



**Monthly Report of Operation  
Vertical Loop Reactor  
Wastewater Treatment Plant**  
State Form 53341 (R / 11-08)

Name of Facility Clay Township Regional Waste District			Permit Number IN0055760	
Month April	Year 2009	Plant Design Flow 2.55 mgd	Telephone Number (317) 873-0564	
Facility's e-mail address (if available): scot@ctrwd.org				
Certified Operator: Name Scot S. Watkins		Class III	Certificate Number WW018132	Expiration Date 6/30/2010

Day Of Month	Day of Week	Man-Hours at Plant (Plants less than 1 MGD only)	Air Temperature (optional)	Total=	Bypass At Plant Site ("x" if Occurred)	Collection System Overflow ("x" if Occurred)	CHEMICALS USED			RAW SEWAGE								
				Precipitation - Inches 6.64			Chlorine - Lbs	Liquid Alum - Gallons	Lbs or Gal	Influent Flow Rate (if metered) MGD	pH	CBOD5 - mg/l	CBOD5 - lbs	Susp. Solids - mg/l	Susp. Solids - lbs	Phosphorus - mg/l	Ammonia - mg/l	
1	Wed		60	0.01				100		1.811	7.5	89	1344.2	74	1117.7	5.3	21.7	
2	Thu		62	0.56				90		2.098	7.5	109	1907.2	86	1504.8	5.69	20.4	
3	Fri		58	0.29				70		2.323	7.5	164	3177.3	86	1666.1	4.83	14.4	
4	Sat							110		2.026								
5	Sun			1.73				70		3.684								
6	Mon		38	0.08	X	X		80		2.773	7.6	90	2081.4	144	3330.3	5.29	11.2	
7	Tue		45					90		2.342	7.6	76	1484.5	92	1797	5.21	13.8	
8	Wed		50					90		2.088	7.6	131	2281.2	356	6199.4	9.65	13.8	
9	Thu		60					140		2.062	7.5	97	1668.1	50	859.85	5.93	26	
10	Fri		50	0.58				110		2.071	7.6	93	1606.3	84	1450.9	4.87	17.8	
11	Sat							80		2.045								
12	Sun							150		1.884								
13	Mon		51	0.87				140		2.579	7.4	69	1484.1	106	2279.9	6.72	28.3	
14	Tue		50	0.14				130		2.466	7.5	88	1809.8	92	1892.1	4.06	17.9	
15	Wed		50	0.01				150		2.181	7.6	94	1709.8	66	1200.5	4.21	19.8	
16	Thu		64					120		2.177	7.5	117	2124.3	88	1597.7	5.78	19.6	
17	Fri		71					170		2.177	7.4	144	2614.5	328	5955.2	13.58	21.9	
18	Sat							220		1.987								
19	Sun			0.25				180		2.102								
20	Mon		53	0.25				160		2.07	7.5	71	1225.7	136	2347.9	8.01	22.1	
21	Tue		48	0.11				170		1.946	7.5	57	925.09	80	1298.4	6.02	17.9	
22	Wed		60	0.01				170		2.037	7.6	139	2361.4	454	7712.8	8.91	22.9	
23	Thu		71					170		1.96	7.5	92	1503.9	346	5655.9	11.27	25.2	
24	Fri		82					170		1.854	7.5	204	3154.3	220	3401.7	8.87	24.7	
25	Sat							160		1.759								
26	Sun							170		1.645								
27	Mon		85					140		1.806	7.5	253	3810.7	222	3343.8	8.86	23.3	
28	Tue		67	1.24				293		2.399	7.4	241	4821.8	246	4921.9	7.92	19.4	
29	Wed		68	0.09				293		2.176	7.6	169	3067	176	3194	5.33	19	
30	Thu		72	0.42				293		2.571	7.5	186	3988.2	130	2787.5	5.03	17.5	
Average								149.3		2.16997		126	2279.6	166	2978	6.879	19.94	
Maximum				1.73				293		3.684	7.6	253	4821.8	454	7712.8	13.58	28.3	
Minimum								70		1.645	7.4	57	925.09	50	859.85	4.06	11.2	
No. of Data				16	1	1		0	30	0	30	22	22	22	22	22	22	0

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 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.

Signature of Certified Operator	Date (month, day, year)
Signature of principal executive officer or authorized agent	Date (month, day, year)

**Monthly Report of Operation  
Vertical Loop Reactor  
Wastewater Treatment Plant**

State Form 53341 (R / 11-08)

Name of Facility: Clay Township Regional Waste D  
Permit Number: IN0055760  
For Month Of: April  
Year: 2009

Signature of Certified Operator  
Date (month, day, year)

Signature of principal executive officer or authorized agent  
Date (month, day, year)

Day Of Month	Temperature in Reactors	REACTOR # 1				REACTOR # 2				REACTOR DATA				RETURN SLUDGE		FINAL EFFLUENT				
		Settleable Solids % in 30 minutes	Susp. Solids - mg/l	Sludge Vol. Index - ml/gm	Dissolved Oxygen - mg/l	Settleable Solids % in 30 minutes	Susp. Solids - mg/l	Sludge Vol. Index - ml/gm	Dissolved Oxygen - mg/l	#1 Reactor ORP mV	#1 Reactor OUR mg/l/min	0	#2 Reactor OUR mg/l/min	Volume - MG	Susp. Solids - mg/l	Residual Chlorine - Contact Tank	Residual Chlorine - Final	E. Coli - colony/100 ml	pH - daily low (or single sample)	pH - daily high (if multiple samples)
1	13.3	39	4560	86	0.2	45	3820	118	1.6	63			0.667	10260			1		7.5	
2	13.5	42	3400	124	0.1	45	3480	129	1.5	66	0.5	0.3	0.776	10220			1		7.6	
3	13.8	52	3280	159	0.1	49	3220	152	2.6	67			0.83	8980			8.6		7.5	
4													0.805							
5													1.48							
6	12.4	77	5800	133	0.3	27	2400	113	3.0	148			1.01	6380			1		7.5	
7	12.4	49	3560	138	0.2	43	3520	122	3.3	122			0.84	9280			1		7.5	
8	12.4	49	3640	135	0.2	38	4080	93	2.8	118			0.84	9740			1		7.6	
9	12.9	46	4020	114	0.1	42	3940	107	1.7	94	0.31	0.3	0.74	9460			1		7.5	
10	13.3	40	3460	116	0.1	44	3560	124	1.7	98			0.83	9700			1		7.6	
11													0.81							
12													0.77							
13	13.2	57	4700	121	0.1	55	4080	135	1.7	-22			0.911	8720			1		7.5	
14	13.1	45	3560	126	0.1	39	3740	104	2.5	-109			0.871	10780			1		7.5	
15	13	54	3700	146	0.1	52	3320	157	1.8	-125			0.755	11360			2		7.5	
16	13.1	46	3560	129	0.1	40	3300	121	1.8	-155	0.6	0.4	0.78	10260			1		7.4	
17	13.5	46	3460	133	0.1	44	3200	138	1.4	-164			0.71	9540			4		7.3	
18													0.79							
19													0.85							
20	14.3	46	3440	134	0.1	50	3360	149	0.9	-250			0.75	9840			1		7.4	
21	13.9	35	3360	104	0.1	38	3140	121	1.6	-228			0.64	10260			1		7.4	
22	13.5	33	3940	84	0.1	35	3400	103	2.0	-156			0.68	11640			1		7.4	
23	13.6	41	4200	98	0.1	36	3900	92	2.2	-198			0.66	13060			3		7.3	
24	14.2	37	3480	106	0.1	35	3200	109	2.0	-225			0.71	10240			3		7.3	
25													0.61							
26											0.52	0.3	0.57							
27	15.5	45	3520	128	0.1	39	3200	122	1.5	-273			0.64	9620			1		7.4	
28	15.7	30	3460	87	0.1	31	3240	96	2.1	-291			0.83	8700			3		7.4	
29	15	30	3280	91	0.1	30	2840	106	2.0	-190			0.75	9840			1		7.3	
30	15	26	2900	90	0.1	28	2980	94	2.2	-201			0.82	9200			1		7.3	
Avg.	13.7	44	3740	117	0.127	40	3405	118	1.999		0	0.298	1	9867.3			1			
Max.	15.7	77	5800	159	0.32	55	4080	157	3.25		0.6	0.37	1.48	13060			8.6		7.6	
Min.	12.4	26	2900	84	0.09	27	2400	92	0.94		0.31	0.25	0.57	6380			1		7.3	
Data	22	22	22	22	22	22	22	22	22	22	4	0	4	30	22	0	0	22	22	

Comments for the Month (major repairs, breakdowns, process upsets and their causes, inplant treatment process bypass, etc.):  
1. 4/5 to 4/6 Plant in Storm Mode. 2. Collections system overflow occurred 04/06/09. An overflow report was faxed. 3. Plant site overflow occurred 04/06/09. An overflow report was faxed.

<b>Monthly Report of Operation</b> <b>Vertical Loop Reactor</b> <b>Wastewater Treatment Plant</b> State Form 53341 (R / 11-08)				Signature of Certified Operator		Date (month, day, year)
				Signature of principal executive officer or authorized agent		Date (month, day, year)
Name of Facility Clay Township Regional Waste District		Permit Number IN0055760	For Month Of: April	Year 2009		

		FINAL EFFLUENT															
Day Of Month	Day of Week	Flow		Dissolved Oxygen - mg/l	Phosphorus - mg/l	BOD				Total Suspended Solids				Ammonia			
		Effluent Flow Rate (MGD)	Effluent Flow Weekly Average			CBOD5 - mg/l	CBOD5 - mg/l Weekly Average	CBOD5 - lbs	CBOD5 - lbs/day Weekly Average	Susp. Solids - mg/l	Susp. Solids - mg/l Weekly Average	Susp. Solids - lbs	Susp. Solids - lbs/day Weekly Average	Ammonia - mg/l	Ammonia - mg/l Weekly Average	Ammonia - lbs	Ammonia - lbs/day Weekly Average
1	Wed	2.092		7.91	0.71	1.87		32.646		5.7		99.509		0.1		1.7458	
2	Thu	6.673		7.72	0.97	1.12		62.369		4.8		267.29		0.1		5.5686	
3	Fri	2.536		7.95	0.92	1.2		25.396		4.6		97.349		0.1		2.1163	
4	Sat	2.206	2.86286				1.868		42.748		6.24		151.18		0.1		2.6115
5	Sun	4.004															
6	Mon	3.004		7.95	1.17	2.39		59.913		8.1		203.05		0.27		6.7685	
7	Tue	2.554		8.47	1.29	1.52		32.396		5.7		121.48		0.1		2.1313	
8	Wed	2.339		8.21	1.72	1.87		36.5		7.4		144.44		0.1		1.9519	
9	Thu	2.23		8.19	1.92	2.02		37.591		7.7		143.29		0.1		1.8609	
10	Fri	2.406		8.08	1.86	1.32		26.503		8		160.62		0.1		2.0078	
11	Sat	2.231	2.68114				1.824		38.581		7.38		154.58		0.134		2.9441
12	Sun	2.021															
13	Mon	2.822		7.78	1.22	1.19		28.024		7.5		176.62		0.1		2.355	
14	Tue	2.825		7.83	1.04	1.45		34.183		7		165.02		0.2		4.7149	
15	Wed	2.381		7.7	1.25	1.37		27.221		4.4		87.426		0.48		9.5373	
16	Thu	2.318		7.91	1.41	1.15		22.245		4.4		85.112		1.11		21.472	
17	Fri	2.251		7.76	1.65	1.15		21.602		5.1		95.801		1.58		29.68	
18	Sat	2.198	2.40229				1.262		26.655		5.68		122		0.694		13.552
19	Sun	2.469															
20	Mon	2.356		8.36	0.18	1.36		26.739		5.9		116		1.4		27.525	
21	Tue	2.27		7.85	0.67	1.29		24.437		5.7		107.98		1.39		26.331	
22	Wed	2.288		7.93	0.58	1.18		22.53		7		133.65		1.12		21.385	
23	Thu	2.172		8.12	0.87	1.41		25.557		6.2		112.38		1.71		30.994	
24	Fri	2.176		7.93	1.04	2.81		51.026		7		127.11		1.2		21.79	
25	Sat	2.021	2.25029				1.61		30.058		6.36		119.42		1.364		25.605
26	Sun	1.861															
27	Mon	2.05		8.21	1.16	5.33		91.182		10.7		183.05		1.94		33.188	
28	Tue	2.722		7.88	0.77	3.64		82.683		5.4		122.66		2.16		49.065	
29	Wed	2.465		8.25	0.23	2.11		43.404		6.6		135.76		0.23		4.7312	
30	Thu	2.816	2.3828	7.7	0.21	2.77	3.276	65.094	70.59	5	6.42	117.5	139.74	0.29	0.944	6.8149	23.45
Avg		2.55857		7.9859	1.0382	1.8873		39.965		6.3591		136.51		0.7218		14.261	
Max		6.673	2.86286	8.47	1.92	5.33	3.276	91.182	70.59	10.7	7.38	267.29	154.58	2.16	1.364	49.065	25.605
Min		1.861	2.25029	7.7	0.18	1.12	1.262	21.602	26.655	4.4	5.68	85.112	119.42	0.1	0.1	1.7458	2.6115
Data		30	5	22	22	22	5	22	5	22	5	22	5	22	5	22	5

MONTHLY REMOVAL SUMMARY					Total Monthly Flow:	
	BOD5	S.S.	Ammonia	Phosphorus	(million gallons)	76.757
Percent Removal	99	96	96	84.9		
					Percent Capacity	
					(actual flow/design)	100%

<b>Monthly Report of Operation</b> <b>Vertical Loop Reactor</b> <b>Wastewater Treatment Plant</b> State Form 53341 (R / 11-08)				Signature of Certified Operator		Date (month, day, year)		
Name of Facility		Permit Number	For Month Of:	Year	Signature of principal executive officer or authorized agent		Date (month, day, year)	
Clay Township Regional Waste District		IN0055760	April	2009				

Day Of Month	SLUDGE TO DIGESTER				DIGESTER OPERATION												
	Waste Act. Sludge Gal. x 1000	Anaerobic Only			Supernatant Withdrawn hrs. or Gal. x 1000	Supernatant BOD5 mg/l or NH3-N mg/l	Total Solids in Incoming Sludge - %	Total Solids in Digested Sludge - %	Volatile Solids in Incoming Sludge - %	Volatile Solids in Digested Sludge - %	Digested Sludge Withdrawn hrs. or Gal. x 1000						
		pH	Gas Production Cubic Ft. x 1000	Temperature - F													
1	40					1.2	16.6	74	75	38							
2	40					1.1	15.6	74	76	39							
3	44					1.1	16.3	75	75	39							
4					30												
5					40												
6	41					0.7	16.6	70	75	38							
7	44					1	17.1	72	75	42							
8					3		17.6		74	46							
9	40					1	15.9	71	75	44							
10																	
11					25												
12																	
13	40					1.1	17.5	72	74	48							
14	42					1.2	17.8	73	73	47							
15	42					1.3		73									
16	38					1.1	18	72	69	45							
17	57					1.1	17.9	72	73	46							
18					66												
19					82												
20	41					1.1	17.3	71	72	42							
21	49					1.1	13.7	72	66	40							
22	40						16.3		69	42							
23	39				48	1.2	14.9	72	66	40							
24						1.1	16.8	72	65	40							
25	40				24												
26	39				24												
27	41				17	1.1	17.2	72	71	42							
28	44				18	1	17.6	72	71	45							
29	43				18	1		72									
30	134				18	1		72									
Avg.	46.571				31.769	1.0789	16.706	72.263	71.889	42.389							
Max.	134				82	1.3	18	75	76	48							
Min.	38				3	0.7	13.7	70	65	38							
Data	0	0	0	21	0	0	0	13	0	19	18	19	18	18	18	0	0

Send completed forms by the 28th of the month to:

Indiana Department of Environmental Management  
Office of Water Quality, Mail Code 65-42  
100 North Senate Avenue  
Indianapolis, Indiana 46204-2251