



**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 January	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)	Precipitation - Inches	Bypass At Plant Site ( 'x' If Occurred)	Collection System Overflow ( 'x' If Occurred)	CHEMICALS USED			RAW SEWAGE														
							Chlorine - Lbs	Liquid Alum - Gallons	Lbs of 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							
29	Mon																							
30	Tue	Fill in December's effluent data on page 3 as necessary for correct weekly average calculations.																						
31	Wed																							
1	Thu		32						120	2.179	7.4	217		212		6.43	25.9							
2	Fri		33						50	2.155	7.4	238		214		5.97	26.3							
3	Sat								100	1.706														
4	Sun		0.01						10															
5	Mon		33	0.01					80		7.5	207		190		6.6	29.1							
6	Tue		35	0.04					60		7.5	255		170		8.51	29.6							
7	Wed		33	0.01					10		7.6	264		185		6.67	28.4							
8	Thu		26						70		7.5	241		212		7.12	32.1							
9	Fri		38						100		7.5	255		192		6.57	32							
10	Sat		0.01						30															
11	Sun								50															
12	Mon		34	0.02					90		7.5	240		256		5.97	32							
13	Tue		36	0.02					0		7.5	244		206		6.95	31.9							
14	Wed		28	0.01					90		7.5	229		76		4.91	32.6							
15	Thu		4						90		7.5	272		226		6.1	32.7							
16	Fri		7						20		7.6	222		150		5.06	28.4							
17	Sat		0.01						30															
18	Sun		0.01						20															
19	Mon		22						0		7.5	224		142		5.67	23.9							
20	Tue		24						0		7.5	229		144		6.38	26.1							
21	Wed		30						100		7.6	333		314		8.86	28.2							
22	Thu		42	0.04					80		7.5	335		306		8.05	30.8							
23	Fri		43	0.01					70		7.6	278		264		8.22	28.7							
24	Sat			0.01					50															
25	Sun			0.01					10															
26	Mon		24	0.01					90		7.6	236		266		7.53	29.3							
27	Tue		24						80		7.5	242		212		7.97	30							
28	Wed		25						80		7.5	237		202		7.59	28.7							
29	Thu		26						90		7.6			172		7.18								
30	Fri		28						90		7.5			200		7.76								
31	Sat			0.23					100															
Average									60			250		205		6.912	29.34							
Maximum				0.23					120		7.6	335		314		8.86	32.7							
Minimum									0		7.4	207		76		4.91	23.9							
No. of Data				16	0	0	0	0	31		0	22	0	22	0	22	20	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)											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 D		IN0055760		January		2009													
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	#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	13.2	50	3780	132	0.1	46	3560	129	1.4	40			10540					7.5	
2	1.35	44	3480	126	0.1	42	3200	131	1.4	-47			9560					7.5	
3																			
4										0.42		0.2							
5	13.4	47	3700	127	0.1	45	3640	124	1.7	-97			11360					7.5	
6	13.7	40	3780	106	0.1	41	3380	121	1.2	-76			10500					7.5	
7	13.8	45	3400	132	0.1	44	3520	125	1.3	-57			10380					7.5	
8	13.3	43	3780	114	0.1	44	3780	116	2.2	-28			10660					7.5	
9	13.2	49	3240	151	0.1	46	3200	144	2.6	-34			9900					7.5	
10																			
11										0.48		0.2							
12	13.4	43	3580	120	0.1	42	3560	118	2.2	-78			10980					7.5	
13	13.5	59	3580	165	0.1	52	3320	157	1.9	-41			10260					7.5	
14	12.8	67	3040	220	0.1	67	2820	238	3.1	24			9600					7.5	
15	12.3	49	3080	159	0.2	46	3140	146	1.4	39			9360					7.5	
16	11.8	42	3240	130	0.2	41	3160	130	1.9	70			8580					7.5	
17																			
18										0.48		0.2							
19	12.5	66	3700	178	0.1	65	4880	133	1.6	-3			10340					7.6	
20	12.6	53	4040	131	0.1	48	3700	130	1.3	-84			10700					7.5	
21	12.6	51	4100	124	0.1	48	3850	125	1.3	-66			11680					7.5	
22	12.5	58	3060	190	0.1	58	2500	232	2.1	-6			10640					7.5	
23	13.2	45	3480	129	0.1	43	3280	131	1.2	-51			9460					7.5	
24																			
25										0.41		0.2							
26	12.6	58	4100	141	0.1	50	4060	123	1.5	-80			11820					7.5	
27	12.6	55	4080	135	0.1	50	4020	124	1.9	-40			11220					7.5	
28	12.2	55	4060	135	0.1	53	3880	137	1.8	-24			11240					7.5	
29	12.3	49	3880	126	0.1	47	4140	114	1.7	-41			11140					7.5	
30	12.3	66	4000	165	0.1	61	3940	155	1.6	0			11400					7.6	
31																			
Avg.	12.3	52	3645	143	0.126	49	3570	140	1.752		0	0.205	10515						
Max.	13.8	67	4100	220	0.2	67	4880	238	3.11		0.48	0.22	11820					7.6	
Min.	1.35	40	3040	106	0.12	41	2500	114	1.19		0.41	0.19	8580					7.5	
Data	22	22	22	22	22	22	22	22	22	22	4	4	0	0	0	0	0	22	

Comments for the Month (major repairs, breakdowns, process upsets and their causes, inplant treatment process bypass, etc.):  
Due to Influent composite sampler freezing, the following samples are grab: 1/16/09, 1/20/09, 1/21/09.

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

Day Of Month	Day of Week	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						
29	Mon	2.484				1.91		39.59235				3		62.18694			0.1		2.072898				
30	Tue	2.457				2.21		45.3131				6.7		137.3746			0.1		2.050367				
31	Wed	1.945				2.63		42.6876				3.7		60.05479			0.1		1.623103				
1	Thu			8.03	0.37	1.37						2.6					0.1						
2	Fri			7.95	0.37	2.1						3.4					0.1						
3	Sat																						
4	Sun																						
5	Mon			7.99	0.56	2.4						3.6					0.16						
6	Tue			8.14	0.49	2.73						3.6					0.11						
7	Wed			8.09	0.42	1.81						2.8					0.1						
8	Thu			7.84	0.65	2.39						4.3					0.1						
9	Fri			8.13	0.63	2.21						2.3					0.1						
10	Sat							2.308				3.32					0.114						
11	Sun																						
12	Mon			7.74	0.76	2.08						3					0.1						
13	Tue			7.93	0.51	1.34						2.6					0.1						
14	Wed			7.9	0.68	2.15						1					0.1						
15	Thu			7.94	1.08	2.71						4					0.1						
16	Fri			7.98	0.96	1.55						3.9					0.1						
17	Sat							1.966				2.9					0.1						
18	Sun																						
19	Mon			7.85	1.53	2.7						5.9					0.14						
20	Tue			8.36	1.54	2.69						4.3					0.1						
21	Wed			7.98	0.38	1.7						3.7					0.1						
22	Thu			7.92	0.85	3.11						6					0.1						
23	Fri			8.65	0.76	2.42						4.7					0.1						
24	Sat							2.524				4.92					0.108						
25	Sun																						
26	Mon			8.36	0.54	3.03						6.3					0.1						
27	Tue			8.33	0.35	1.77						2.4					0.1						
28	Wed			8.49	0.39	1.84						3.7					0.1						
29	Thu			8.69	0.53							6.6											
30	Fri			8.91	0.48							5.4											
31	Sat							2.2133				4.88					0.1						
Avg				8.1455	0.6741	2.205						3.9136					0.1055						
Max				8.91	1.54	3.11	2.524					6.6	4.92				0.16	0.114					
Min				7.74	0.35	1.34	1.966					1	2.9				0.1	0.1					
Data		0	0	22	22	20	4	0	0	22	4	0	0	20	4	0	0	0	0	0	0	0	0

MONTHLY REMOVAL SUMMARY					Total Monthly Flow:
	BOD5	S.S.	Ammonia	Phosphorus	(million gallons) 0
Percent Removal	99	98	100	90.2	
Phosphorus limit would be	1 mg/l.	(compliance achieved)			Percent Capacity
					(actual flow/design)

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

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							1.2		76			16			
2							1	17.2	76	74	37				
3					29										
4					54										
5							1.2	16.7	76	77	32				
6							1.2	16.8	76	76	33				
7							1.2	5.6	76	76	30				
8							5.6	16.5	95	76	33				
9							1.1	17.6	76	76	31				
10					119										
11					21										
12							1.2	16.1	76	77	29				
13							1.1	15.6	75	79	30				
14							1.1		75						
15							1	15.8	75	71	31				
16							1		75						
17															
18					87										
19															
20															
21								16.7		77	40				
22							1.2	17.4	76	76	37				
23							1.1	17.4	75	76	38				
24					48										
25															
26							1.3	17.2	76	76	31				
27							1.3		76						
28							1.3	17.6	77	75	44				
29							1.2	17.8	76	90	49				
30							1.3		77						
31					86										
Avg.						63.429	1.4	16.133	76.842	76.8	33.813				
Max.						119	5.6	17.8	95	90	49				
Min.						21	1	5.6	75	71	16				
Data	0	0	0	0	0	0	7	0	19	15	19	15	16	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

**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  
 For Month Of: January  
 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	ORBAL RING #1			ORBAL RING #3				TOTAL RETURN SLUDGE (VLR & ORBAL RETURNS)				RETURN SLUDGE		FLOW VOLUME	
		ORP mV	Dissolved Oxygen - mg/l	OUR - mg/l/min	Dissolved Oxygen - mg/l	Settleable Solids % in 30 minutes	Susp. Solids - mg/l	Sludge Vol. Index - ml/gm	OUR - mg/l/min	Volume - MG				Volume - MG	Susp. Solids - mg/l	Orbal Influent Flow - MGD
1	11.6	-342	0.14	4.8	45	3360	134							3440		
2	11.9	-342	0.17	6.2	44	3340	132							4520		
3																
4								0.0								
5	12.4	-345	0.23	5.9	40	3420	117							3380		
6	12.6	-345	0.19	5.3	41	3380	121							2980		
7	12.8	-345	0.21	5.4	41	3320	123							3840		
8	11.7	-345	0.19	6.2	40	3280	122							2500		
9	11.6	-345	0.2	6.6	42	3140	134							5920		
10																
11								0.0								
12	12	-343	0.23	6.3	40	3300	121							2620		
13	12.4	-345	0.18	6.0	52	3300	158							2680		
14	11.1	-344	0.2	7.1	63	2760	228							2980		
15	10.2	-344	0.21	7.9	49	3060	160							3580		
16	10.8	-343	0.21	8.6	47	3040	155							2800		
17																
18								0.1								
19	10.8	-344	0.24	6.5	56	3440	163							3760		
20	11	-344	0.12	5.9	46	3500	131							5780		
21	11.1	-342	0.21	5.5	48	3600	133							4140		
22	10.9	-341	0.14	5.4	55	2500	220							3260		
23	11.8	-342	0.16	5.5	59	3640	162							4760		
24																
25								0.1								
26	11	-258	0.14	4.0	49	3400	144							5700		
27	14	-302	0.14	3.8	50	3600	139							3400		
28	10.3	-309	0.14	4.3	47	3880	121							3480		
29	10.5	-328	0.14	4.5	48	3860	124							3580		
30	10.6	-334	0.14	4.5	59	3640	162							5620		
31																
Avg.	11.505		0	5.7318	48	3353	146	0.045						3850.9		
Max.	14		0.24	8.57	63	3880	228	0.06						5920		
Min.	10.2		0.12	3.81	40	2500	117	0.03						2500		
Data	22	22	22	0	22	22	22	4	0	0	0	0	0	22	0	0

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