOD ₅ (mg/L)	TSS (mg/L)	pH	E-Coli Eff No./100 mL	
1	15.3	65.5	13.13	1.29	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			8.1		0	0	0.0	0
2	14.9	65.6	13.00	1.20	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			8.1		0	0	0.0	0
3	16.2	66.0	13.03	1.39	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			8.1		0	0	0.0	0
4	16.0	65.9	12.73	1.28	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			8.1		0	0	0.0	0
5	15.9	65.1	11.87	0.45	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	13	41	8.0	3,1	0	0	0.0	0	
6	15.9	65.9	13.04	1.59	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			8.0		0	0	0.0	0	
7	15.4	65.5	12.94	1.57	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			8.0		0	0	0.0	0	
8	15.5	65.1	13.37	1.60	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			7.9		0	0	0.0	0	
9	15.1	65.3	12.02	0.30	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			8.1		0	0	0.0	0	
10	15.9	65.5	12.81	0.54	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			8.0		0	0	0.0	0	
11	15.6	66.1	12.75	0.59	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			8.0		0	0	0.0	0	
12	15.6	65.4	12.91	0.84	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	11	26	7.9	61,58	0	0	0.0	0	
13	15.4	66.1	12.92	0.88	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			7.9		0	0	0.0	0	
14	15.2	66.7	12.81	1.37	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			7.9		0	0	0.0	0	
15	14.9	65.6	12.88	1.66	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			7.9		0	0	0.0	0	
16	14.3	65.4	12.88	1.45	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			7.9		0	0	0.0	0	
17	15.1																														

ND = No Discharge

Jim Harps		Permits & Analysis Manager		City of Logan Monthly Operational Report WASTEWATER TREATMENT FACILITY																				September		2009				
Name		Title		Month																				Year						
Date	Lagoons - Hdworks		Lagoons - Eff		Wetlands - 002		Depth of Water in Cells (ft)							Analytical Results - Wetlands - 002								001A				001B				
	Influent		001A	001B	Effluent																									
	Rate (MGD)	TEMP (°F)	Rate (MGD)	Rate (MGD)	Rate (MGD)	TEMP (°F)	A1	A2	B1	B2	C	D	E	BOD ₅ (mg/L)	TSS (mg/L)	pH	Copper (ug/L)	Lead (ug/L)	DO (mg/L)	NH ₃ (mg/L)	Total P (mg/L)	O & G (mg/L)	BOD ₅ (mg/L)	TSS (mg/L)	pH	E-Coli Eff No./100 mL	BOD ₅ (mg/L)	TSS (mg/L)	pH	E-Coli Eff No./100 mL
1	15.3	75.2	12.02	ND	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			8.0		ND	ND	ND	ND
2	15.1	67.5	11.98	ND	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			7.9		ND	ND	ND	ND
3	15.0	67.0	11.87	ND	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND		17	7.7	26,36	ND	ND	ND	ND
4	15.0	79.5	11.48	ND	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			7.8		ND	ND	ND	ND
5	14.6	66.9	7.77	ND	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			7.8		ND	ND	ND	ND
6	13.8	72.7	5.36	ND	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			7.8		ND	ND	ND	ND
7	14.3	72.9	4.35	ND	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			7.7		ND	ND	ND	ND
8	14.8	67.3	4.09	ND	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			7.8		ND	ND	ND	ND
9	14.5	69.3	3.96	ND	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.5	9	7.6	1,1	ND	ND	ND	ND
10	14.4	75.2	3.99	ND	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			7.7		ND	ND	ND	ND
11	14.5	67.4	4.16	ND	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			7.8		ND	ND	ND	ND
12	14.5	67.0	4.25	ND	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			7.7		ND	ND	ND	ND
13	14.0	66.9	4.44	ND	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			7.7		ND	ND	ND	ND
14	16.1	67.2	4.74	ND	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			7.7		ND	ND	ND	ND
15	15.6	67.7	5.23	ND	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			7.7		ND	ND	ND	ND
16	14.6	66.2	5.16	ND	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND		18	7.6	3,4	ND	ND	ND	ND
17	14.3	68.5	5.34	ND	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			7.8		ND	ND	ND	ND
18	14.0	68.9	5.47	ND	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			7.7		ND	ND	ND	ND
19	13.7	67.1	5.64	ND	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			7.7		ND	ND	ND	ND
20	13.4	67.8	5.75	ND	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			7.7		ND	ND	ND	ND
21	13.6	66.7	6.02	ND	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			7.8		ND	ND	ND	ND
22	13.3	68.0	6.12	ND	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND			7.7		ND	ND	ND	ND
23	13.3	66.7	6.16	ND	ND	ND	6.0	6.0	6.7	6.7	5.9	6.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND		12	7.7	3,2	ND	ND	ND	ND
24	13.6	67.5	5.56	ND	1.3	65.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			7.4						7.7		ND	ND	ND	ND
25	13.3	67.1	6.92	ND	12.8	63.8	6.0	6.0	6.7	6.7	5.9	6.9	5.9	2.5	4.0	9.0	5.1	0.25	5.3	0.4	2.1				7.7		ND	ND	ND	ND
26	13.1	67.1	8.00	ND	13.7	62.0	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			7.9						7.7		ND	ND	ND	ND
27	12.8	65.9	4.66	ND	9.3	59.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			8.2						7.7		ND	ND	ND	ND
28	13.5	67.2	10.37	ND	6.5	73.8	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			6.9						7.7		ND	ND	ND	ND
29	13.6	66.5	5.05	ND	7.4	63.8	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			8.3						7.5		ND	ND	ND	ND
30	14.4	65.6	16.24	ND	9.1	61.7	6.0	6.0	6.7	6.7	5.9	6.9	5.9	2.5	2.0	7.6			7.9	1.7	3.1			15	7.6	12,9	ND	ND	ND	ND
31							6.0	6.0	6.7	6.7	5.9	6.9	5.9														ND	ND	ND	ND
Ave	14.2	68.6	6.7	ND	8.6	64.3	6.0	6.0	6.7	6.7	5.9	6.9	5.9	2.5	3.0	7.9	5.1	0.25	7.4	1.1	2.6	0.0	2.5	14.2	7.7	5				30 D GM
Max	16.1	79.5	16.2	ND	13.7	73.8	6.0	6.0	6.7	6.7	5.9	6.9	5.9	2.5	4.0	9.0	5.1	0.25	8.3	1.7	3.1	0.0	2.5	18.0	8.0	31				7 D GM Max
Min	12.8	65.6	4.0	ND	1.3	59.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9	2.5	2.0	7.6	5.1	0.25	5.3	0.4	2.1	0.0	2.5	9.0	7.5					

ND = No Discharge

ND = No Discharge

Jim Harps Permits & Analysis Manager

Name	Title														Month	Year															
Date	Lagoons - Hdworks		Lagoons - Eff		Wetlands - 002		Depth of Water in Cells (ft)							Analytical Results - Wetlands - 002										001A				001B			
	Influent		001A	001B	Effluent																			001A				001B			
	Rate (MGD)	TEMP (°F)	Rate (MGD)	Rate (MGD)	Rate (MGD)	TEMP (°F)	A1	A2	B1	B2	C	D	E	BOD ₅ (mg/L)	TSS (mg/L)	pH	Copper (ug/L)	Lead (ug/L)	DO (mg/L)	NH ₃ (mg/L)	Total P (mg/L)	O & G (mg/L)	BOD ₅ (mg/L)	TSS (mg/L)	pH	E-Coli Eff No./100 mL	BOD ₅ (mg/L)	TSS (mg/L)	pH	E-Coli Eff No./100 mL	
1	13.4	65.8	18.45	ND	9.7	50.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			6.3							7.7		ND	ND	ND	ND
2	12.9	65.5	10.70	ND	9.4	49.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			8.6							7.7		ND	ND	ND	ND
3	12.4	64.8	12.09	ND	9.3	45.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			7.8							7.8		ND	ND	ND	ND
4	13.2	65.5	13.23	ND	9.3	65.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			5.9							7.7		ND	ND	ND	ND
5	13.3	64.9	10.86	ND	9.6	47.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			8.3							7.7		ND	ND	ND	ND
6	12.5	64.7	15.91	ND	9.7	54.7	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			6.4							7.7		ND	ND	ND	ND
7	12.2	65.0	9.27	ND	10.2	45.4	6.0	6.0	6.7	6.7	5.9	6.9	5.9	12.0	2.0	7.6	5.1	0.25	8.4	0.9	2.8			23	18	7.7	2.4	ND	ND	ND	ND
8	12.2	64.5	9.59	ND	10.7	48.3	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			8.5							7.7		ND	ND	ND	ND
9	12.1	64.6	9.49	ND	11.0	47.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			4.9							7.6		ND	ND	ND	ND
10	11.5	64.6	8.61	ND	11.1	47.3	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			8.2							7.7		ND	ND	ND	ND
11	11.2	64.1	8.94	ND	11.1	47.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			7.7							7.6		ND	ND	ND	ND
12	11.5	64.4	8.12	ND	11.0	64.3	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			5.3							7.7		ND	ND	ND	ND
13	11.6	64.4	7.76	ND	11.0	51.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			7.8							7.7		ND	ND	ND	ND
14	12.5	64.3	8.13	ND	11.0	50.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9	2.5	2.0	7.5			8.2	0.8	2.4			2.5	16	7.8	2.3	ND	ND	ND	ND
15	11.7	64.1	7.69	ND	10.7	54.8	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			7.0							7.7		ND	ND	ND	ND
16	11.3	64.4	6.78	ND	10.3	52.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			8.3							7.6		ND	ND	ND	ND
17	10.8	64.2	6.75	ND	9.9	48.1	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			6.8							7.8</					

ND = No Discharge

City of Logan
Monthly Operational Report
WASTEWATER TREATMENT FACILITY

Jim Harps Permits & Analysis Manager

November 2009

Name	Title														Month	Year																		
Date	Lagoons - Hdworks Influent		Lagoons - Eff 001A		Wetlands - 002 Effluent		Depth of Water in Cells (ft)							Analytical Results - Wetlands - 002								001A				001B								
	Rate (MGD)	TEMP (°F)	Rate (MGD)	Rate (MGD)	Rate (MGD)	TEMP (°F)	A1	A2	B1	B2	C	D	E	BOD ₅ (mg/L)	TSS (mg/L)	pH	Copper (ug/L)	Lead (ug/L)	DO (mg/L)	NH ₃ (mg/L)	Total P (mg/L)	O & G (mg/L)	BOD ₅ (mg/L)	TSS (mg/L)	pH	E-Coli		BOD ₅ (mg/L)	TSS (mg/L)	pH	E-Coli			
																										Eff No./100 mL					Eff No./100 mL			
1	10.3	62.1	8.59	ND	8.4	44.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			5.4						8.4			ND	ND	ND	ND			
2	10.4	61.9	8.33	ND	8.1	45.1	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			6.8						8.4			ND	ND	ND	ND			
3	10.3	62.5	8.41	ND	8.1	45.3	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			7.7						8.5			ND	ND	ND	ND			
4	10.3	62.2	8.43	ND	8.1	42.3	6.0	6.0	6.7	6.7	5.9	6.9	5.9	2.5	2.0	7.7	3.4	1.4	5.6	0.2	1.2		10	37	8.6	31,28	ND	ND	ND	ND				
5	10.3	61.9	8.58	ND	8.2	45.1	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			8.1						8.6			ND	ND	ND	ND			
6	10.3	62.7	8.24	ND	8.2	48.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			7.7						8.7			ND	ND	ND	ND			
7	10.1	62.8	8.36	ND	8.2	47.8	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			9.0						8.8			ND	ND	ND	ND			
8	9.4	61.4	8.22	ND	8.3	43.1	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			8.0						8.8			ND	ND	ND	ND			
9	10.1	62.8	8.24	ND	8.1	42.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			7.6						9.0			ND	ND	ND	ND			
10	10.2	61.2	8.40	ND	8.4	61.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9	2.5	2.0	7.9			5.8	0.2	1.2		14	40	8.8	8,9	ND	ND	ND	ND				
11	10.2	46.7	8.32	ND	8.3	45.1	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.9			6.7						8.9			ND	ND	ND	ND			
12	10.5	60.4	8.30	ND	8.4	46.8	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			9.0						8.9			ND	ND	ND	ND			
13	10.0	61.2	8.28	ND	8.4	43.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.0			6.3						8.9			ND	ND	ND	ND			
14	10.1	60.9	8.53	ND	8.4	36.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			8.4						9.0			ND	ND	ND	ND			
15	9.4	60.9	8.32	ND	8.1	34.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.9			6.3						9.0			ND	ND	ND	ND			
16	10.0	61.2	8.25	ND	8.1	36.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			6.4						8.9			ND	ND	ND	ND			
17	9.9	60.8	8.05	ND	7.8	38.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.9			8.4						9.1			ND	ND	ND	ND			
18	9.9	59.4	8.11	ND	7.9	34.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9	2.5	5.0	8.0			8.1	0.2	0.9		10	32	9.2	15,15	ND	ND	ND	ND				
19	9.6	60.4	8.16	ND	8.4	35.9	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			5.6						9.2			ND	ND	ND	ND			
20	9.7	60.0	8.50	ND	8.7	34.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.1			8.2						9.0			ND	ND	ND	ND			
21	9.8	60.3	8.39	ND	9.0	37.0	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.1			7.8						9.3			ND	ND	ND	ND			
22	9.4	59.5	8.13	ND	9.1	33.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.9			8.2						9.1			ND	ND	ND	ND			
23	9.7	59.9	7.66	ND	9.2	37.4	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.0			9.3						9.2			ND	ND	ND	ND			
24	9.5	59.2	7.07	ND	9.2	33.4	6.0	6.0	6.7	6.7	5.9	6.9	5.9	2.5	4.0	8.1			7.0	0.2	0.7		11	36	9.1	4,5	ND	ND	ND	ND				
25	9.3	49.4	6.82	ND	9.2	37.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.1			10.6						9.2			ND	ND	ND	ND			
26	8.3	58.2	6.58	ND	9.1	35.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.1			7.8						9.1			ND	ND	ND	ND			
27	8.4	58.4	6.68	ND	9.0	39.4	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			9.1						9.1			ND	ND	ND	ND			
28	8.8	58.4	6.44	ND	8.8	38.0	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.9			9.7						9.1			ND	ND	ND	ND			
29	8.7	58.5	6.33	ND	8.5	36.8	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.1			8.3						9.2			ND	ND	ND	ND			
30	9.3	58.2	6.27	ND	8.4	37.8	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.9			10.0						9.4			ND	ND	ND	ND			
31							6.0	6.0	6.7	6.7	5.9	6.9	5.9																ND	ND	ND	ND		
Ave	9.7	59.8	7.9	ND	8.5	40.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9	2.5	3.3	7.8	3.4	1.4	7.8	0.2	1.0	0.0	11.3	36.3	8.9	11.4						30 D GM		
Max	10.5	62.8	8.6	ND	9.2	61.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9	2.5	5.0	8.1	3.4	1.4	10.6	0.2	1.2	0.0	14.0	40.0	9.4	29.4						7 D GM Max		
Min	8.3	46.7	6.3	ND	7.8	33.4	6.0	6.0	6.7	6.7	5.9	6.9	5.9	2.5	2.0	7.1	3.4	1.4	5.4	0.2	0.7	0.0	10.0	32.0	8.4									

ND = No Discharge

City of Logan
Monthly Operational Report
WASTEWATER TREATMENT FACILITY

Jim Harps Permits & Analysis Manager

December 2009

Name	Title																										Month	Year																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
	Lagoons - Hdworks Influent		Lagoons - Eff		Wetlands - 002 Effluent		Depth of Water in Cells (ft)								Analytical Results - Wetlands - 002								001A				001B																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	Rate (MGD)	TEMP (°F)	Rate (MGD)	Rate (MGD)	Rate (MGD)	TEMP (°F)																	BOD ₅ (mg/L)	TSS (mg/L)	pH	Copper (ug/L)	Lead (ug/L)	DO (mg/L)	NH ₃ (mg/L)	Total P (mg/L)	O & G (mg/L)	BOD ₅ (mg/L)	TSS (mg/L)	pH	E-Coli		BOD ₅ (mg/L)	TSS (mg/L)	pH	E-Coli																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
							Eff No./100 mL	Eff No./100 mL	Eff No./100 mL	Eff No./100 mL																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
Date							A1	A2	B1	B2	C	D	E																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												

ND = No Discharge

City of Logan
Monthly Operational Report
WASTEWATER TREATMENT FACILITY

Jim Harps Permits & Analysis Manager

January 2010

Name		Title		Month																								Year													
				Lagoons - Hdworks				Lagoons - Eff		Wetlands - 002		Depth of Water in Cells (ft)												Analytical Results - Wetlands - 002								001A				001B					
				Influent		001A	001B	Effluent		BOD ₅														TSS		pH				Copper		Lead		DO		NH ₃		Total P		O & G	
Rate (MGD)	TEMP (°F)	Rate (MGD)	Rate (MGD)	Rate (MGD)	TEMP (°F)	A1	A2	B1	B2	C	D	E	(mg/L)	(mg/L)		(ug/L)	(ug/L)	(mg/L)	(mg/L)					(mg/L)	(mg/L)			Eff No./100 mL	(mg/L)	(mg/L)			Eff No./100 mL								
1		8.2	54.1	7.00	ND	12.6	33.9	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			5.1							8.2			ND	ND	ND	ND								
2		8.6	54.6	6.95	ND	11.6	33.0	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			8.2							8.2			ND	ND	ND	ND								
3		8.4	53.9	6.75	ND	7.2	36.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.0			5.7							8.2			ND	ND	ND	ND								
4		8.9	53.7	7.23	ND	7.8	34.7	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			7.7							8.1			ND	ND	ND	ND								
5		9.1	36.8	6.89	ND	8.6	32.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.2			7.7							8.1			ND	ND	ND	ND								
6		9.1	54.6	6.80	ND	9.1	33.1	6.0	6.0	6.7	6.7	5.9	6.9	5.9	2.5	9.0	7.5	4.8	1.2	5.6	8.7	3.3		16	37	8.0	1,0.5		ND	ND	ND	ND									
7		8.7	52.8	6.94	ND	8.9	32.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			5.2							8.0			ND	ND	ND	ND								
8		8.6	53.3	7.15	ND	8.8	32.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			6.2							8.0			ND	ND	ND	ND								
9		8.9	52.6	7.29	ND	8.2	32.8	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			5.6							7.9			ND	ND	ND	ND								
10		8.5	52.8	6.68	ND	8.0	32.8	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.4			8.9							8.0			ND	ND	ND	ND								
11		9.1	54.2	6.96	ND	8.4	32.8	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			7.3							7.9			ND	ND	ND	ND								
12		9.1	52.2	7.14	ND	8.5	32.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.1			6.1							7.9			ND	ND	ND	ND								
13		9.0	54.2	6.95	ND	9.4	32.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9	8.0	11.0	7.5			8.5	10.9	4.0		16	34	7.9	10,10		ND	ND	ND	ND									
14		9.0	53.8	6.66	ND	12.1	33.3	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			5.3							7.9			ND	ND	ND	ND								
15		8.9	52.8	6.82	ND	13.9	34.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			6.0							7.9			ND	ND	ND	ND								
16		8.7	51.5	6.92	ND	11.9	32.3	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			6.5							7.8			ND	ND	ND	ND								
17		8.2	47.0	6.90	ND	12.5	34.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			6.3							7.8			ND	ND	ND	ND								
18		9.3	53.8	6.80	ND	11.6	37.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			8.2							7.8			ND	ND	ND	ND								
19		10.0	51.6	6.86	ND	15.7	34.7	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.9			7.6							8.0			ND	ND	ND	ND								
20		9.6	55.3	6.82	ND	10.5	33.4	6.0	6.0	6.7	6.7	5.9	6.9	5.9	10.0	8.0	7.9			5.5	11.4	4.0		21	36	7.7	290, 300		ND	ND	ND	ND									
21		9.7	53.1	7.20	ND	11.1	32.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			7.4							7.8			ND	ND	ND	ND								
22		9.8	53.4	7.40	ND	12.0	38.9	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			6.3							7.8	0.5,0.5,0.5,0.5		ND	ND	ND	ND								
23		9.6	53.2	7.43	ND	11.8	35.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.9			6.8							7.9			ND	ND	ND	ND								
24		9.0	51.9	7.37	ND	11.1	32.9	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.9			6.8							7.8			ND	ND	ND	ND								
25		9.6	53.0	7.50	ND	11.1	33.1	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.8			6.5							7.8			ND	ND	ND	ND								
26		10.6	53.1	7.50	ND	11.2	32.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			8.4							7.8			ND	ND	ND	ND								
27		9.4	52.1	7.48	ND	11.4	32.1	6.0	6.0	6.7	6.7	5.9	6.9	5.9	2.5	6.0	7.7			8.9	4.3	2.7		22	37	7.8	0.5,0.5		ND	ND	ND	ND									
28		9.3	51.6	7.55	ND	11.3	32.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.9			6.2							7.8			ND	ND	ND	ND								
29		9.1	53.2	7.55	ND	11.3	33.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			5.3							7.8			ND	ND	ND	ND								
30		9.0	53.6	7.73	ND	11.3	34.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.9			5.8							7.9			ND	ND	ND	ND								
31		8.9	53.2	7.50	ND	11.4	33.0	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			5.9							7.9			ND	ND	ND	ND								
Ave		9.1	52.5	7.1	ND	10.7	33.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9	5.8	8.5	7.7	4.8	1.2	6.7	8.8	3.5	0.0	18.8	36.0	7.9	2.53						30 D GM								
Max		10.6	55.3	7.7	ND	15.7	38.9	6.0	6.0	6.7	6.7	5.9	6.9	5.9	10.0	11.0	8.8	4.8	1.2	8.9	11.4	4.0	0.0	22.0	37.0	8.2	10						7 D GM Max								
Min		8.2	36.8	6.7	ND	7.2	32.1	6.0	6.0	6.7	6.7	5.9	6.9	5.9	2.5	6.0	7.2	4.8	1.2	5.1	4.3	2.7	0.0	16.0	34.0	7.7															

ND = No Discharge

City of Logan
Monthly Operational Report
WASTEWATER TREATMENT FACILITY

Jim Harps Permits & Analysis Manager

February 2010

Name		Title					Month		Year																						
Date	Lagoons - Hdworks Influent		Lagoons - Eff 001A		Wetlands - 002 Effluent		Depth of Water in Cells (ft)							Analytical Results - Wetlands - 002								001A				001B					
	Rate (MGD)	TEMP (°F)	Rate (MGD)	Rate (MGD)	Rate (MGD)	TEMP (°F)	A1	A2	B1	B2	C	D	E	BOD ₅ (mg/L)	TSS (mg/L)	pH	Copper (ug/L)	Lead (ug/L)	DO (mg/L)	NH ₃ (mg/L)	Total P (mg/L)	O & G (mg/L)	BOD ₅ (mg/L)	TSS (mg/L)	pH	E-Coli	BOD ₅ (mg/L)	TSS (mg/L)	pH	E-Coli	
																										Eff No./100 mL				Eff No./100 mL	
1	9.4	54.1	7.04	ND	11.3	35.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			6.3							7.8		ND	ND	ND	ND
2	9.3	52.9	7.25	ND	11.5	33.8	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			9.0							7.8		ND	ND	ND	ND
3	9.3	53.1	7.25	ND	11.4	36.9	6.0	6.0	6.7	6.7	5.9	6.9	5.9	8.0	4.0	7.7	4.6	0.3	5.8	5.4	2.8		30	36	7.8	0.5, 0.5	ND	ND	ND	ND	
4	9.1	53.0	7.01	ND	11.3	35.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			7.0						7.8		ND	ND	ND	ND	
5	9.1	51.8	7.38	ND	11.2	33.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			5.2						7.8		ND	ND	ND	ND	
6	9.6	52.1	7.48	ND	11.3	33.9	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			5.3						7.9		ND	ND	ND	ND	
7	8.9	52.8	7.28	ND	11.4	35.8	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.9			5.8						8.0		ND	ND	ND	ND	
8	9.5	52.7	7.03	ND	11.3	34.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			5.0						7.8		ND	ND	ND	ND	
9	9.5	52.6	7.25	ND	11.3	34.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			5.3						7.8		ND	ND	ND	ND	
10	9.6	51.0	7.26	ND	11.2	35.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9	2.5	12.0	7.8			5.4	5.9	2.9		28	33	7.8	0.5, 0.5	ND	ND	ND	ND	
11	9.5	37.2	7.30	ND	11.2	34.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.9			5.4						7.8		ND	ND	ND	ND	
12	9.3	37.7	7.35	ND	11.2	33.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.0			5.8						7.8		ND	ND	ND	ND	
13	9.2	51.4	7.28	ND	11.3	34.1	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			5.6						7.8		ND	ND	ND	ND	
14	8.5	51.6	7.12	ND	11.6	35.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			5.5						7.7		ND	ND	ND	ND	
15	9.7	53.4	7.29	ND	11.7	34.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			5.1						7.8		ND	ND	ND	ND	
16	9.6	52.3	7.04	ND	11.7	35.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			5.0						7.7		ND	ND	ND	ND	
17	9.9	52.7	7.29	ND	11.7	32.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9	10.0	9.0	8.3			8.6	4.5	2.5		31	34	7.8	0.5, 0.5	ND	ND	ND	ND	
18	9.7	53.5	7.23	ND	11.9	34.9	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			5.0						7.8		ND	ND	ND	ND	
19	9.6	52.2	7.32	ND	11.8	35.9	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.0			7.2						7.7		ND	ND	ND	ND	
20	9.6	46.8	7.48	ND	11.8	36.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			5.2						7.7		ND	ND	ND	ND	
21	9.1	51.5	7.76	ND	11.5	36.1	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			5.2						7.8		ND	ND	ND	ND	
22	9.5	53.3	7.38	ND	11.3	36.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			5.3						7.8		ND	ND	ND	ND	
23	9.4	53.9	7.09	ND	10.8	35.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.5			5.1						7.7		ND	ND	ND	ND	
24	9.6	51.9	7.12	ND	10.6	33.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9	14.0	12.0	7.6			5.7	5.8	2.8		36	32	7.7	90, 71	ND	ND	ND	ND	
25	9.5	52.6	7.09	ND	10.8	37.4	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			5.1						7.8		ND	ND	ND	ND	
26	9.4	52.8	7.30	ND	10.9	35.9	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			5.2						7.7		ND	ND	ND	ND	
27	9.3	52.1	7.29	ND	11.2	35.9	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.6			5.3						7.7		ND	ND	ND	ND	
28	9.1	52.0	7.17	ND	11.1	34.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			7.4						7.8		ND	ND	ND	ND	
29							6.0	6.0	6.7	6.7	5.9	6.9	5.9																		
30							6.0	6.0	6.7	6.7	5.9	6.9	5.9																		
31							6.0	6.0	6.7	6.7	5.9	6.9	5.9																		
Ave	9.4	51.3	7.3	ND	11.3	35.0	6.0	6.0	6.7	6.7	5.9	6.9	5.9	8.6	9.3	7.8	4.6	0.3	5.8	5.4	2.8	0.0	31.3	33.8	7.8	1.8					30 D GM
Max	9.9	54.1	7.8	ND	11.9	37.4	6.0	6.0	6.7	6.7	5.9	6.9	5.9	14.0	12.0	8.3	4.6	0.3	9.0	5.9	2.9	0.0	36.0	36.0	8.0	80					7 D GM Max
Min	8.5	37.2	7.0	ND	10.6	32.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9	2.5	4.0	7.5	4.6	0.3	5.0	4.5	2.5	0.0	28.0	32.0	7.7						

ND = No Discharge

City of Logan
Monthly Operational Report
WASTEWATER TREATMENT FACILITY

Jim Harps Permits & Analysis Manager

March 2010

Name	Title																				Month	Year									
	Lagoons - Hdworks		Lagoons - Eff		Wetlands - 002		Depth of Water in Cells (ft)							Analytical Results - Wetlands - 002								001A				001B					
	Influent		001A	001B	Effluent																	001A				001B					
	Date	Rate (MGD)	TEMP (°F)	Rate (MGD)	Rate (MGD)	Rate (MGD)	TEMP (°F)	A1	A2	B1	B2	C	D	E	BOD ₅ (mg/L)	TSS (mg/L)	pH	Copper (ug/L)	Lead (ug/L)	DO (mg/L)	NH ₃ (mg/L)	Total P (mg/L)	O & G (mg/L)	BOD ₅ (mg/L)	TSS (mg/L)	pH	E-Coli Eff No./100 mL	BOD ₅ (mg/L)	TSS (mg/L)	pH	E-Coli Eff No./100 mL
1	9.9	53.3	6.50	ND	11.6	37.8	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			7.5							7.7		ND	ND	ND	ND
2	10.0	53.3	7.35	ND	9.9	41.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			5.0							7.7		ND	ND	ND	ND
3	10.2	51.9	6.96	ND	11.1	35.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9	14.0	10.0	7.8	6.8	0.25	6.1	7.3	3.8		44	30	7.7	0.5, 0.5	ND	ND	ND	ND	
4	10.5	53.3	6.45	ND	11.6	38.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			5.5							7.7		ND	ND	ND	ND
5	11.9	68.6	6.10	ND	12.9	36.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.1			9.4							7.8		ND	ND	ND	ND
6	11.4	53.2	5.73	ND	13.1	34.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			8.5							7.7		ND	ND	ND	ND
7	10.9	52.0	5.55	ND	13.0	39.8	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			5.1							7.7		ND	ND	ND	ND
8	11.6	51.7	5.03	ND	12.7	37.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.8			7.8							7.8		ND	ND	ND	ND
9	11.5	54.7	4.97	ND	12.8	37.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.8			9.8							7.8		ND	ND	ND	ND
10	11.2	53.4	4.69	ND	12.4	34.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9	14.0	10.0	8.1	6.6	0.25	5.5	8.2	3.4		36	26	7.7	0.5, 0.5	ND	ND	ND	ND	
11	10.9	54.5	4.43	ND	11.6	40.0	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.0			6.3							7.7		ND	ND	ND	ND
12	10.7	53.9	3.63	ND	8.9	37.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.7			7.2							7.7		ND	ND	ND	ND
13	10.6	52.2	3.28	ND	8.4	39.8	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.9			5.6							7.7		ND	ND	ND	ND
14	9.5	52.7	2.82	ND	8.5	37.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9			7.9			7.2							7.7		ND	ND	ND	ND
15	10.2	53.2	2.99	ND	9.1	38.9	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.2			8.5							7.7		ND	ND	ND	ND
16	10.3	55.4	3.16	ND	9.0	40.1	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.2			8.4							7.9		ND	ND	ND	ND
17	10.1	52.6	3.39	ND	8.9	34.8	6.0	6.0	6.7	6.7	5.9	6.9	5.9	12.0	12.0	7.9			5.5	9.3	3.2		31	23	7.7	0.5, 0.5	ND	ND	ND	ND	
18	10.2	53.6	3.70	ND	8.8	38.1	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.0			7.6							7.9		ND	ND	ND	ND
19	9.9	54.5	3.83	ND	8.5	35.8	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.3			5.4							7.9		ND	ND	ND	ND
20	9.8		3.97	ND	8.1	39.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.3			8.3							7.9		ND	ND	ND	ND
21	9.5	53.0	4.16	ND	8.1	40.1	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.2			8.5							8.0		ND	ND	ND	ND
22	10.6	53.5	4.48	ND	8.3	41.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.5			7.4							7.8		ND	ND	ND	ND
23	10.3	54.8	4.63	ND	8.4	40.0	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.2			7.5							8.0		ND	ND	ND	ND
24	10.0	55.1	4.68	ND	8.4	39.0	6.0	6.0	6.7	6.7	5.9	6.9	5.9	8.0	8.0	8.3			5.0	8.2	2.7		27	31	8.0	0.5, 0.5	ND	ND	ND	ND	
25	10.3	55.7	5.00	ND	8.5	42.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.3			6.9							8.0		ND	ND	ND	ND
26	10.3	55.1	5.06	ND	8.5	39.8	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.1			7.6							8.0		ND	ND	ND	ND
27	9.9	53.6	5.00	ND	8.4	48.4	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.1			8.8							8.1		ND	ND	ND	ND
28	9.2	53.8	5.25	ND	8.4	55.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.2			8.2							8.2		ND	ND	ND	ND
29	10.3	55.0	5.48	ND	8.6	46.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.1			6.8							8.2		ND	ND	ND	ND
30	10.2	54.0	5.42	ND	8.5	44.8	6.0	6.0	6.7	6.7	5.9	6.9	5.9			8.3			8.8							8.2		ND	ND	ND	ND
31	10.5	53.6	5.93	ND	8.8	40.2	6.0	6.0	6.7	6.7	5.9	6.9	5.9	6.0	12.0	7.9			6.1	6.5	2.4		24	31	8.3	0.5, 0.5	ND	ND	ND	ND	
Ave	10.4	54.2	4.8	ND	9.8	39.8	6.0	6.0	6.7	6.7	5.9	6.9	5.9	10.8	10.4	8.1	6.7	0.25	7.1	7.9	3.1		32.4	28.2	7.9	0.5				30 D GM	
Max	11.9	68.6	7.3	ND	13.1	55.6	6.0	6.0	6.7	6.7	5.9	6.9	5.9	14.0	12.0	8.8	6.8	0.25	9.8	9.3	3.8		44.0	31.0	8.3	0.5				7 D GM Max	
Min	9.2	51.7	2.8	ND	8.1	34.5	6.0	6.0	6.7	6.7	5.9	6.9	5.9	6.0	8.0	7.7	6.6	0.25	5.0	6.5	2.4		24.0	23.0	7.7						

ND = No Discharge