

2000 ANNUAL REPORT

TEST RESULTS  
Residential Ruck Systems

RESULTS OF ANALYSIS OF RUCK TEST DATA FILED WITH DEP  
THE TESTING OF RUCK SYSTEMS IS ONLY REQUIRED FOR RUCK SYSTEMS INSTALLED  
IN NITROGEN SENSITIVE AREAS  
TN= TOTAL NITROGEN  
TN = TKN+NO3+NO2  
ALL RUCK SYSTEMS SERVE NEW CONSTRUCTION  
ALL RUCK SYSTEMS SERVE HOUSES WITH LOW FLOW DEVICES ON ALL PLUMBING FIXTURES

THERE ARE 26 SYSTEMS SAMPLED.  
THERE ARE 83 SAMPLES

TEST#	TOWN	LOCATION	DATE	BLACK WATER TN (mg/l)	GRAY WATER TN (mg/l)	INFLUENT TOTAL N TN (mg/l)	DIST. BOX TN (mg/l)	EMOVAL RATE
6	BARNSTABLE	Lot 18 Falling Leaf Lane	11/10/00				0.7	
47	BOXFORD	Lot 94a Lawrence Road	10/10/97	159.0	2.7	80.9	1.8	97.8%
44	BOXFORD	Lot 94a Lawrence Road	05/10/97	165.0	30.0	97.5	3.2	96.7%
46	BOXFORD	Lot 94a Lawrence Road	08/10/97	95.0	13.1	54.1	3.6	93.3%
48	BOXFORD	Lot 94a Lawrence Road	01/10/98	120.0	3.2	61.6	4.6	92.5%
72	NORTH READING	Lot 6 Fairway Road	11/20/99	170.0	5.2	87.6	5.4	93.8%
5	BARNSTABLE	Lot 17 Falling Leaf Lane	11/10/00				5.4	
75	NORTH READING	Lot 6 Fairway Road	11/20/00				5.7	
45	BOXFORD	Lot 94a Lawrence Road	07/10/97	134.0	9.6	71.8	6.7	90.7%
24	BARNSTABLE	Lot 24 Falling Leaf Lane	04/10/99	120.0	6.1	63.0	6.8	89.1%
37	BARNSTABLE	Lot 8 Falling Leaf Lane	09/10/99	160.0	18.0	89.0	7.0	92.1%
27	BARNSTABLE	Lot 24 Falling Leaf Lane	02/10/00	100.0	8.2	54.1	7.5	86.1%
1	BARNSTABLE	Lot 1 Falling Leaf Lane	04/10/99	52.0	6.9	29.5	7.8	73.5%
26	BARNSTABLE	Lot 24 Falling Leaf Lane	10/10/99	130.0	7.4	68.7	8.1	88.2%
54	NORTH READING	Lot 1 Fairway Road	06/20/00				8.2	
43	BOXFORD	Lot 94a Lawrence Road	02/10/97	148.0	10.5	79.3	8.4	89.4%
71	NORTH READING	Lot 5 Fairway Road	11/20/00				8.7	
25	BARNSTABLE	Lot 24 Falling Leaf Lane	09/10/99	160.0	10.0	85.0	8.7	89.8%
77	NORTH READING	Lot 8 Fairway Road	03/20/00	110.0	20.0	65.0	8.7	86.6%
41	BARNSTABLE	Lot 8 Falling Leaf Lane	11/10/00				9.6	
17	BARNSTABLE	Lot 22 Falling Leaf Lane	11/10/00				9.6	
73	NORTH READING	Lot 6 Fairway Road	03/20/00	100.0	9.3	54.7	9.9	81.9%
68	NORTH READING	Lot 5 Fairway Road	11/20/99	180.0	11.0	95.5	10.0	89.5%
13	BARNSTABLE	Lot 2 Falling Leaf Lane	10/10/99	110.0	9.4	59.7	10.1	83.1%
74	NORTH READING	Lot 6 Fairway Road	06/20/00				10.5	
7	BARNSTABLE	Lot 19 Falling Leaf Lane	04/10/99	120.0	10.0	65.0	10.5	83.8%
9	BARNSTABLE	Lot 19 Falling Leaf Lane	10/10/99	140.0	10.0	75.0	11.0	85.3%
62	NORTH READING	Lot 3 Fairway Road	06/20/00				11.0	
36	BARNSTABLE	Lot 8 Falling Leaf Lane	04/10/99	76.0	13.0	44.5	11.1	75.2%
63	NORTH READING	Lot 3 Fairway Road	11/20/00				12.0	
60	NORTH READING	Lot 3 Fairway Road	11/20/99	130.0	9.0	69.5	12.1	82.6%
65	NORTH READING	Lot 4 Fairway Road	03/20/00	150.0	3.3	76.7	12.7	83.4%
3	BARNSTABLE	Lot 1 Falling Leaf Lane	10/10/99	87.0	14.4	50.7	13.0	74.4%
2	BARNSTABLE	Lot 1 Falling Leaf Lane	07/10/99	84.0	14.0	49.0	13.0	73.5%
52	NORTH READING	Lot 1 Fairway Road	11/20/99	130.0	9.9	70.0	13.0	81.4%
42	BOXFORD	27 Brookview Road	11/22/00				13.3	
79	NORTH READING	Lot 8 Fairway Road	11/20/00				13.5	
80	NORTH READING	Lot 9 Fairway Road	11/20/99	140.0	15.0	77.5	14.1	81.8%
23	BARNSTABLE	Lot 23 Falling Leaf Lane	11/10/00				14.6	
55	NORTH READING	Lot 1 Fairway Road	11/20/00				15	
50	MASHPEE	46 Monomoscoy road	07/30/97	75.0	26.0	50.5	15.7	68.9%
11	BARNSTABLE	Lot 2 Falling Leaf Lane	04/10/99	99.0	13.0	56.0	16.0	71.4%
16	BARNSTABLE	Lot 2 Falling Leaf Lane	11/10/00				16.4	
49	MASHPEE	11 Bowsprit Point	10/30/97	150.0	17.9	84.0	16.8	80.0%
78	NORTH READING	Lot 8 Fairway Road	06/20/00				16.9	
67	NORTH READING	Lot 4 Fairway Road	11/20/00				17.7	
76	NORTH READING	Lot 8 Fairway Road	11/20/99	120.0	17.9	69.0	18.1	73.7%
20	BARNSTABLE	Lot 23 Falling Leaf Lane	11/10/99	160.0	19.9	90.0	18.2	79.7%
8	BARNSTABLE	Lot 19 Falling Leaf Lane	07/10/99	150.0	14.0	82.0	18.3	77.7%
35	BARNSTABLE	Lot 6 Falling Leaf Lane	11/10/00				18.3	
64	NORTH READING	Lot 4 Fairway Road	11/20/99	94.0	13.7	53.9	18.4	65.8%
12	BARNSTABLE	Lot 2 Falling Leaf Lane	07/10/99	140.0	14.2	77.1	18.6	75.9%
51	MASHPEE	46 Monomoscoy road	12/10/97	73.0	26.0	49.5	18.7	62.2%
10	BARNSTABLE	Lot 19 Falling Leaf Lane	02/10/00	63.1	14.4	38.7	18.9	51.2%
4	BARNSTABLE	Lot 1 Falling Leaf Lane	02/10/00	19.1	17.3	18.2	19.1	not meaningful
32	BARNSTABLE	Lot 6 Falling Leaf Lane	10/10/99	120.0	9.6	64.8	19.6	69.8%
34	BARNSTABLE	Lot 6 Falling Leaf Lane	05/10/00				19.9	
40	BARNSTABLE	Lot 8 Falling Leaf Lane	02/10/00	29.7	21.0	25.4	20.0	21.1%
70	NORTH READING	Lot 5 Fairway Road	06/20/00				20.0	
19	BARNSTABLE	Lot 23 Falling Leaf Lane	10/10/99	160.0	19.9	90.0	20.8	76.9%
61	NORTH READING	Lot 3 Fairway Road	03/20/00	120.0	16.8	68.4	21.0	69.3%
69	NORTH READING	Lot 5 Fairway Road	03/20/00	130.0	11.0	70.5	21.0	70.2%
39	BARNSTABLE	Lot 8 Falling Leaf Lane	11/10/99	120.0	24.0	72.0	21.1	70.8%
30	BARNSTABLE	Lot 3 Falling Leaf Lane	11/10/00				22.0	
53	NORTH READING	Lot 1 Fairway Road	03/20/00	110.0	20.0	65.0	22.0	66.2%
59	NORTH READING	Lot 2 Fairway Road	11/20/00				22.2	
31	BARNSTABLE	Lot 5 Falling Leaf Lane	11/10/00				23.4	
21	BARNSTABLE	Lot 23 Falling Leaf Lane	02/10/00	130.0	24.1	77.0	24.3	68.5%
14	BARNSTABLE	Lot 2 Falling Leaf Lane	02/10/00	120.0	31.0	75.5	24.4	67.7%
56	NORTH READING	Lot 2 Fairway Road	11/20/99	100.0	23.9	62.0	24.8	60.0%
38	BARNSTABLE	Lot 8 Falling Leaf Lane	10/10/99	120.0	24.0	72.0	26.0	63.9%
66	NORTH READING	Lot 4 Fairway Road	06/20/00				26.7	
15	BARNSTABLE	Lot 2 Falling Leaf Lane	05/10/00				27.0	
57	NORTH READING	Lot 2 Fairway Road	03/20/00	120.0	30.9	75.5	29.3	61.2%
33	BARNSTABLE	Lot 6 Falling Leaf Lane	02/10/00	170.0	30.0	100.0	32.0	68.0%
22	BARNSTABLE	Lot 23 Falling Leaf Lane	05/10/00				33.7	
82	NORTH READING	Lot 9 Fairway Road	06/20/00				35.0	
58	NORTH READING	Lot 2 Fairway Road	06/20/00				38.0	
81	NORTH READING	Lot 9 Fairway Road	03/20/00	100.0	39.2	69.6	40.0	42.5%
28	BARNSTABLE	Lot 25 Falling Leaf Lane	05/10/00				40.2	
29	BARNSTABLE	Lot 25 Falling Leaf Lane	11/10/00				46.0	
18	BARNSTABLE	Lot 23 Falling Leaf Lane	07/10/99	120.0	43.0	81.5	49.0	39.9%
83	NORTH READING	Lot 9 Fairway Road	11/20/00				52.0	
							<b>TN AVERAGE</b>	<b>17.3</b>
							HIGH	52.0
							LOW	0.7