



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

State Form 10829 (R/1-2005)

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Name of Facility Clay Township Regional Waste Dist.			Permit Number IN 0055760		
Month June	Year 2007	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 6/30/2008	

Day Of Month	Day of Week	Man-Hours at Plant (Plants less than 1 MGD only)	Air Temperature	Total= Precipitation - Inches 2.23	Bypass At Plant Site ("x" If Occurred)	Collection System Overflow ("x" If Occurred)	CHEMICALS USED			RAW SEWAGE								
							Chlorine - Lbs	Alum Gal	Lbs or Gal	Influent Flow Rate (MGD)	pH	CBOD5 - mg/l	CBOD5 - lbs	Susp. Solids - mg/l	Susp. Solids - lbs	Phosphorus - mg/l	Ammonia - mg/l	
1	Fri		87	0.04				35	1.568	7.5								
2	Sat							45	1.67									
3	Sun			0.02				30	1.481									
4	Mon		78	0.1		X		55	1.621	7.5								
5	Tue		79	0.07				35	1.538	7.5	274	3514.6	248	3181.1	6.9	27.5		
6	Wed		80					50	1.584	7.4	220	2906.3	236	3117.7	6.62	27		
7	Thu		90					45	1.538	7.5	257	3296.5	208	2668	6.5	28.1		
8	Fri		80	0.12				55	1.655	7.5								
9	Sat							40	1.551									
10	Sun							40	1.473									
11	Mon		85					25	1.554	7.5								
12	Tue		89					55	1.518	7.5	255	3228.3	364	4608.3	6.58	24.8		
13	Wed		90					30	1.506	7.5	228	2863.7	252	3165.1	6.42	25.6		
14	Thu		89					45	1.565	7.4	212	2767	218	2845.4	6.12	23		
15	Fri		89					45	1.552	7.5								
16	Sat							40	1.526									
17	Sun							35	1.532									
18	Mon		90					55	1.539	7.5								
19	Tue		85	0.33				20	1.54	7.4	240	3082.5	208	2671.5	6.38	26.3		
20	Wed		85					65	1.533	7.5	233	2979	236	3017.3	6.41	21		
21	Thu		89					40	1.552	7.4	216	2795.8	226	2925.3	6.28	26.7		
22	Fri		86	0.36				35	1.596	7.5								
23	Sat			0.66				45	1.825									
24	Sun			0.04				50	1.352									
25	Mon		84					55	1.573	7.4								
26	Tue		87	0.44				35	1.599	7.5	193	2573.8	192	2560.4	6.66	22.9		
27	Wed		85					45	1.594	7.4	162	2153.6	112	1488.9	6.66	17.7		
28	Thu		82	0.05				40	1.59	7.4	230	3049.9	222	2943.9	6.11	25.4		
29	Fri		80					40	1.717	7.4								
30	Sat							15	1.592									
Average								41.5	1.5678		227	2934.3	227	2932.7	6.47	24.67		
Maximum								65	1.825	7.5	274	3514.6	364	4608.3	6.9	28.1		
Minimum								15	1.352	7.4	162	2153.6	112	1488.9	6.11	17.7		
No. of Data				11	0	1	0	30	0	30	21	12	12	12	12	12	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)

(SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT) (DATE)

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

Name of Facility: Clay Township Regional Waste D  
Permit Number: IN 0055760  
For Month Of: June  
Year: 2007

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(SIGNATURE OF CERTIFIED OPERATOR) (DATE)  
  
(SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT) (DATE)

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//min	0	#2 Reactor OUR mg//min	Volume - MG	Susp. Solids - mg/l	Residual Chlorine - Contact Tank	Residual Chlorine - Final	E. Coil - colony/100 ml	pH
1	18.3	59			0.2	59			2.6	-106	1.11	#####	0.4	1.561				7.5	
2														1.637					
3														1.438					
4	18.7	82			0.2	80			1.8	-224				1.376				7.6	
5	18.3	81	4520	179	0.2	76	4640	164	2.5	-177				1.381	11860		2	7.6	
6	18.1	72	4320	167	0.2	73	4260	171	2.7	-119				1.457	11660		1	7.6	
7	18.3	72	4020	179	0.2	69	4300	160	2.8	-106				1.482	10720		2	7.6	
8	19.1	75			0.2	69			2.3	-125	1.03	#####	0.4	1.479				7.6	
9														1.48					
10														1.43					
11	18.6	74			0.2	72			2.2	-156				1.39				7.6	
12	18.8	70	4200	167	0.2	65	4220	154	2.8	-122				1.41	10060		2	7.6	
13	19	67	4000	168	0.2	63	4000	158	2.8	-108				1.44	10520		1	7.6	
14	19.3	63	3860	163	0.2	61	3840	159	3.2	-92	0.9	#####	0.4	1.45	10720		4.15	7.6	
15	19.4	57			0.2	54			3.6	-60				1.46				7.6	
16														1.48					
17														1.5					
18	19.7	69			0.2	62			1.8	-155				1.41				7.6	
19	19.9	64	3860	166	0.2	63	3840	164	1.9	-113				1.41	10460		1	7.6	
20	19.5	58	3620	160	0.2	54	3680	147	2.9	-82				1.43	10880		3.1	7.6	
21	19.5	57	3680	155	0.2	53	3540	150	3.2	-79				1.41	9460		1	7.6	
22	19	46			0.2	45			3.3	-72	0.79	#####	0.3	1.49				7.6	
23														1.65					
24														1.35					
25	19.3	61			0.2	58			2.9	-116				1.44				7.6	
26	19.9	59	3540	167	0.1	58	3500	166	2.3	-106				1.43	9560		12.2	7.6	
27	20.1	50	3320	151	0.1	50	3500	143	2.9	-80				1.46	9980		6.3	7.7	
28	20.3	50	3360	149	0.1	47	3360	140	3.3	-67				1.45	9520		4.1	7.6	
29	20.1	45			0.1	45			3.3	-79	0.93	#####	0.3	1.51				7.6	
30														1.42					
Avg.	19.2	63	3858	164	0.175	61	3890	156	2.721		1		0.346	1	10450		2		
Max.	20.3	82	4520	179	0.19	80	4640	171	3.63		1.11		0.42	1.65	11860		12.2	7.7	
Min.	18.1	45	3320	149	0.11	45	3360	140	1.81		0.79		0.29	1.35	9460		1	7.5	
Data	21	21	12	12	21	21	12	12	21	21	5	5	5	30	12	0	0	12	21

Comments for the Month (major repairs, breakdowns, process upsets and their causes, inplant treatment process bypass, etc.):

1. Faxed Bypass / Overflow Incident Report on 06/04/07. (Collection System Overflow)

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

(SIGNATURE OF CERTIFIED OPERATOR) (DATE)

(SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT) (DATE)

Name of Facility: Clay Township Regional Waste Dist. Permit Number: IN 0055760 For Month Of: June Year: 2007

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Day Of Month	FINAL EFFLUENT															
	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	1.315		9.09													
2	1.413															
3	1.316															
4	1.456		9.31													
5	1.301		8.36	0.26	2.44	26.491		3.4	36.913		0.18	1.9542				
6	1.33		8.05	0.24	1.72	19.09		2.6	28.857		0.3	3.3297				
7	1.321		8.35	0.34	1.78	19.622		3.6	39.685		0.1	1.1024				
8	1.385		8.96													
9	1.232	1.33443				1.98	21.734		3.2	35.152		0.1933		2.1288		
10	1.194															
11	1.219		10.64													
12	1.169		9.34	0.5	3.19	31.119		6	58.532		0.1	0.9755				
13	1.173		8.78	0.61	1.8	17.62		2.4	23.493		0.1	0.9789				
14	1.201		8.76	0.7	1.28	12.829		2.7	27.06		0.1	1.0022				
15	1.282		10.2													
16	1.221	1.20843				2.09	20.523		3.7	36.362		0.1		0.9855		
17	1.315															
18	1.254		9.64													
19	1.29		9.05	0.75	2.86	30.788		3.4	36.601		0.1	1.0765				
20	1.205		8.55	0.83	1.87	18.804		3	30.167		0.1	1.0056				
21	1.274		8.85	0.85	1.51	16.054		2.7	28.705		0.1	1.0632				
22	1.408		9.61													
23	1.732	1.354				2.08	21.882		3.0333	31.824		0.1		1.0484		
24	1.231															
25	1.238		9.3													
26	1.328		8.46	0.89	3.03	33.579		4.8	53.194		0.1	1.1082				
27	1.326		8.22	0.85	1.85	20.471		3.8	42.049		0.1	1.1065				
28	1.439		8.19	0.81	1.25	15.011		2	24.017		0.1	1.2008				
29	1.438		8.62													
30	1.405	1.34357				2.0433	23.02		3.5333	39.753		0.1		1.1385		
Avg	1.3137		8.9681	0.6358	2.0483	21.79		3.3667	35.773		0.1233	1.3253				
Max	1.732	1.354	10.64	0.89	3.19	2.09	33.579	23.02	6	3.7	58.532	39.753	0.3	0.1933	3.3297	2.1288
Min	1.169	1.20843	8.05	0.24	1.25	1.98	12.829	20.523	2	3.0333	23.493	31.824	0.1	0.1	0.9755	0.9855
Data	30	4	21	12	12	4	12	4	12	4	12	4	12	4	12	4

MONTHLY REMOVAL SUMMARY					Total Monthly Flow:
	BOD5	S.S.	Ammonia	Phosphorus	(million gallons) 39.411
Percent Removal	99	99	100	90.2	
Phosphorus limit would be 1 mg/l. (compliance achieved)					Percent Capacity (actual flow/design) 52%

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

(SIGNATURE OF CERTIFIED OPERATOR)

(Date)

Name of Facility: Clay Township Regi  
Permit Number: IN 0055760  
For Month Of: June  
Year: 2007

(SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR  
AUTHORIZED AGENT)

(Date)

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Day Of Month	SLUDGE TO DIGESTER		DIGESTER OPERATION											
	Waste Act. Sludge Gal. x 1000	pH	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		
			Gas Production Cubic Ft. x 1000	Temperature - F										
1					46							100		
2					35									
3														
4	47						1.4		75			37		
5	48						1.3		74					
6	44						1.3		75					
7							1.2		75					
8	40				40									
9					42									
10														
11	54						1.1		86					
12	52						1.1		73					
13	31						1.2		73					
14	43						1.2		73					
15					55							87		
16					32							50		
17														
18	52						1.2		74			50		
19	49						1.1		73					
20	40						1.1		74					
21	43						1		73					
22					45							25		
23					39									
24														
25	49						1.1		74					
26	55													
27	39													
28							1.1		73			6		
29					60									
30					24									
Avg.	45.733				41.8		1.1714		74.643			50.714		
Max.	55				60		1.4		86			100		
Min.	31				24		1		73			6		
Data	0	15	0	0	0	10	0	14	0	14	0	7	0	0

Send completed forms by the 28th of the month to:  
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER QUALITY, DATA MANAGEMENT SECTION  
P.O. BOX 6015  
INDIANAPOLIS, INDIANA 46206-6015

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

(SIGNATURE OF CERTIFIED OPERATOR)

Name of Facility: Clay Township Regional Waste Dist.    Permit Number: IN 005760    For Month Of: June    Year: 2007

(SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT)

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Day Of Month	Temperature in Reactors	Orbal #1			Orbal #3									RETURN SLUDGE		Flow Vol.	
		ORP mV	Dissolved Oxygen - mg/L	OUR gm/L/Min	Settleable Solids % in 30 Minutes	Susp. Solids - mg/L	Sludge Vol. Index - mg/gm	Dissolved Oxygen - mg/L	OUR gm/L/min					Volume - MG	Susp. Solids - mg/L	Orbal Influent Flow - MGD	
1	19.2	150	0.14		70			1.3	0.91					0.961		0.971	
2														0.999		1.034	
3														0.87		0.897	
4	19.2	192	0.13		80			1.3						0.818		0.915	
5	18.6	122	0.14		79	4100	193	1.3						0.86	2400	0.891	
6	18.3	104	0.14		70	4060	172	1.4						0.906	4560	0.986	
7	18.8	85	0.14		67	3700	181	0.1						0.891	1680	1.024	
8	20.1	26	0.14		67			1.4	0.31					0.91		1.015	
9														0.885		0.961	
10														0.863		0.934	
11	19.1	141	0.16		68			1.4						0.862		0.967	
12	19.5	59	0.16		63	3760	168	1.5						0.889	2160	0.981	
13	19.7	34	0.17		59	3540	167	2.3						0.898	4300	0.979	
14	20.1	24	0.15		55	3520	156	1.7	0.33					0.915	4520	0.978	
15	20.1	229	0.15		59			2.2						0.861		0.967	
16														0.894		0.984	
17														0.905		0.988	
18	20.7	64	0.16		67			1.4						0.886		0.964	
19	20.7	224	0.15		62	3680	168	1.4						0.881	4860	0.964	
20	20.1	225	0.14		57	3560	160	2.1						0.896	2880	0.962	
21	20.1	142	0.16		50	3320	151	2.4						0.879	3500	0.956	
22	20.5	240	0.16		49			2.7	0.24					0.877		0.98	
23														0.951		1.07	
24														0.831		0.834	
25	19.8	197	0.14		60			1.4						0.896		0.932	
26	20.7	46	0.18		55	3420	161	0.9						0.898	5040	0.93	
27	20.9	50	0.12		48	3200	150	1.0						0.906	6300	0.92	
28	21.1	175	0.13		44	3140	140	1.0						0.837	2760	0.917	
29	20.7	75	0.11		44			1.0	0.27					0.87		0.986	
30														0.816		0.919	
Avg.	19.905	124	0		60.619	3583	164	1	0.412					0.89	3746.7	0.9602	
Max.	21.1	240	0.18		80	4100	192.68	3	0.91					0.999	6300	1.07	
Min.	18.3	24	0.11		44	3140	140.13	0	0.24					0.816	1680	0.834	
Data	21	21	21	0	21	12	12	21	5	0	0	0	0	30	12	30	0