

APPENDIX C. MICROBIAL SOURCE TRACKING DATA

This appendix presents microbial source tracking data. The table headings are defined as follows:

Isolate number: A unique number that Dr. Samadpour gave to each isolate from the water samples the County of Santa Cruz submitted.

Provider number: This number identifies what water sample was analyzed on a given date. In other words, if the County of Santa Cruz took four water samples on a given date, this column tells the reader which water sample was analyzed.

Stantum: The sampling station number (A map of the sampling stations is provided in Figure 8.)

Note: The specific fecal coliform source.

Source: The category of the fecal coliform source

FeColi: Fecal coliform concentration per 100 mL of water

Log FC: The logged fecal coliform concentration per 100 mL of water

Rain 1: Rainfall within the previous 24-hour time period

Rain 3: Rainfall within the previous 72-hour time period

Rain 7: Rainfall within the previous 168-hour time period

Isolate	Provider Sample	Stantum	Note	Source	Sample Date	Fe. Coli	Log FC	RAIN-1	RAIN-3	RAIN-7
65360	12802-003-1	003	avian	Bird	1/28/2002	70	1.845098	0	0.85	1.11
65361	12802-003-1	003	avian	Bird	1/28/2002	70	1.845098	0	0.85	1.11
65363	12802-003-2	003	avian	Bird	1/28/2002	60	1.7781513	0	0.85	1.11
65366	12802-003-3	003	avian	Bird	1/28/2002	110	2.0413927	0	0.85	1.11
65362	12802-003-2	003	dog	Dog	1/28/2002	60	1.7781513	0	0.85	1.11
65358	12802-003-1	003	human	Human	1/28/2002	70	1.845098	0	0.85	1.11
65364	12802-003-2	003	rodent	Rodent	1/28/2002	60	1.7781513	0	0.85	1.11
65365	12802-003-3	003	unknown	Unknown	1/28/2002	110	2.0413927	0	0.85	1.11
65359	12802-003-1	003	raccoon	Wildlife	1/28/2002	70	1.845098	0	0.85	1.11
65367	12802-003-3	003	deer	Wildlife	1/28/2002	110	2.0413927	0	0.85	1.11
65745	21202-003-4	003	human	Human	2/12/2002	40	1.60206	0	0	1.69
65746	21202-003-4	003	rodent	Rodent	2/12/2002	40	1.60206	0	0	1.69
65743	21202-003-1	003	unknown	Unknown	2/12/2002	20	1.30103	0	0	1.69
65744	21202-003-4	003	unknown	Unknown	2/12/2002	40	1.60206	0	0	1.69
66216	003-1	003	avian	Bird	3/25/2002	820	2.9138139	0	0.1	1.83
66219	003-2	003	septage/ ss/ human	Human	3/25/2002	700	2.845098	0	0.1	1.83
66220	003-3	003	human	Human	3/25/2002	770	2.8864907	0	0.1	1.83
66221	003-3	003	human	Human	3/25/2002	770	2.8864907	0	0.1	1.83
66222	003-3	003	human	Human	3/25/2002	770	2.8864907	0	0.1	1.83
66223	003-3	003	raw sewage	Human	3/25/2002	770	2.8864907	0	0.1	1.83
66224	003-4	003	human	Human	3/25/2002	610	2.7853298	0	0.1	1.83
66225	003-4	003	rodent	Rodent	3/25/2002	610	2.7853298	0	0.1	1.83
66214	003-1	003	unknown	Unknown	3/25/2002	820	2.9138139	0	0.1	1.83
66215	003-1	003	unknown	Unknown	3/25/2002	820	2.9138139	0	0.1	1.83
66217	003-2	003	unknown	Unknown	3/25/2002	700	2.845098	0	0.1	1.83

Isolate	Provider Sample	Stantum	Note	Source	Sample Date	Fe. Coli	Log FC	RAIN-1	RAIN-3	RAIN-7
66218	003-2	003	unknown	Unknown	3/25/2002	700	2.845098	0	0.1	1.83
66226	003-4	003	beaver/ otter	Wildlife	3/25/2002	610	2.7853298	0	0.1	1.83
67331	003-1	003	Gull	Bird	5/21/2002	940	2.9731279	0	0.95	0.95
67335	003-3	003	avian	Bird	5/21/2002	710	2.8512583	0	0.95	0.95
67330	003-1	003	septage/ ss/ human	Human	5/21/2002	940	2.9731279	0	0.95	0.95
67332	003-1	003	raw sewage	Human	5/21/2002	940	2.9731279	0	0.95	0.95
67333	003-2	003	human	Human	5/21/2002	750	2.8750613	0	0.95	0.95
67334	003-2	003	human	Human	5/21/2002	750	2.8750613	0	0.95	0.95
67336	003-3	003	raw sewage	Human	5/21/2002	710	2.8512583	0	0.95	0.95
67337	003-3	003	unknown	Unknown	5/21/2002	710	2.8512583	0	0.95	0.95
71843	003-1	003	avian	Bird	12/10/2002	480	2.6812412	0.1	0.38	0.38
71845	003-1	003	avian	Bird	12/10/2002	480	2.6812412	0.1	0.38	0.38
71846	003-1	003	avian	Bird	12/10/2002	480	2.6812412	0.1	0.38	0.38
71847	003-1	003	Gull	Bird	12/10/2002	480	2.6812412	0.1	0.38	0.38
71849	003-1	003	avian	Bird	12/10/2002	480	2.6812412	0.1	0.38	0.38
71850	003-1	003	avian	Bird	12/10/2002	480	2.6812412	0.1	0.38	0.38
71852	003-2	003	Gull	Bird	12/10/2002	580	2.763428	0.1	0.38	0.38
71853	003-2	003	avian	Bird	12/10/2002	580	2.763428	0.1	0.38	0.38
71857	003-2	003	avian	Bird	12/10/2002	580	2.763428	0.1	0.38	0.38
71858	003-2	003	avian	Bird	12/10/2002	580	2.763428	0.1	0.38	0.38
71859	003-2	003	gull	Bird	12/10/2002	580	2.763428	0.1	0.38	0.38
71863	003-3	003	avian	Bird	12/10/2002	900	2.9542425	0.1	0.38	0.38
71865	003-3	003	avian	Bird	12/10/2002	900	2.9542425	0.1	0.38	0.38
71870	003-3	003	avian	Bird	12/10/2002	900	2.9542425	0.1	0.38	0.38
71872	003-3	003	Gull	Bird	12/10/2002	900	2.9542425	0.1	0.38	0.38
71851	003-1	003	horse	Horse	12/10/2002	480	2.6812412	0.1	0.38	0.38
71848	003-1	003	raw sewage	Human	12/10/2002	480	2.6812412	0.1	0.38	0.38
71854	003-2	003	human	Human	12/10/2002	580	2.763428	0.1	0.38	0.38
71855	003-2	003	human	Human	12/10/2002	580	2.763428	0.1	0.38	0.38
71856	003-2	003	human	Human	12/10/2002	580	2.763428	0.1	0.38	0.38
71864	003-3	003	human	Human	12/10/2002	900	2.9542425	0.1	0.38	0.38
71866	003-3	003	human	Human	12/10/2002	900	2.9542425	0.1	0.38	0.38
71867	003-3	003	human	Human	12/10/2002	900	2.9542425	0.1	0.38	0.38
71871	003-3	003	human	Human	12/10/2002	900	2.9542425	0.1	0.38	0.38
71842	003-1	003	unknown	Unknown	12/10/2002	480	2.6812412	0.1	0.38	0.38
71860	003-2	003	unknown	Unknown	12/10/2002	580	2.763428	0.1	0.38	0.38

Isolate	Provider Sample	Stantum	Note	Source	Sample Date	Fe. Coli	Log FC	RAIN-1	RAIN-3	RAIN-7
71861	003-2	003	unknown	Unknown	12/10/2002	580	2.763428	0.1	0.38	0.38
71869	003-3	003	unknown	Unknown	12/10/2002	900	2.9542425	0.1	0.38	0.38
71844	003-1	003	otter	Wildlife	12/10/2002	480	2.6812412	0.1	0.38	0.38
71862	003-2	003	otter	Wildlife	12/10/2002	580	2.763428	0.1	0.38	0.38
72062	003-1	003	avian	Bird	12/18/2002	140	2.146128	0	0.58	14.28
72064	003-2	003	avian	Bird	12/18/2002	130	2.1139434	0	0.58	14.28
72066	003-2	003	Gull	Bird	12/18/2002	130	2.1139434	0	0.58	14.28
72068	003-2	003	Gull	Bird	12/18/2002	130	2.1139434	0	0.58	14.28
72070	003-3	003	avian	Bird	12/18/2002	270	2.4313638	0	0.58	14.28
72073	003-3	003	avian	Bird	12/18/2002	270	2.4313638	0	0.58	14.28
72069	003-3	003	dog	Dog	12/18/2002	270	2.4313638	0	0.58	14.28
72063	003-1	003	human	Human	12/18/2002	140	2.146128	0	0.58	14.28
72065	003-2	003	septage	Human	12/18/2002	130	2.1139434	0	0.58	14.28
72067	003-2	003	human	Human	12/18/2002	130	2.1139434	0	0.58	14.28
72071	003-3	003	human	Human	12/18/2002	270	2.4313638	0	0.58	14.28
72072	003-3	003	human	Human	12/18/2002	270	2.4313638	0	0.58	14.28
72058	003-1	003	unknown	Unknown	12/18/2002	140	2.146128	0	0.58	14.28
72059	003-1	003	unknown	Unknown	12/18/2002	140	2.146128	0	0.58	14.28
72060	003-1	003	unknown	Unknown	12/18/2002	140	2.146128	0	0.58	14.28
72061	003-1	003	unknown	Unknown	12/18/2002	140	2.146128	0	0.58	14.28
72402	003-1	003	avian	Bird	1/13/2003	360	2.5563025	0	0	1.8
72403	003-1	003	avian	Bird	1/13/2003	360	2.5563025	0	0	1.8
72406	003-2	003	avian	Bird	1/13/2003	300	2.4771213	0	0	1.8
72407	003-3	003	avian	Bird	1/13/2003	520	2.7160033	0	0	1.8
72408	003-3	003	avian	Bird	1/13/2003	520	2.7160033	0	0	1.8
72405	003-2	003	dog	Dog	1/13/2003	300	2.4771213	0	0	1.8
72409	003-3	003	dog	Dog	1/13/2003	520	2.7160033	0	0	1.8
72400	003-1	003	human	Human	1/13/2003	360	2.5563025	0	0	1.8
72401	003-1	003	human	Human	1/13/2003	360	2.5563025	0	0	1.8
72404	003-2	003	human	Human	1/13/2003	300	2.4771213	0	0	1.8
72738	003-1	003	avian	Bird	2/18/2003	140	2.146128	0	0	1.47
72739	003-1	003	Gull	Bird	2/18/2003	140	2.146128	0	0	1.47
72745	003-2	003	avian	Bird	2/18/2003	130	2.1139434	0	0	1.47
72747	003-3	003	gull	Bird	2/18/2003	270	2.4313638	0	0	1.47
72749	003-3	003	gull	Bird	2/18/2003	270	2.4313638	0	0	1.47
72750	003-3	003	Gull	Bird	2/18/2003	270	2.4313638	0	0	1.47
72796	003-1	003	Gull	Bird	2/18/2003	140	2.146128	0	0	1.47
72797	003-1	003	avian	Bird	2/18/2003	140	2.146128	0	0	1.47
72800	003-2	003	avian	Bird	2/18/2003	130	2.1139434	0	0	1.47
72801	003-2	003	avian	Bird	2/18/2003	130	2.1139434	0	0	1.47

Isolate	Provider Sample	Stantum	Note	Source	Sample Date	Fe. Coli	Log FC	RAIN-1	RAIN-3	RAIN-7
72802	003-2	003	avian	Bird	2/18/2003	130	2.1139434	0	0	1.47
72803	003-2	003	avian	Bird	2/18/2003	130	2.1139434	0	0	1.47
72804	003-2	003	avian	Bird	2/18/2003	130	2.1139434	0	0	1.47
72805	003-3	003	avian	Bird	2/18/2003	270	2.4313638	0	0	1.47
72807	003-3	003	bovine	Cow	2/18/2003	270	2.4313638	0	0	1.47
72746	003-2	003	horse	Horse	2/18/2003	130	2.1139434	0	0	1.47
72740	003-1	003	septage	Human	2/18/2003	140	2.146128	0	0	1.47
72741	003-1	003	septage	Human	2/18/2003	140	2.146128	0	0	1.47
72744	003-2	003	human	Human	2/18/2003	130	2.1139434	0	0	1.47
72748	003-3	003	septage/ human	Human	2/18/2003	270	2.4313638	0	0	1.47
72798	003-1	003	human	Human	2/18/2003	140	2.146128	0	0	1.47
72799	003-1	003	human	Human	2/18/2003	140	2.146128	0	0	1.47
72803	003-2	003	human	Human	2/18/2003	130	2.1139434	0	0	1.47
72806	003-3	003	human	Human	2/18/2003	270	2.4313638	0	0	1.47
72808	003-3	003	human	Human	2/18/2003	270	2.4313638	0	0	1.47
72742	003-1	003	unknown	Unknown	2/18/2003	140	2.146128	0	0	1.47
72743	003-2	003	deer	Wildlife	2/18/2003	130	2.1139434	0	0	1.47
73154	003-1	003	gull	Bird	3/18/2003	1190	3.075547	0	0.39	2.08
73157	003-1	003	gull	Bird	3/18/2003	1190	3.075547	0	0.39	2.08
73159	003-2	003	gull	Bird	3/18/2003	1310	3.1172713	0	0.39	2.08
73161	003-2	003	Gull	Bird	3/18/2003	1310	3.1172713	0	0.39	2.08
73162	003-2	003	avian	Bird	3/18/2003	1310	3.1172713	0	0.39	2.08
73163	003-2	003	avian	Bird	3/18/2003	1310	3.1172713	0	0.39	2.08
73165	003-2	003	avian	Bird	3/18/2003	1310	3.1172713	0	0.39	2.08
73172	003-3	003	avian	Bird	3/18/2003	1130	3.0530784	0	0.39	2.08
73173	003-3	003	avian	Bird	3/18/2003	1130	3.0530784	0	0.39	2.08
73175	003-3	003	avian	Bird	3/18/2003	1130	3.0530784	0	0.39	2.08
73176	003-3	003	avian	Bird	3/18/2003	1130	3.0530784	0	0.39	2.08
73150	003-1	003	dog	Dog	3/18/2003	1190	3.075547	0	0.39	2.08
73164	003-2	003	dog	Dog	3/18/2003	1310	3.1172713	0	0.39	2.08
73168	003-2	003	canine	Dog	3/18/2003	1310	3.1172713	0	0.39	2.08
73174	003-3	003	canine	Dog	3/18/2003	1130	3.0530784	0	0.39	2.08
73151	003-1	003	septage	Human	3/18/2003	1190	3.075547	0	0.39	2.08
73152	003-1	003	septage	Human	3/18/2003	1190	3.075547	0	0.39	2.08
73166	003-2	003	septage	Human	3/18/2003	1310	3.1172713	0	0.39	2.08
73167	003-2	003	septage	Human	3/18/2003	1310	3.1172713	0	0.39	2.08
73169	003-3	003	human	Human	3/18/2003	1130	3.0530784	0	0.39	2.08
73178	003-3	003	human	Human	3/18/2003	1130	3.0530784	0	0.39	2.08
73155	003-1	003	rodent	Rodent	3/18/2003	1190	3.075547	0	0.39	2.08
73156	003-1	003	rodent	Rodent	3/18/2003	1190	3.075547	0	0.39	2.08
73160	003-2	003	rodent	Rodent	3/18/2003	1310	3.1172713	0	0.39	2.08
73153	003-1	003	unknown	Unknown	3/18/2003	1190	3.075547	0	0.39	2.08

Isolate	Provider Sample	Stantum	Note	Source	Sample Date	Fe. Coli	Log FC	RAIN-1	RAIN-3	RAIN-7
73158	003-2	003	unknown	Unknown	3/18/2003	1310	3.1172713	0	0.39	2.08
73170	003-3	003	unknown	Unknown	3/18/2003	1130	3.0530784	0	0.39	2.08
73171	003-3	003	unknown	Unknown	3/18/2003	1130	3.0530784	0	0.39	2.08
73177	003-3	003	unknown	Unknown	3/18/2003	1130	3.0530784	0	0.39	2.08
85261	003 rep	003	avian	Bird	10/18/2003	700	2.845098		0	0
85262	003 rep	003	avian	Bird	10/18/2003	700	2.845098		0	0
85259	003	003	human	Human	10/18/2003	900	2.9542425		0	0
85257	003	003	rodent	Rodent	10/18/2003	900	2.9542425		0	0
85258	003	003	Unknown	Unknown	10/18/2003	900	2.9542425		0	0
85260	003 rep	003	Unknown	Unknown	10/18/2003	700	2.845098		0	0
84945	003-1	003	avian	Bird	10/21/2003	640	2.80618		0	0
84946	003-2	003	avian	Bird	10/21/2003	480	2.6812412		0	0
84947	003-2	003	gull	Bird	10/21/2003	480	2.6812412		0	0
84948	003-2	003	avian	Bird	10/21/2003	480	2.6812412		0	0
84943	003-1	003	raccoon	Wildlife	10/21/2003	640	2.80618		0	0
84944	003-1	003	raccoon	Wildlife	10/21/2003	640	2.80618		0	0
85578	003-1	003	avian	Bird	11/5/2003	260	2.4149733	0.39	0.39	1.2
85579	003-1	003	gull	Bird	11/5/2003	260	2.4149733	0.39	0.39	1.2
85583	003-2	003	avian	Bird	11/5/2003	100	2	0.39	0.39	1.2
85582	003-2	003	bov	Cow	11/5/2003	100	2	0.39	0.39	1.2
85577	003-1	003	canine	Dog	11/5/2003	260	2.4149733	0.39	0.39	1.2
85580	003-2	003	Unknown	Unknown	11/5/2003	100	2	0.39	0.39	1.2
85581	003-2	003	Unknown	Unknown	11/5/2003	100	2	0.39	0.39	1.2
86553	12-08-03-3B	003	gull	Bird	12/8/2003	740	2.8692317		1.31	1.64
86550	12-08-03-3A	003	rodent	Rodent	12/8/2003	820	2.9138139		1.31	1.64
86551	12-08-03-3A	003	rodent	Rodent	12/8/2003	820	2.9138139		1.31	1.64
86554	12-08-03-3B	003	rodent	Rodent	12/8/2003	740	2.8692317		1.31	1.64
86552	12-08-03-3B	003	Unknown	Unknown	12/8/2003	740	2.8692317		1.31	1.64
86549	12-08-03-3A	003	raccoon	Wildlife	12/8/2003	820	2.9138139		1.31	1.64
87450	003-2	003	gull	Bird	1/21/2004	20	1.30103		0	0
87452	003-3	003	avian	Bird	1/21/2004	30	1.4771213		0	0
87448	003-1	003	human	Human	1/21/2004	50	1.69897		0	0
87451	003-3	003	human	Human	1/21/2004	30	1.4771213		0	0

Isolate	Provider Sample	Stantum	Note	Source	Sample Date	Fe. Coli	Log FC	RAIN-1	RAIN-3	RAIN-7
87447	003-1	003	rodent	Rodent	1/21/2004	50	1.69897		0	0
87449	003-2	003	rodent	Rodent	1/21/2004	20	1.30103		0	0
87446	003-1	003	raccoon	Wildlife	1/21/2004	50	1.69897		0	0
90658	003-1	003	avian	Bird	3/23/2004	300	2.4771213		0	0
90659	003-2	003	gull	Bird	3/23/2004	240	2.3802112		0	0
90660	003-2	003	avian	Bird	3/23/2004	240	2.3802112		0	0
90662	003-3	003	avian	Bird	3/23/2004	160	2.20412		0	0
90663	003-3	003	gull	Bird	3/23/2004	160	2.20412		0	0
90656	003-1	003	bovine	Cow	3/23/2004	300	2.4771213		0	0
90661	003-2	003	rodent	Rodent	3/23/2004	240	2.3802112		0	0
90664	003-3	003	rodent	Rodent	3/23/2004	160	2.20412		0	0
90657	003-1	003	Unknown	Unknown	3/23/2004	300	2.4771213		0	0
93173	003-1	003	gull	Bird	5/18/2004	290	2.462398		0	0
93176	003-2	003	avian	Bird	5/18/2004	290	2.462398		0	0
93178	003-2	003	avian	Bird	5/18/2004	290	2.462398		0	0
93181	003-3	003	avian	Bird	5/18/2004	290	2.462398		0	0
93182	003-3	003	avian	Bird	5/18/2004	290	2.462398		0	0
93177	003-2	003	human	Human	5/18/2004	290	2.462398		0	0
93180	003-3	003	human	Human	5/18/2004	290	2.462398		0	0
93174	003-1	003	Unknown	Unknown	5/18/2004	290	2.462398		0	0
93179	003-3	003	Unknown	Unknown	5/18/2004	290	2.462398		0	0
93175	003-1	003	raccoon	Wildlife	5/18/2004	290	2.462398		0	0
95419	6-15-04-003-1	003	avian	Bird	6/15/2004	1380	3.1398791	0	0	0
95422	6-15-04-003-2	003	avian	Bird	6/15/2004	1280	3.10721	0	0	0
95424	6-15-04-003-3	003	avian	Bird	6/15/2004	1320	3.1205739	0	0	0
95425	6-15-04-003-3	003	gull	Bird	6/15/2004	1320	3.1205739	0	0	0
95426	6-15-04-003-3	003	avian	Bird	6/15/2004	1320	3.1205739	0	0	0
95507	6-16-04-003-1	003	gull	Bird	6/15/2004	620	2.7923917	0	0	0
95508	6-16-04-003-1	003	gull	Bird	6/15/2004	620	2.7923917	0	0	0
95510	6-16-04-003-2	003	avian	Bird	6/15/2004	660	2.8195439	0	0	0
95511	6-16-04-003-2	003	avian	Bird	6/15/2004	660	2.8195439	0	0	0
95513	6-16-04-003-3	003	avian	Bird	6/15/2004	640	2.80618	0	0	0
95417	6-15-04-003-1	003	dog	Dog	6/15/2004	1380	3.1398791	0	0	0

Isolate	Provider Sample	Stantum	Note	Source	Sample Date	Fe. Coli	Log FC	RAIN-1	RAIN-3	RAIN-7
95423	6-15-04-003-2	003	dog	Dog	6/15/2004	1280	3.10721	0	0	0
95506	6-16-04-003-1	003	horse	Horse	6/15/2004	620	2.7923917	0	0	0
95509	6-16-04-003-2	003	human	Human	6/15/2004	660	2.8195439	0	0	0
95418	6-15-04-003-1	003	rodent	Rodent	6/15/2004	1380	3.1398791	0	0	0
95512	6-16-04-003-3	003	rodent	Rodent	6/15/2004	640	2.80618	0	0	0
95514	6-16-04-003-3	003	Rodent	Rodent	6/15/2004	640	2.80618	0	0	0
95420	6-15-04-003-2	003	Unknown	Unknown	6/15/2004	1280	3.10721	0	0	0
95421	6-15-04-003-2	003	Unknown	Unknown	6/15/2004	1280	3.10721	0	0	0
95779	6-24-04-003-1	003	avian	Bird	6/24/2004	240	2.3802112	0	0	0
95782	6-24-04-003-1	003	gull	Bird	6/24/2004	240	2.3802112	0	0	0
95784	6-24-04-003-2	003	avian	Bird	6/24/2004	210	2.3222193	0	0	0
95787	6-24-04-003-3	003	gull	Bird	6/24/2004	220	2.3424227	0	0	0
95788	6-24-04-003-3	003	bovine	Cow	6/24/2004	220	2.3424227	0	0	0
95780	6-24-04-003-1	003	dog	Dog	6/24/2004	240	2.3802112	0	0	0
95781	6-24-04-003-1	003	dog	Dog	6/24/2004	240	2.3802112	0	0	0
95785	6-24-04-003-2	003	dog	Dog	6/24/2004	210	2.3222193	0	0	0
95783	6-24-04-003-2	003	rodent	Rodent	6/24/2004	210	2.3222193	0	0	0
95786	6-24-04-003-3	003	Unknown	Unknown	6/24/2004	220	2.3424227	0	0	0
97558	07-19-2004-003-1	003	avian	Bird	7/19/2004	350	2.544068	0	0	0
97559	07-19-2004-003-2	003	avian	Bird	7/19/2004	270	2.4313638	0	0	0
97564	07-19-2004-003-3	003	avian	Bird	7/19/2004	400	2.60206	0	0	0

Isolate	Provider Sample	Stantum	Note	Source	Sample Date	Fe. Coli	Log FC	RAIN-1	RAIN-3	RAIN-7
97563	07-19-2004-003-3	003	canine	Dog	7/19/2004	400	2.60206	0	0	0
97556	07-19-2004-003-1	003	human	Human	7/19/2004	350	2.544068	0	0	0
97557	07-19-2004-003-1	003	human	Human	7/19/2004	350	2.544068	0	0	0
97565	07-19-2004-003-3	003	human	Human	7/19/2004	400	2.60206	0	0	0
97560	07-19-2004-003-2	003	Unknown	Unknown	7/19/2004	270	2.4313638	0	0	0
97561	07-19-2004-003-2	003	Unknown	Unknown	7/19/2004	270	2.4313638	0	0	0
97562	07-19-2004-003-2	003	unknown	Unknown	7/19/2004	270	2.4313638	0	0	0
97650	07-20-2004-003-2	003	avian	Bird	7/20/2004	290	2.462398	0	0	0
97651	07-20-2004-003-2	003	avian	Bird	7/20/2004	290	2.462398	0	0	0
97654	07-20-2004-003-3	003	avian	Bird	7/20/2004	240	2.3802112	0	0	0
97646	07-20-2004-003-1	003	canine	Dog	7/20/2004	210	2.3222193	0	0	0
97647	07-20-2004-003-1	003	sewage	Human	7/20/2004	210	2.3222193	0	0	0
97649	07-20-2004-003-2	003	human	Human	7/20/2004	290	2.462398	0	0	0
97653	07-20-2004-003-3	003	rodent	Rodent	7/20/2004	240	2.3802112	0	0	0
97652	07-20-2004-003-3	003	Unknown	Unknown	7/20/2004	240	2.3802112	0	0	0
97648	07-20-2004-003-1	003	Raccoon	Wildlife	7/20/2004	210	2.3222193	0	0	0

Isolate	Provider Sample	Stantum	Note	Source	Sample Date	Fe. Coli	Log FC	RAIN-1	RAIN-3	RAIN-7
98751	8-02-04-003-1	003	avian	Bird	8/2/2004	160	2.20412	0	0	0
98753	8-02-04-003-1	003	avian	Bird	8/2/2004	160	2.20412	0	0	0
98754	8-02-04-003-2	003	gull	Bird	8/2/2004	190	2.2787536	0	0	0
98755	8-02-04-003-2	003	avian	Bird	8/2/2004	190	2.2787536	0	0	0
98756	8-02-04-003-2	003	avian	Bird	8/2/2004	190	2.2787536	0	0	0
98757	8-02-04-003-3	003	avian	Bird	8/2/2004	200	2.30103	0	0	0
98758	8-02-04-003-3	003	avian	Bird	8/2/2004	200	2.30103	0	0	0
98759	8-02-04-003-3	003	avian	Bird	8/2/2004	200	2.30103	0	0	0
98752	8-02-04-003-1	003	Raccoon	Wildlife	8/2/2004	160	2.20412	0	0	0
99407	8-04-04-003-1	003	avian	Bird	8/4/2004	170	2.2304489	0	0	0
99408	8-04-04-003-1	003	avian	Bird	8/4/2004	170	2.2304489	0	0	0
99409	8-04-04-003-1	003	gull	Bird	8/4/2004	170	2.2304489	0	0	0
99410	8-04-04-003-2	003	avian	Bird	8/4/2004	110	2.0413927	0	0	0
99411	8-04-04-003-2	003	gull	Bird	8/4/2004	110	2.0413927	0	0	0
99412	8-04-04-003-2	003	avian	Bird	8/4/2004	110	2.0413927	0	0	0
99414	8-04-04-003-3	003	avian	Bird	8/4/2004	60	1.7781513	0	0	0
99415	8-04-04-003-3	003	Unknown	Unknown	8/4/2004	60	1.7781513	0	0	0
99413	8-04-04-003-3	003	Raccoon	Wildlife	8/4/2004	60	1.7781513	0	0	0
99793	8-18-04-003-1	003	gull	Bird	8/18/2004	180	2.2552725	0	0	0
99794	8-18-04-003-1	003	gull	Bird	8/18/2004	180	2.2552725	0	0	0
99795	8-18-04-003-2	003	avian	Bird	8/18/2004	180	2.2552725	0	0	0
99797	8-18-04-003-2	003	gull	Bird	8/18/2004	180	2.2552725	0	0	0
99798	8-18-04-003-3	003	gull	Bird	8/18/2004	200	2.30103	0	0	0

Isolate	Provider Sample	Stantum	Note	Source	Sample Date	Fe. Coli	Log FC	RAIN-1	RAIN-3	RAIN-7
99799	8-18-04-003-3	003	avian	Bird	8/18/2004	200	2.30103	0	0	0
99800	8-18-04-003-3	003	gull	Bird	8/18/2004	200	2.30103	0	0	0
99801	8-18-04-003-3	003	gull	Bird	8/18/2004	200	2.30103	0	0	0
99792	8-18-04-003-1	003	canine	Dog	8/18/2004	180	2.2552725	0	0	0
99796	8-18-04-003-2	003	canine	Dog	8/18/2004	180	2.2552725	0	0	0
102503	003-2	003	avian	Bird	9/21/2004	160	2.20412	0	0.02	0.02
102505	003-3	003	gull	Bird	9/21/2004	188	2.2741578	0	0.02	0.02
102506	003-3	003	gull	Bird	9/21/2004	188	2.2741578	0	0.02	0.02
102507	003-3	003	avian	Bird	9/21/2004	188	2.2741578	0	0.02	0.02
102117	003-1	003	human	Human	9/21/2004	176	2.2455127	0	0.02	0.02
102504	003-2	003	Unknown	Unknown	9/21/2004	160	2.20412	0	0.02	0.02
102118	003-1	003	Raccoon	Wildlife	9/21/2004	176	2.2455127	0	0.02	0.02
102119	003-1	003	raccoon	Wildlife	9/21/2004	176	2.2455127	0	0.02	0.02
65368	12802-022-1	022	avian	Bird	1/28/2002	120	2.0791812	0	0.85	1.11
65371	12802-022-2	022	Gull	Bird	1/28/2002	120	2.0791812	0	0.85	1.11
65372	12802-022-2	022	Gull	Bird	1/28/2002	120	2.0791812	0	0.85	1.11
65373	12802-022-2	022	avian	Bird	1/28/2002	120	2.0791812	0	0.85	1.11
65376	12802-022-3	022	avian	Bird	1/28/2002	100	2	0	0.85	1.11
65370	12802-022-1	022	human	Human	1/28/2002	120	2.0791812	0	0.85	1.11
65374	12802-022-3	022	septage/ss/ human	Human	1/28/2002	100	2	0	0.85	1.11
65375	12802-022-3	022	septage/ss/ human	Human	1/28/2002	100	2	0	0.85	1.11
65369	12802-022-1	022	unknown	Unknown	1/28/2002	120	2.0791812	0	0.85	1.11
65751	21202-022-2	022	duck	Bird	2/12/2002	24	1.3802112	0	0	1.69

Isolate	Provider Sample	Stantum	Note	Source	Sample Date	Fe. Coli	Log FC	RAIN-1	RAIN-3	RAIN-7
65752	21202-022-3	022	avian	Bird	2/12/2002	12	1.0791812	0	0	1.69
65747	21202-022-1	022	feline	Cat	2/12/2002	16	1.20412	0	0	1.69
65749	21202-022-2	022	Bovine	Cow	2/12/2002	24	1.3802112	0	0	1.69
65750	21202-022-2	022	swine	Unknown	2/12/2002	24	1.3802112	0	0	1.69
65748	21202-022-1	022	beaver/otter	Wildlife	2/12/2002	16	1.20412	0	0	1.69
66232	022-3	022	avian	Bird	3/25/2002	72	1.8573325	0	0.1	1.83
66230	022-3	022	dog	Dog	3/25/2002	72	1.8573325	0	0.1	1.83
66234	022-4	022	dog	Dog	3/25/2002	56	1.748188	0	0.1	1.83
66227	022-1	022	human	Human	3/25/2002	76	1.8808136	0	0.1	1.83
66228	022-1	022	raw sewage	Human	3/25/2002	76	1.8808136	0	0.1	1.83
66229	022-1	022	raw sewage	Human	3/25/2002	76	1.8808136	0	0.1	1.83
66233	022-4	022	rodent	Rodent	3/25/2002	56	1.748188	0	0.1	1.83
66235	022-4	022	rodent	Rodent	3/25/2002	56	1.748188	0	0.1	1.83
66546	022-2	022	rodent	Rodent	3/25/2002	52	1.7160033	0	0.1	1.83
66547	022-2	022	rodent	Rodent	3/25/2002	52	1.7160033	0	0.1	1.83
66231	022-3	022	otter	Wildlife	3/25/2002	72	1.8573325	0	0.1	1.83
67343	022-2	022	avian	Bird	5/21/2002	300	2.4771213	0	0.95	0.95
67345	022-3	022	avian	Bird	5/21/2002	190	2.2787536	0	0.95	0.95
67338	022-1	022	raw sewage	Human	5/21/2002	320	2.50515	0	0.95	0.95
67339	022-1	022	rodent	Rodent	5/21/2002	320	2.50515	0	0.95	0.95
67340	022-1	022	unknown	Unknown	5/21/2002	320	2.50515	0	0.95	0.95
67341	022-1	022	unknown	Unknown	5/21/2002	320	2.50515	0	0.95	0.95
67344	022-3	022	unknown	Unknown	5/21/2002	190	2.2787536	0	0.95	0.95
67342	022-2	022	otter	Wildlife	5/21/2002	300	2.4771213	0	0.95	0.95
71834	022-1	022	avian	Bird	12/10/2002	320	2.50515	0.1	0.38	0.38
71835	022-1	022	avian	Bird	12/10/2002	320	2.50515	0.1	0.38	0.38
71839	022-3	022	avian	Bird	12/10/2002	190	2.2787536	0.1	0.38	0.38
71840	022-3	022	Bovine	Cow	12/10/2002	190	2.2787536	0.1	0.38	0.38
71841	022-3	022	Bovine	Cow	12/10/2002	190	2.2787536	0.1	0.38	0.38
71836	022-1	022	human	Human	12/10/2002	320	2.50515	0.1	0.38	0.38
71837	022-3	022	otter	Wildlife	12/10/2002	190	2.2787536	0.1	0.38	0.38
72087	022-3	022	avian	Bird	12/18/2002	88	1.9444827	0	0.58	14.28
72088	022-3	022	bovine	Cow	12/18/2002	88	1.9444827	0	0.58	14.28
72078	022-1	022	human	Human	12/18/2002	76	1.8808136	0	0.58	14.28
72083	022-2	022	raw sewage	Human	12/18/2002	68	1.8325089	0	0.58	14.28

Isolate	Provider Sample	Stantum	Note	Source	Sample Date	Fe. Coli	Log FC	RAIN-1	RAIN-3	RAIN-7
72084	022-2	022	human	Human	12/18/2002	68	1.8325089	0	0.58	14.28
72074	022-1	022	unknown	Unknown	12/18/2002	76	1.8808136	0	0.58	14.28
72075	022-1	022	unknown	Unknown	12/18/2002	76	1.8808136	0	0.58	14.28
72076	022-1	022	unknown	Unknown	12/18/2002	76	1.8808136	0	0.58	14.28
72077	022-1	022	unknown	Unknown	12/18/2002	76	1.8808136	0	0.58	14.28
72079	022-2	022	unknown	Unknown	12/18/2002	68	1.8325089	0	0.58	14.28
72080	022-2	022	unknown	Unknown	12/18/2002	68	1.8325089	0	0.58	14.28
72081	022-2	022	unknown	Unknown	12/18/2002	68	1.8325089	0	0.58	14.28
72082	022-2	022	unknown	Unknown	12/18/2002	68	1.8325089	0	0.58	14.28
72085	022-3	022	unknown	Unknown	12/18/2002	88	1.9444827	0	0.58	14.28
72086	022-3	022	unknown	Unknown	12/18/2002	88	1.9444827	0	0.58	14.28
72089	022-3	022	Unknown	Unknown	12/18/2002	88	1.9444827	0	0.58	14.28
72414	022-2	022	avian	Bird	1/13/2003	112	2.049218	0	0	1.8
72416	022-3	022	avian	Bird	1/13/2003	144	2.1583625	0	0	1.8
72417	022-3	022	avian	Bird	1/13/2003	144	2.1583625	0	0	1.8
72411	022-1	022	canine	Dog	1/13/2003	136	2.1335389	0	0	1.8
72415	022-2	022	horse	Horse	1/13/2003	112	2.049218	0	0	1.8
72410	022-1	022	human	Human	1/13/2003	136	2.1335389	0	0	1.8
72412	022-1	022	septage/ human	Human	1/13/2003	136	2.1335389	0	0	1.8
72413	022-2	022	human	Human	1/13/2003	112	2.049218	0	0	1.8
72418	022-3	022	unknown	Unknown	1/13/2003	144	2.1583625	0	0	1.8
72728	022-1	022	avian	Bird	2/18/2003	76	1.8808136	0	0	1.47
72730	022-2	022	avian	Bird	2/18/2003	68	1.8325089	0	0	1.47
72733	022-2	022	avian	Bird	2/18/2003	68	1.8325089	0	0	1.47
72737	022-3	022	avian	Bird	2/18/2003	88	1.9444827	0	0	1.47
72784	022-1	022	avian	Bird	2/18/2003	76	1.8808136	0	0	1.47
72785	022-1	022	avian	Bird	2/18/2003	76	1.8808136	0	0	1.47
72786	022-1	022	avian	Bird	2/18/2003	76	1.8808136	0	0	1.47
72787	022-1	022	avian	Bird	2/18/2003	76	1.8808136	0	0	1.47
72791	022-2	022	avian	Bird	2/18/2003	68	1.8325089	0	0	1.47
72792	022-3	022	avian	Bird	2/18/2003	88	1.9444827	0	0	1.47
72795	022-3	022	avian	Bird	2/18/2003	88	1.9444827	0	0	1.47
72727	022-1	022	Bovine	Cow	2/18/2003	76	1.8808136	0	0	1.47
72794	022-3	022	bovine	Cow	2/18/2003	88	1.9444827	0	0	1.47

Isolate	Provider Sample	Stantum	Note	Source	Sample Date	Fe. Coli	Log FC	RAIN-1	RAIN-3	RAIN-7
72729	022-1	022	dog	Dog	2/18/2003	76	1.8808136	0	0	1.47
72731	022-2	022	human	Human	2/18/2003	68	1.8325089	0	0	1.47
72732	022-2	022	septage/ human	Human	2/18/2003	68	1.8325089	0	0	1.47
72734	022-3	022	raw sewage	Human	2/18/2003	88	1.9444827	0	0	1.47
72788	022-2	022	raw sewage	Human	2/18/2003	68	1.8325089	0	0	1.47
72789	022-2	022	raw sewage	Human	2/18/2003	68	1.8325089	0	0	1.47
72790	022-2	022	septage/ human	Human	2/18/2003	68	1.8325089	0	0	1.47
72793	022-3	022	human	Human	2/18/2003	88	1.9444827	0	0	1.47
72735	022-3	022	rodent	Rodent	2/18/2003	88	1.9444827	0	0	1.47
72736	022-3	022	rodent	Rodent	2/18/2003	88	1.9444827	0	0	1.47
73184	022-1	022	avian	Bird	3/18/2003	60	1.7781513	0	0.39	2.08
73189	022-2	022	avian	Bird	3/18/2003	70	1.845098	0	0.39	2.08
73192	022-2	022	avian	Bird	3/18/2003	70	1.845098	0	0.39	2.08
73193	022-2	022	avian	Bird	3/18/2003	70	1.845098	0	0.39	2.08
73180	022-1	022	dog	Dog	3/18/2003	60	1.7781513	0	0.39	2.08
73181	022-1	022	dog	Dog	3/18/2003	60	1.7781513	0	0.39	2.08
73185	022-1	022	dog	Dog	3/18/2003	60	1.7781513	0	0.39	2.08
73179	022-1	022	septage/ human	Human	3/18/2003	60	1.7781513	0	0.39	2.08
73188	022-2	022	human	Human	3/18/2003	70	1.845098	0	0.39	2.08
73199	022-3	022	human	Human	3/18/2003	50	1.69897	0	0.39	2.08
73186	022-1	022	rodent	Rodent	3/18/2003	60	1.7781513	0	0.39	2.08
73187	022-1	022	rodent	Rodent	3/18/2003	60	1.7781513	0	0.39	2.08
73195	022-3	022	rodent	Rodent	3/18/2003	50	1.69897	0	0.39	2.08
73183	022-1	022	unknown	Unknown	3/18/2003	60	1.7781513	0	0.39	2.08
73191	022-2	022	unknown	Unknown	3/18/2003	70	1.845098	0	0.39	2.08
73182	022-1	022	raccoon	Wildlife	3/18/2003	60	1.7781513	0	0.39	2.08
73190	022-2	022	otter	Wildlife	3/18/2003	70	1.845098	0	0.39	2.08
73194	022-2	022	otter	Wildlife	3/18/2003	70	1.845098	0	0.39	2.08
73196	022-3	022	otter	Wildlife	3/18/2003	50	1.69897	0	0.39	2.08
73197	022-3	022	otter	Wildlife	3/18/2003	50	1.69897	0	0.39	2.08
73198	022-3	022	raccoon	Wildlife	3/18/2003	50	1.69897	0	0.39	2.08
73200	022-3	022	deer	Wildlife	3/18/2003	50	1.69897	0	0.39	2.08
73201	022-3	022	otter	Wildlife	3/18/2003	50	1.69897	0	0.39	2.08
73202	022-3	022	otter	Wildlife	3/18/2003	50	1.69897	0	0.39	2.08
85264	022	022	avian	Bird	10/18/2003	72	1.8573325		0	0
85266	022 rep	022	avian	Bird	10/18/2003	92	1.9637878		0	0
85267	022 rep	022	avian	Bird	10/18/2003	92	1.9637878		0	0
85265	022 rep	022	canine	Dog	10/18/2003	92	1.9637878		0	0

Isolate	Provider Sample	Stantum	Note	Source	Sample Date	Fe. Coli	Log FC	RAIN-1	RAIN-3	RAIN-7
85263	022	022	horse	Horse	10/18/2003	72	1.8573325		0	0
84949	022-1	022	avian	Bird	10/21/2003	10	1		0	0
84954	022-2	022	avian	Bird	10/21/2003	60	1.7781513		0	0
84950	022-1	022	canine	Dog	10/21/2003	10	1		0	0
84953	022-2	022	canine	Dog	10/21/2003	60	1.7781513		0	0
84951	022-2	022	rodent	Rodent	10/21/2003	60	1.7781513		0	0
84952	022-2	022	rodent	Rodent	10/21/2003	60	1.7781513		0	0
85585	022-1	022	avian	Bird	11/5/2003	60	1.7781513	0.39	0.39	1.2
85586	022-1	022	avian	Bird	11/5/2003	60	1.7781513	0.39	0.39	1.2
85588	022-2	022	avian	Bird	11/5/2003	60	1.7781513	0.39	0.39	1.2
85589	022-2	022	human	Human	11/5/2003	60	1.7781513	0.39	0.39	1.2
85584	022-1	022	rodent	Rodent	11/5/2003	60	1.7781513	0.39	0.39	1.2
85587	022-2	022	rodent	Rodent	11/5/2003	60	1.7781513	0.39	0.39	1.2
86555	12-08-03-22A	022	avian	Bird	12/8/2003	150	2.1760913		1.31	1.64
86556	12-08-03-22A	022	gull	Bird	12/8/2003	150	2.1760913		1.31	1.64
86558	12-08-03-22B	022	avian	Bird	12/8/2003	200	2.30103		1.31	1.64
86557	12-08-03-22A	022	sewage	Human	12/8/2003	150	2.1760913		1.31	1.64
86559	12-08-03-22B	022	sewage	Human	12/8/2003	200	2.30103		1.31	1.64
86560	12-08-03-22B	022	raccoon	Wildlife	12/8/2003	200	2.30103		1.31	1.64
97655	07-20-2004-022-1	022	avian	Bird	7/20/2004	44	1.6434527	0	0	0
97656	07-20-2004-022-1	022	avian	Bird	7/20/2004	44	1.6434527	0	0	0
97660	07-20-2004-022-2	022	avian	Bird	7/20/2004	64	1.80618	0	0	0
97661	07-20-2004-022-2	022	avian	Bird	7/20/2004	64	1.80618	0	0	0
97662	07-20-2004-022-3	022	avian	Bird	7/20/2004	64	1.80618	0	0	0
97664	07-20-2004-022-3	022	avian	Bird	7/20/2004	64	1.80618	0	0	0
97658	07-20-2004-022-2	022	Rodent	Rodent	7/20/2004	64	1.80618	0	0	0

Isolate	Provider Sample	Stantum	Note	Source	Sample Date	Fe. Coli	Log FC	RAIN-1	RAIN-3	RAIN-7
97659	07-20-2004-022-2	022	rodent	Rodent	7/20/2004	64	1.80618	0	0	0
97657	07-20-2004-022-1	022	Unknown	Unknown	7/20/2004	44	1.6434527	0	0	0
97663	07-20-2004-022-3	022	Unknown	Unknown	7/20/2004	64	1.80618	0	0	0
99416	8-04-04-022-1	022	avian	Bird	8/4/2004	72	1.8573325	0	0	0
99417	8-04-04-022-1	022	avian	Bird	8/4/2004	72	1.8573325	0	0	0
99418	8-04-04-022-1	022	avian	Bird	8/4/2004	72	1.8573325	0	0	0
99421	8-04-04-022-2	022	avian	Bird	8/4/2004	68	1.8325089	0	0	0
99422	8-04-04-022-2	022	avian	Bird	8/4/2004	68	1.8325089	0	0	0
99423	8-04-04-022-3	022	avian	Bird	8/4/2004	80	1.90309	0	0	0
99424	8-04-04-022-3	022	avian	Bird	8/4/2004	80	1.90309	0	0	0
99419	8-04-04-022-2	022	Unknown	Unknown	8/4/2004	68	1.8325089	0	0	0
99420	8-04-04-022-2	022	Raccoon	Wildlife	8/4/2004	68	1.8325089	0	0	0
99425	8-04-04-022-3	022	Raccoon	Wildlife	8/4/2004	80	1.90309	0	0	0