Appendix D: Solids
Table 29d: Summary of Barney Barnes Field LAL Samples - >6 inches

Parameter	n	Units	Percent Detected	Dry Weight Min	Dry Weight Max	Dry Weight Avg	Dry Weight Standard Deviation	Wet Weight Min	Wet Weight Max	Wet Weight Avg	Wet Weight Standard Deviation
Campylobacter species	1	MPN*/gram	0/1 (0%)					0.1	0.1	0.1	
E. coli	1	MPN*/gram	0/1 (0%)					0.1	0.1	0.1	
Enterococcus Group	1	MPN*/gram	1/1 (100%)					24000	24000	24000	
Fecal Coliform	1	MPN*/gram	1/1 (100%)					11	11	11	
Salmonella species	1	MPN*/gram	0/1 (0%)					0.1	0.1	0.1	
Staphylococcus aureus	1	MPN*/gram	0/1 (0%)					0.1	0.1	0.1	
Total Coliform	1	MPN*/gram	1/1 (100%)					18000	18000	18000	
Chloride (Water Soluble)	1	mg/Kg	1/1 (100%)	50.2668	50.2668	50.2668		47.1	47.1	47.1	
17a-estradiol	1	ng/g	0/1 (0%)	3.3351	3.3351	3.3351		3.125	3.125	3.125	
17b-estradiol	1	ng/g	0/1 (0%)	3.3351	3.3351	3.3351		3.125	3.125	3.125	
Estriol	1	ng/g	0/1 (0%)	3.3351	3.3351	3.3351		3.125	3.125	3.125	
Estrone	1	ng/g	0/1 (0%)	3.3351	3.3351	3.3351		3.125	3.125	3.125	
Total Aluminum	2	mg/Kg	2/2 (100%)	4983.992	4983.992	4983.99		4670	7560	6115	2043.5386
Total Antimony	2	mg/Kg	1/2 (50%)	0.2668	0.2668	0.2668		0.25	72.5	36.375	51.0885
Total Arsenic	2	mg/Kg	2/2 (100%)	5.8378	5.8378	5.8378		5.47	109	57.235	73.2068
Total Barium	2	mg/Kg	2/2 (100%)	59.3383	59.3383	59.3383		55.6	240	147.8	130.3905
Total Beryllium	2	mg/Kg	1/2 (50%)	0.2668	0.2668	0.2668		0.25	44.4	22.325	31.2188
Total Cadmium	2	mg/Kg	1/2 (50%)	0.2668	0.2668	0.2668		0.25	71	35.625	50.0278
Total Calcium	2	mg/Kg	2/2 (100%)	1611.526	1611.526	1611.53		1510	3330	2420	1286.9343
Total Chromium	2	mg/Kg	2/2 (100%)	18.7834	18.7834	18.7834		17.6	82.3	49.95	45.7498
Total Cobalt	2	mg/Kg	2/2 (100%)	1.8356	1.8356	1.8356		1.72	53.7	27.71	36.7554
Total Copper	2	mg/Kg	2/2 (100%)	29.2423	29.2423	29.2423		27.4	51.8	39.6	17.2534
Total Iron	2	mg/Kg	2/2 (100%)	13874.07	13874.07	13874.1		13000	14000	13500	707.1068
Total Lead	2	mg/Kg	2/2 (100%)	17.3959	17.3959	17.3959		16.3	100	58.15	59.1848
Total Magnesium	2	mg/Kg	2/2 (100%)	512.2732	512.2732	512.273		480	2400	1440	1357.645
Total Manganese	2	mg/Kg	2/2 (100%)	196.3714	196.3714	196.371		184	473	328.5	204.3539
Total Mercury	2	mg/Kg	2/2 (100%)	0.0215	0.0215	0.0215		0.0201	0.0421	0.0311	0.0156
Total Molybdenum	2	mg/Kg	1/2 (50%)	1.334	1.334	1.334		1.25	36.5	18.875	24.9255
Total Nickel	2	mg/Kg	2/2 (100%)	3.2551	3.2551	3.2551		3.05	57.2	30.125	38.2898
Total Potassium	2	mg/Kg	2/2 (100%)	543.2231	543.2231	543.223		509	3080	1794.5	1817.9715
Total Selenium	2	mg/Kg	1/2 (50%)	0.2668	0.2668	0.2668		0.25	106	53.125	74.7765
Total Silver	2	mg/Kg	1/2 (50%)	0.2668	0.2668	0.2668		0.25	95.2	47.725	67.1398

NOTES:
(1) Non-detects treated as 1/2 the detection limit for min/max/avg/st. dev calculations

Appendix D: Solids
Table 29d: Summary of Barney Barnes Field LAL Samples - >6 inches

Parameter	n	Units	Percent Detected	Dry Weight Min	Dry Weight Max	Dry Weight Avg	Dry Weight Standard Deviation	Wet Weight Min	Wet Weight Max	Wet Weight Avg	Wet Weight Standard Deviation
Total Sodium	2	mg/Kg	2/2 (100%)	80.0427	80.0427	80.0427		75	842	458.5	542.3509
Total Thallium	2	mg/Kg	1/2 (50%)	0.2668	0.2668	0.2668		0.25	117	58.625	82.5547
Total Vanadium	2	mg/Kg	2/2 (100%)	31.4835	31.4835	31.4835		29.5	78.9	54.2	34.9311
Total Zinc	2	mg/Kg	2/2 (100%)	35.3255	35.3255	35.3255		33.1	236	134.55	143.472
Ammonium (Water Soluble)	1	mg/Kg	1/1 (100%)	28.8154	28.8154	28.8154		27	27	27	
Nitrate-N (Water Soluble)	1	mg/Kg	1/1 (100%)	37.5667	37.5667	37.5667		35.2	35.2	35.2	
Nitrogen Ammoniacal	1	mg/Kg	1/1 (100%)					22	22	22	
Nitrogen Total (Inorganic + Organic)	2	mg/Kg	2/2 (100%)	2209.178	2209.178	2209.18		846	2070	1458	865.4987
Organic Matter	2	%	2/2 (100%)	0.93	4.8	2.865	2.7365	0.93	4.8	2.865	2.7365
Phosphorus (Mehlich 3)	1	mg/Kg	1/1 (100%)	351.1206	351.1206	351.121		329	329	329	
Phosphorus (Water Soluble)	1	mg/Kg	1/1 (100%)	25.6137	25.6137	25.6137		24	24	24	
Total P (6020)	2	mg/Kg	2/2 (100%)	741.7289	741.7289	741.729		695	731	713	25.4558
%Clay	1	%	1/1 (100%)	24	24	24		24	24	24	
%Sand	1	%	1/1 (100%)	44	44	44		44	44	44	
%Silt	1	%	1/1 (100%)	32	32	32		32	32	32	
Moisture	1	%	1/1 (100%)	6.26	6.26	6.26		6.26	6.26	6.26	
Solids Total	1	%	1/1 (100%)	93.7	93.7	93.7		93.7	93.7	93.7	
Soluble Salts (1:2)	1	mmhos/cm	1/1 (100%)	0.988	0.988	0.988		0.988	0.988	0.988	
Sulfate (Water Soluble)	1	mg/Kg	1/1 (100%)	38.7407	38.7407	38.7407		36.3	36.3	36.3	
pH	1	s.u.	1/1 (100%)	6	6	6		6	6	6	

NOTES:
(1) Non-detects treated as 1/2 the detection limit for min/max/avg/st. dev calculations

Appendix D: Solids
Table 29e: Summary of Poultry Waste FAC SAmples from Barney Barnes Property

Parameter	n	Units	Percent Detected	Dry Weight Min	Dry Weight Max	Dry Weight Avg	Dry Weight Standard Deviation	Wet Weight Min	Wet Weight Max	Wet Weight Avg	Wet Weight Standard Deviation
Campylobacter species	3	MPN*/gram	0/3 (0%)	0.106	0.135	0.1248	0.0162	0.1	0.1	0.1	0
E. coli	3	MPN*/gram	3/3 (100%)	6533.333	57264.05	23470.0	29266.513	4900	54000	21266.7	28347.898
Enterococcus Group	3	MPN*/gram	3/3 (100%)	455.9915	213333.3	88357.1	111176.04	430	160000	66143.3	83424.706
Fecal Coliform	3	MPN*/gram	3/3 (100%)	6533.333	97560.98	40546.1	49682.328	4900	92000	36633.3	48119.677
Salmonella species	3	MPN*/gram	2/3 (67%)	0.135	2.439	0.9469	1.2939	0.1	2.3	0.8667	1.2423
Staphylococcus aureus	3	MPN*/gram	0/3 (0%)	0.106	0.135	0.1248	0.0162	0.1	0.1	0.1	0
Total Coliform	3	MPN*/gram	3/3 (100%)	6533.333	97560.98	40546.1	49682.328	4900	92000	36633.3	48119.677
Chloride (Water Soluble)	3	mg/Kg	3/3 (100%)	3238.866	3849.417	3473.87	328.6431	2400	3630	2843.33	683.1057
17a-estradiol	3	ng/g	3/3 (100%)	23.5207	80	61.0476	32.4998	22.18	60	47.06	21.5525
17b-estradiol	3	ng/g	0/3 (0%)	3.3139	4.2173	3.8993	0.5076	3.125	3.125	3.125	0
Estriol	3	ng/g	0/3 (0%)	3.3139	4.2173	3.8993	0.5076	3.125	3.125	3.125	0
Estrone	3	ng/g	2/3 (67%)	4.1667	43.5223	27.6496	20.7522	3.125	33.25	22.875	17.1113
Total Aluminum	3	mg/Kg	3/3 (100%)	640.509	1646.424	1264.53	544.9198	604	1220	984.667	332.7241
Total Antimony	3	mg/Kg	0/3 (0%)	0.2651	0.3374	0.3119	0.0406	0.25	0.25	0.25	0
Total Arsenic	3	mg/Kg	3/3 (100%)	39.8727	48.583	43.9297	4.3856	32.5	37.6	35.3667	2.6083
Total Barium	3	mg/Kg	3/3 (100%)	28.632	38.0567	33.6073	4.7343	25.6	28.2	26.9333	1.3013
Total Beryllium	3	mg/Kg	0/3 (0%)	0.2651	0.3374	0.3119	0.0406	0.25	0.25	0.25	0
Total Cadmium	3	mg/Kg	0/3 (0%)	0.2651	0.3374	0.3119	0.0406	0.25	0.25	0.25	0
Total Calcium	3	mg/Kg	3/3 (100%)	31200	39001.35	33863.5	4450.504	23400	29600	27300	3395.5854
Total Chromium	3	mg/Kg	3/3 (100%)	7.3489	10.4049	8.8779	1.528	6.66	7.71	7.1	0.5453
Total Cobalt	3	mg/Kg	3/3 (100%)	1.2407	1.5385	1.3797	0.1498	1.02	1.17	1.11	0.0794
Total Copper	3	mg/Kg	3/3 (100%)	459.1729	597.8408	530.116	69.3899	400	443	425.333	22.5019
Total Iron	3	mg/Kg	3/3 (100%)	1417.004	1474.019	1448.12	28.863	1050	1390	1176.67	185.8315
Total Lead	3	mg/Kg	3/3 (100%)	0.6702	1.5655	1.2297	0.4877	0.632	1.16	0.9607	0.2868
Total Magnesium	3	mg/Kg	3/3 (100%)	5980.912	7435.897	6538.94	784.477	4650	5640	5266.67	537.9901
Total Manganese	3	mg/Kg	3/3 (100%)	660.6575	835.3576	741.338	88.1106	546	623	596	43.3474
Total Mercury	3	mg/Kg	0/3 (0%)	0.0033	0.0044	0.004	0.0006	0.0032	0.0032	0.0032	0.0001
Total Molybdenum	3	mg/Kg	3/3 (100%)	3.5419	4.5749	4.1634	0.5476	3.28	3.39	3.3367	0.0551
Total Nickel	3	mg/Kg	3/3 (100%)	13.2556	15.1147	14.0345	0.9655	10.3	12.5	11.3333	1.106
Total Potassium	3	mg/Kg	3/3 (100%)	28933.33	35100.74	31691.1	3134.9637	21700	33100	25933.3	6240.4594
Total Selenium	3	mg/Kg	3/3 (100%)	1.4422	2.5641	2.1132	0.5925	1.36	1.9	1.67	0.2787
Total Silver	3	mg/Kg	0/3 (0%)	0.2651	0.3374	0.3119	0.0406	0.25	0.25	0.25	0

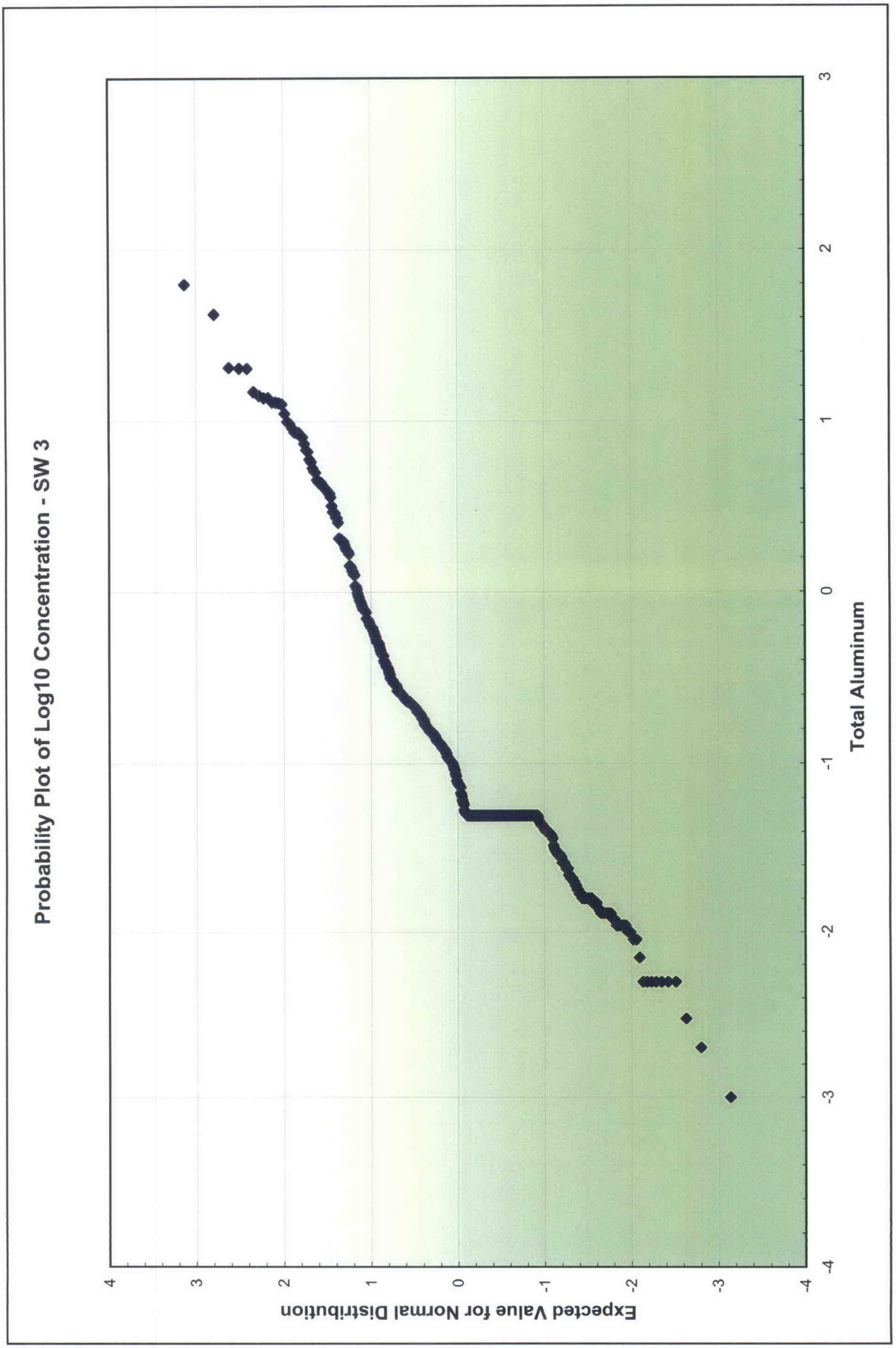
NOTES:
(1) Non-detects treated as 1/2 the detection limit for min/max/avg/st. dev calculations

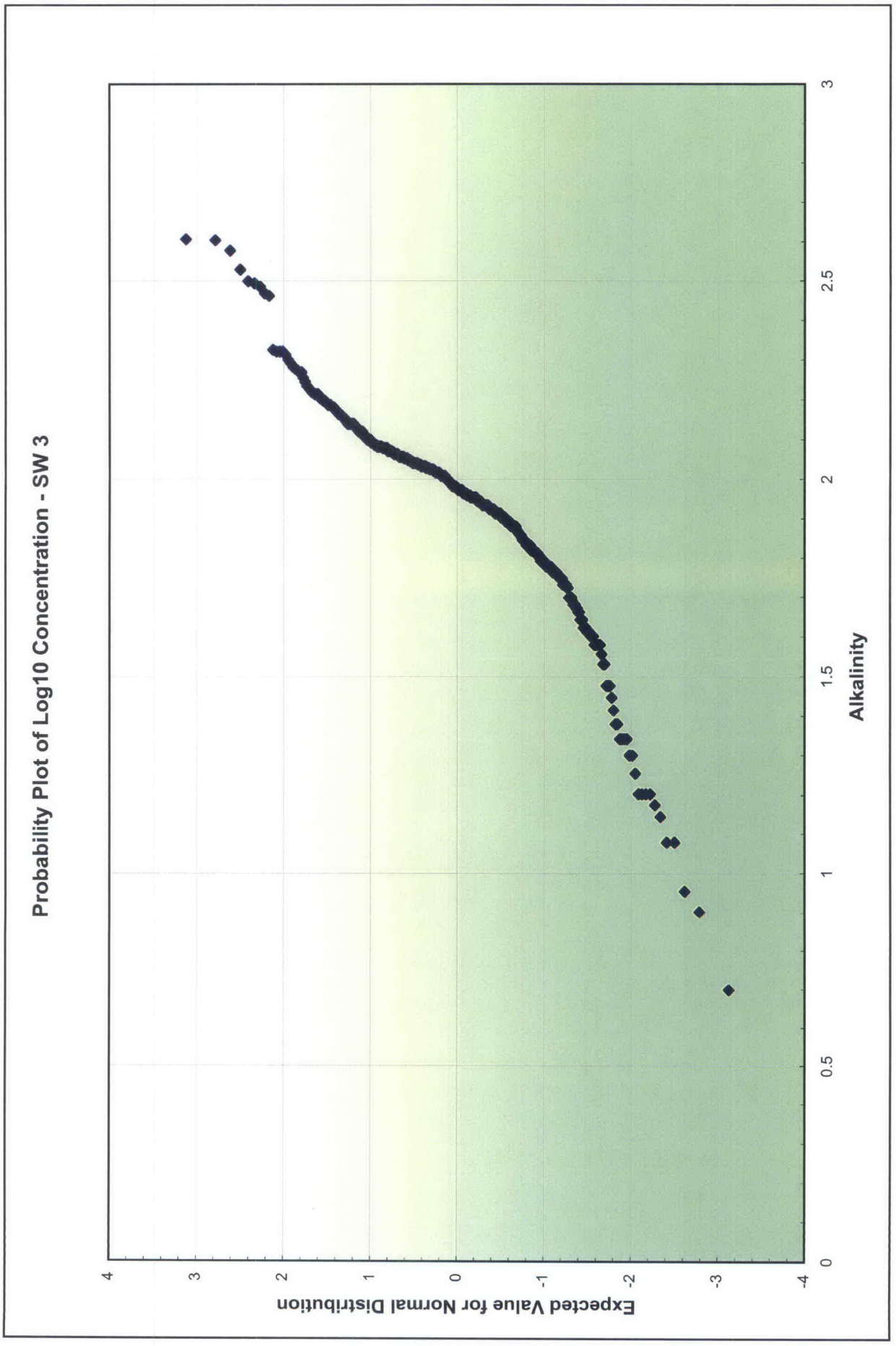
Appendix D: Solids
Table 29e: Summary of Poultry Waste FAC SAmples from Barney Barnes Property

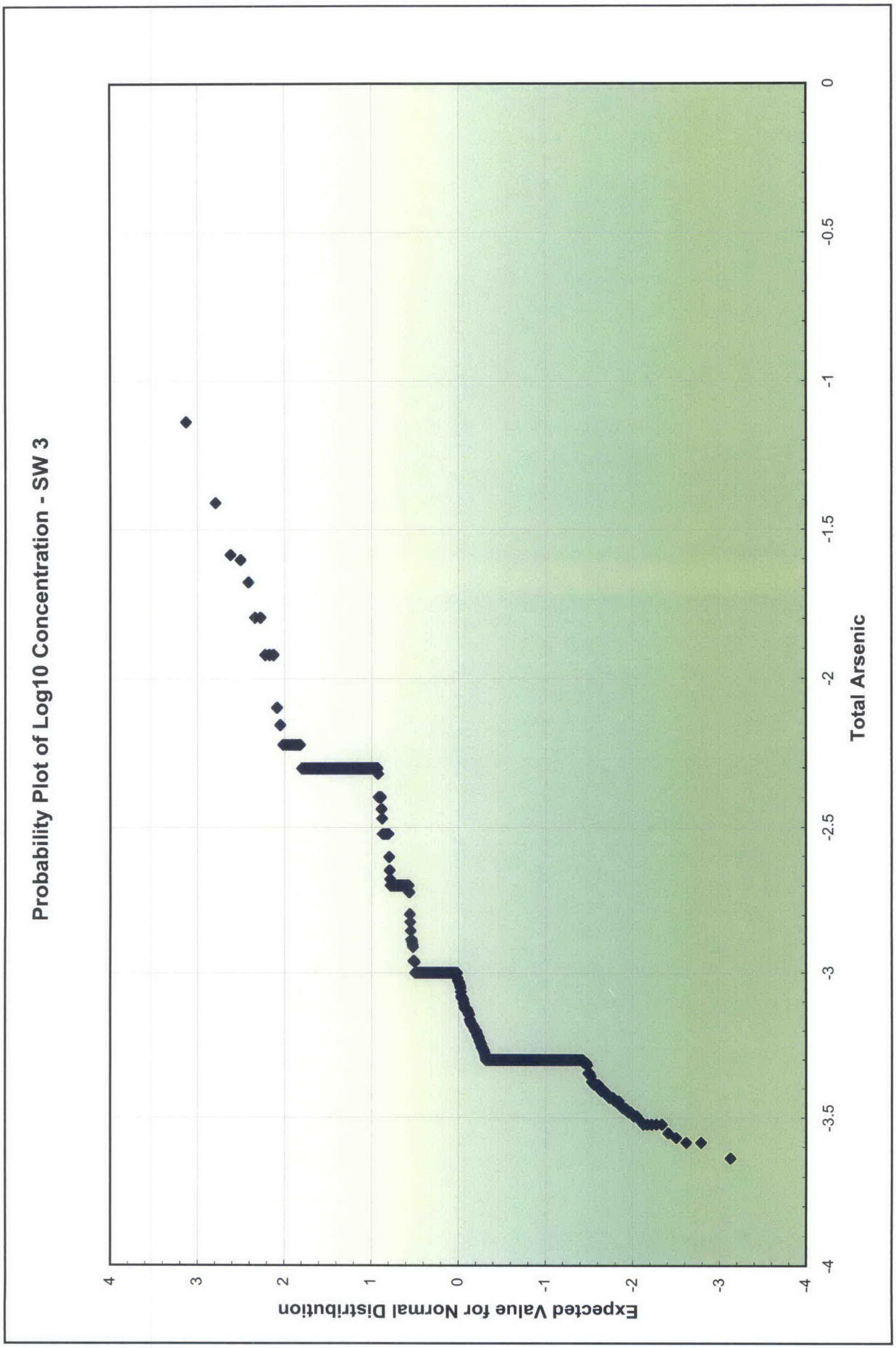
Parameter	n	Units	Percent Detected	Dry Weight Min	Dry Weight Max	Dry Weight Avg	Dry Weight Standard Deviation	Wet Weight Min	Wet Weight Max	Wet Weight Avg	Wet Weight Standard Deviation
Total Sodium	3	mg/Kg	3/3 (100%)	7813.333	8780.488	8360.78	496.0707	5860	8280	6810	1291.0848
Total Thallium	3	mg/Kg	0/3 (0%)	0.2651	0.3374	0.3119	0.0406	0.25	0.25	0.25	0
Total Vanadium	3	mg/Kg	3/3 (100%)	4.6872	6.5182	5.8196	0.9896	4.42	4.83	4.6467	0.2084
Total Zinc	3	mg/Kg	3/3 (100%)	506.8929	661.2686	589.387	77.7331	450	490	472.667	20.5264
Ammonium (Water Soluble)	3	mg/Kg	3/3 (100%)	272.5345	8475.034	5231.41	4361.9747	257	6280	3915.67	3213.3482
Nitrate-N (Water Soluble)	3	mg/Kg	0/3 (0%)	0.5302	3.3738	2.4125	1.6302	0.5	2.5	1.8333	1.1547
Nitrogen Total (Inorganic + Organic)	3	mg/Kg	3/3 (100%)	41145.28	46400	44116.5	2694.0313	33200	38800	35600	2884.441
Organic Matter	1	%	1/1 (100%)	60	60	60		60	60	60	
Organic Matter (Combustion)	2	%	2/2 (100%)	75.4	75.8	75.6	0.2828	75.4	75.8	75.6	0.2828
Phosphorus (Mehlich 3)	3	mg/Kg	3/3 (100%)	3049.841	4558.705	3731.74	764.8212	2690	3378	2981.33	355.8895
Phosphorus (Water Soluble)	3	mg/Kg	3/3 (100%)	829.9595	1569.459	1076.7	426.7463	615	1480	906	497.1147
Total P (6020)	3	mg/Kg	3/3 (100%)	18345.71	26720.65	22488.8	4188.1771	16800	19800	17966.7	1607.2751
%Clay	3	%	3/3 (100%)	22	40	31.3333	9.0185	22	40	31.3333	9.0185
%Sand	3	%	3/3 (100%)	52	66	57.3333	7.5719	52	66	57.3333	7.5719
%Silt	3	%	3/3 (100%)	8	14	11.3333	3.0551	8	14	11.3333	3.0551
Moisture	3	%	3/3 (100%)	5.72	25.9	18.8733	11.4	5.72	25.9	18.8733	11.4
Solids Total	3	%	3/3 (100%)	74.1	94.3	81.1333	11.4115	74.1	94.3	81.1333	11.4115
Soluble Salts (1:2)	3	mmhos/cm	3/3 (100%)	5.36	13.7	9.2567	4.1968	5.36	13.7	9.2567	4.1968
Sulfate (Water Soluble)	3	mg/Kg	3/3 (100%)	2831.389	4170.041	3711.59	762.4952	2670	3100	2953.33	245.4248
pH	3	s.u.	3/3 (100%)	6.8	7.38	7.0267	0.3101	6.8	7.38	7.0267	0.3101

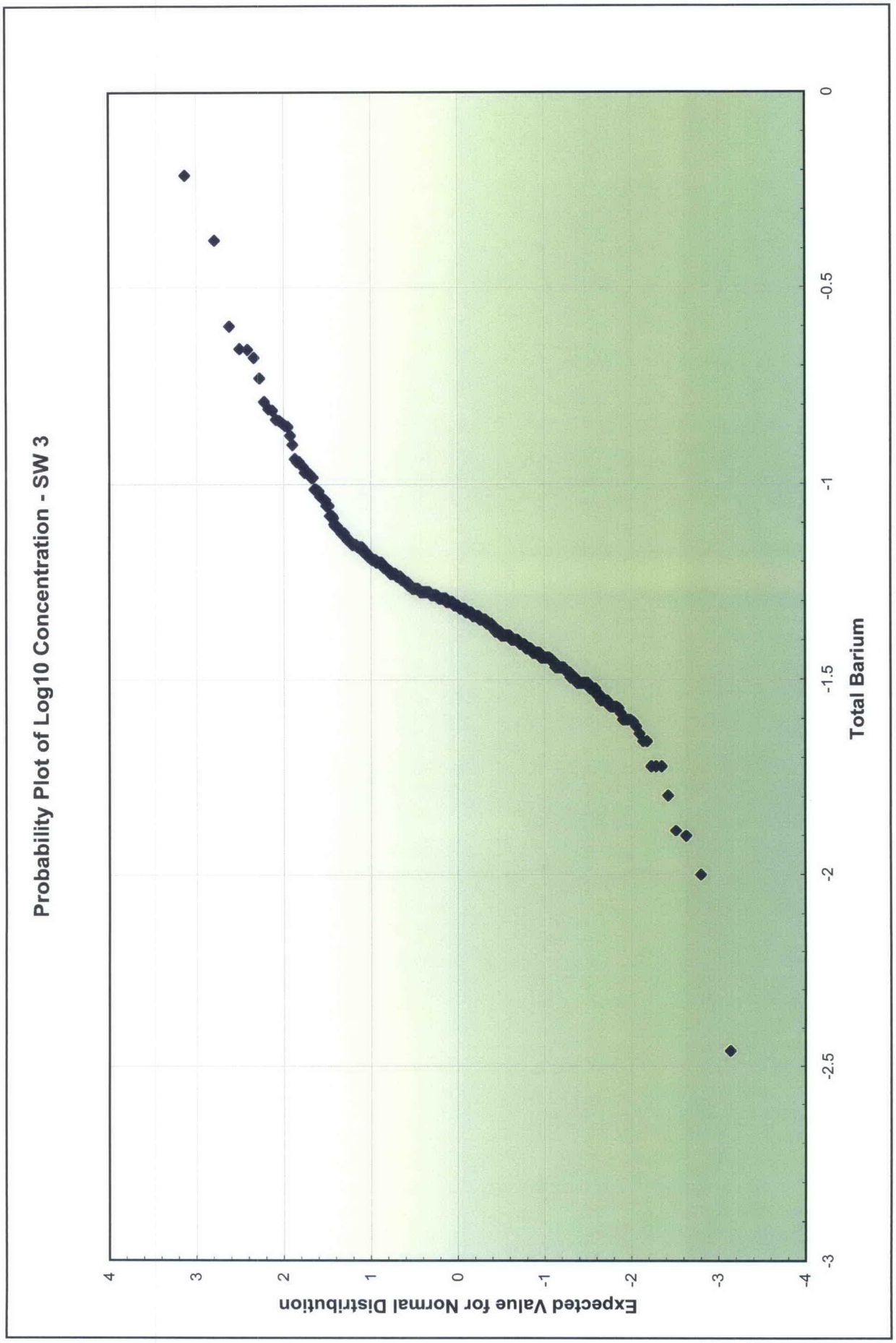
NOTES:
(1) Non-detects treated as 1/2 the detection limit for min/max/avg/st. dev calculations

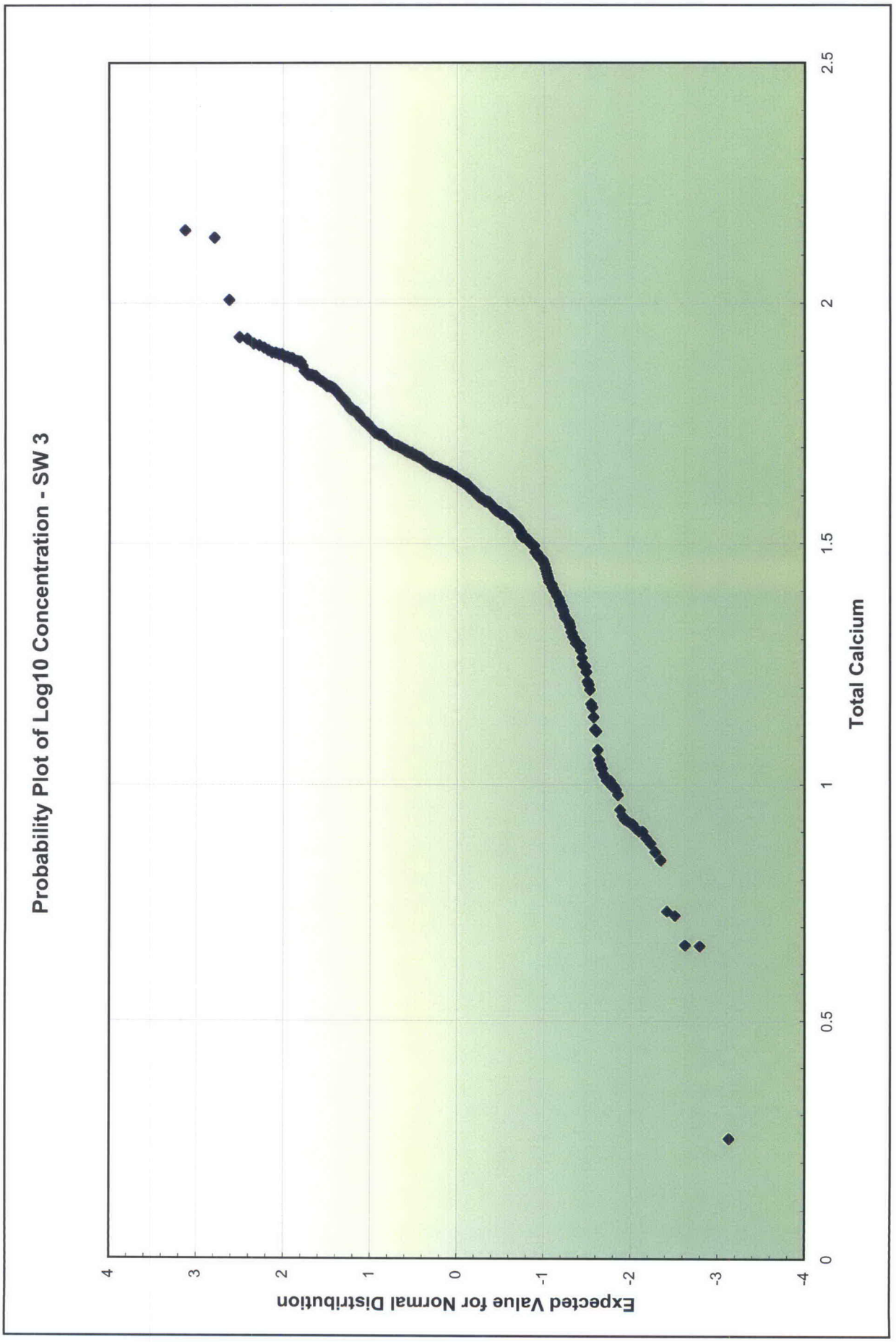
Appendix E
Probability Plots (Run SW3)

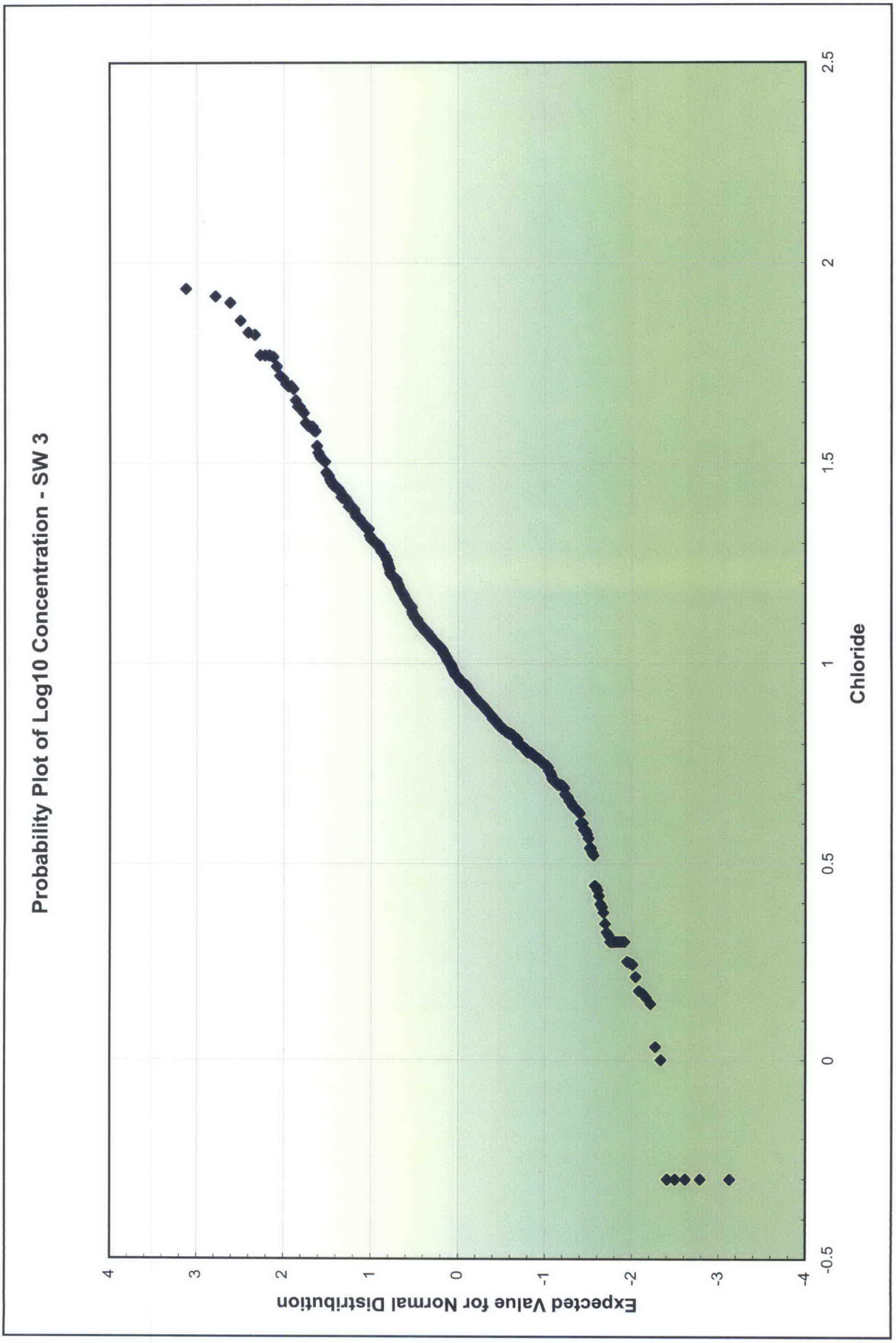

Probability Plot of Log10 Concentration - SW 3
Expected Value for Normal Distribution
4
3
2
1
0
-1
-2
-3
-4
-4
-3
-2
-1
0
1
2
3
Total Aluminum

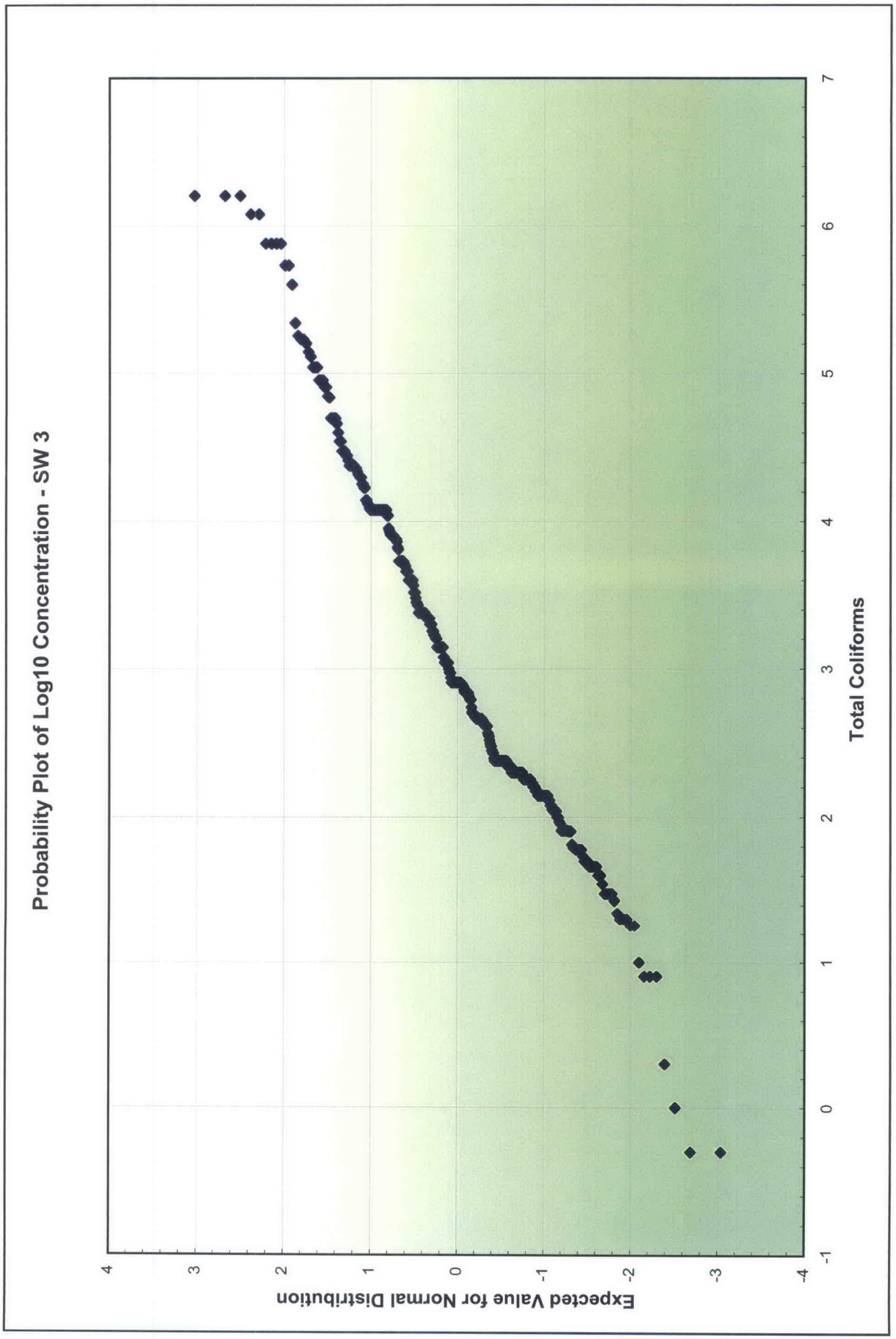

Probability Plot of Log10 Concentration - SW 3
Expected Value for Normal Distribution
4
3
2
1
0
-1
-2
-3
-4
0
0.5
1
1.5
2
2.5
3
Alkalinity


Probability Plot of Log10 Concentration - SW 3
Expected Value for Normal Distribution
4
3
2
1
0
-1
-2
-3
-4
-4
-3.5
-3
-2.5
-2
-1.5
-1
-0.5
0
Total Arsenic


Probability Plot of Log10 Concentration - SW 3
Expected Value for Normal Distribution
4
3
2
1
0
-1
-2
-3
-4
-3
-2.5
-2
-1.5
-1
-0.5
0
Total Barium


Probability Plot of Log10 Concentration - SW 3
Expected Value for Normal Distribution
4
3
2
1
0
-1
-2
-3
-4
0
0.5
1
1.5
2
2.5
Total Calcium


Probability Plot of Log10 Concentration - SW 3
Expected Value for Normal Distribution
4
3
2
1
0
-1
-2
-3
-4
-0.5
0
0.5
1
1.5
2
2.5
Chloride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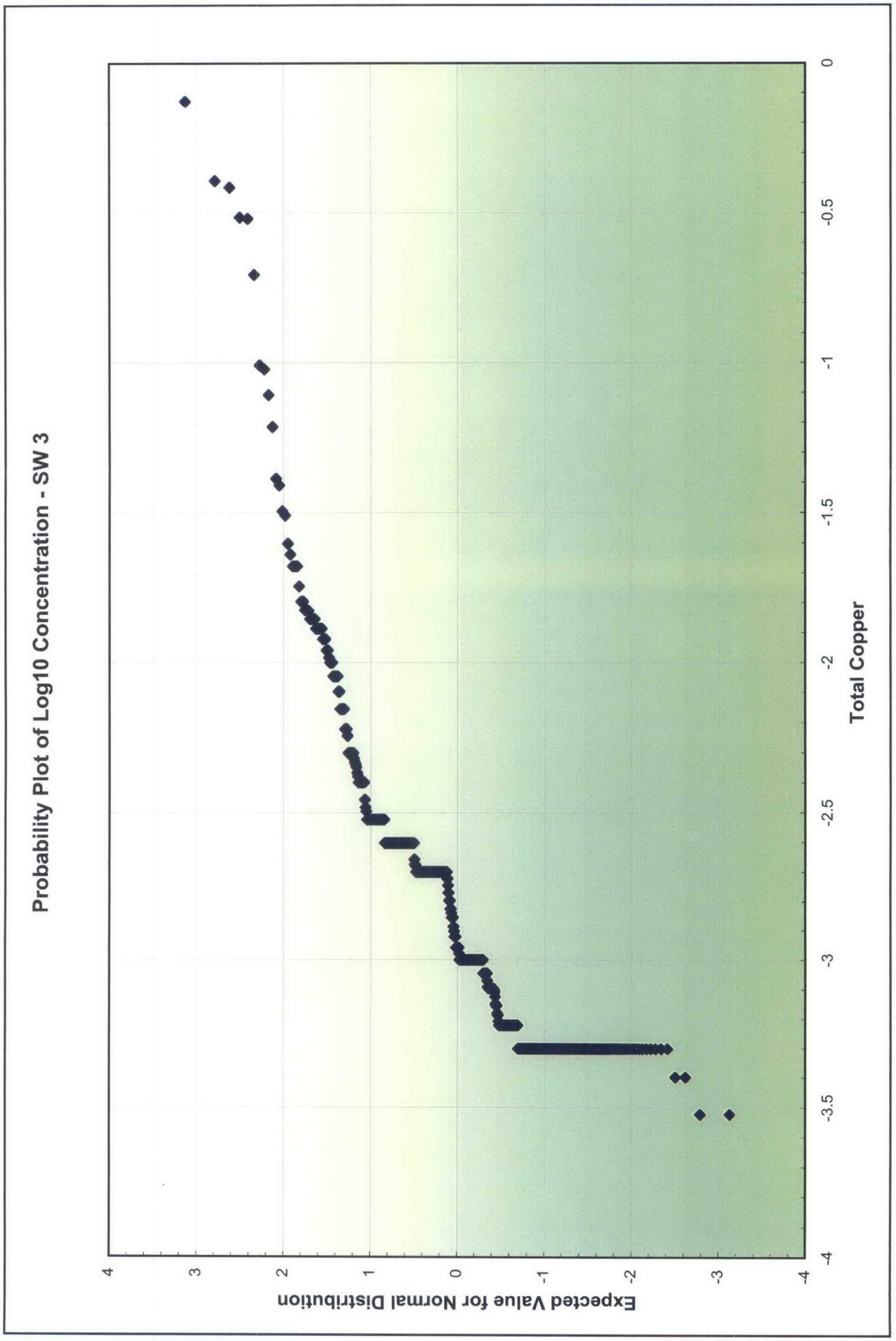
Expected Value for Normal Distribution
4
3
2
1
0
-1
-2
-3
-4
-1
0
1
2
3
4
5
6
7
Total Coliforms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Expected Value for Normal Distribution
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3
2
1
0
-1
-2
-3
-4
-4
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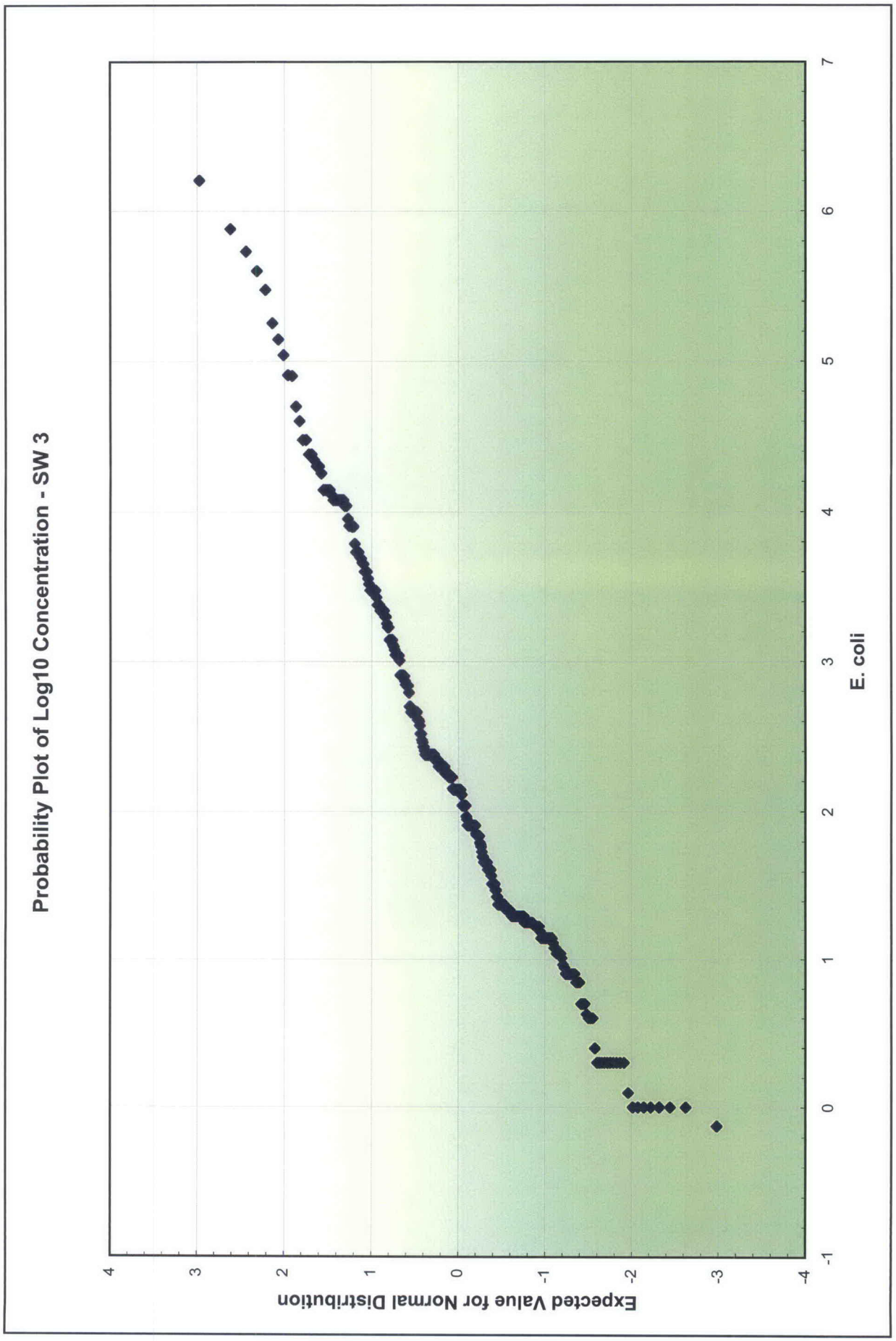
-3
-2.5
-2
-1.5
-1
-0.5
0
Total Copper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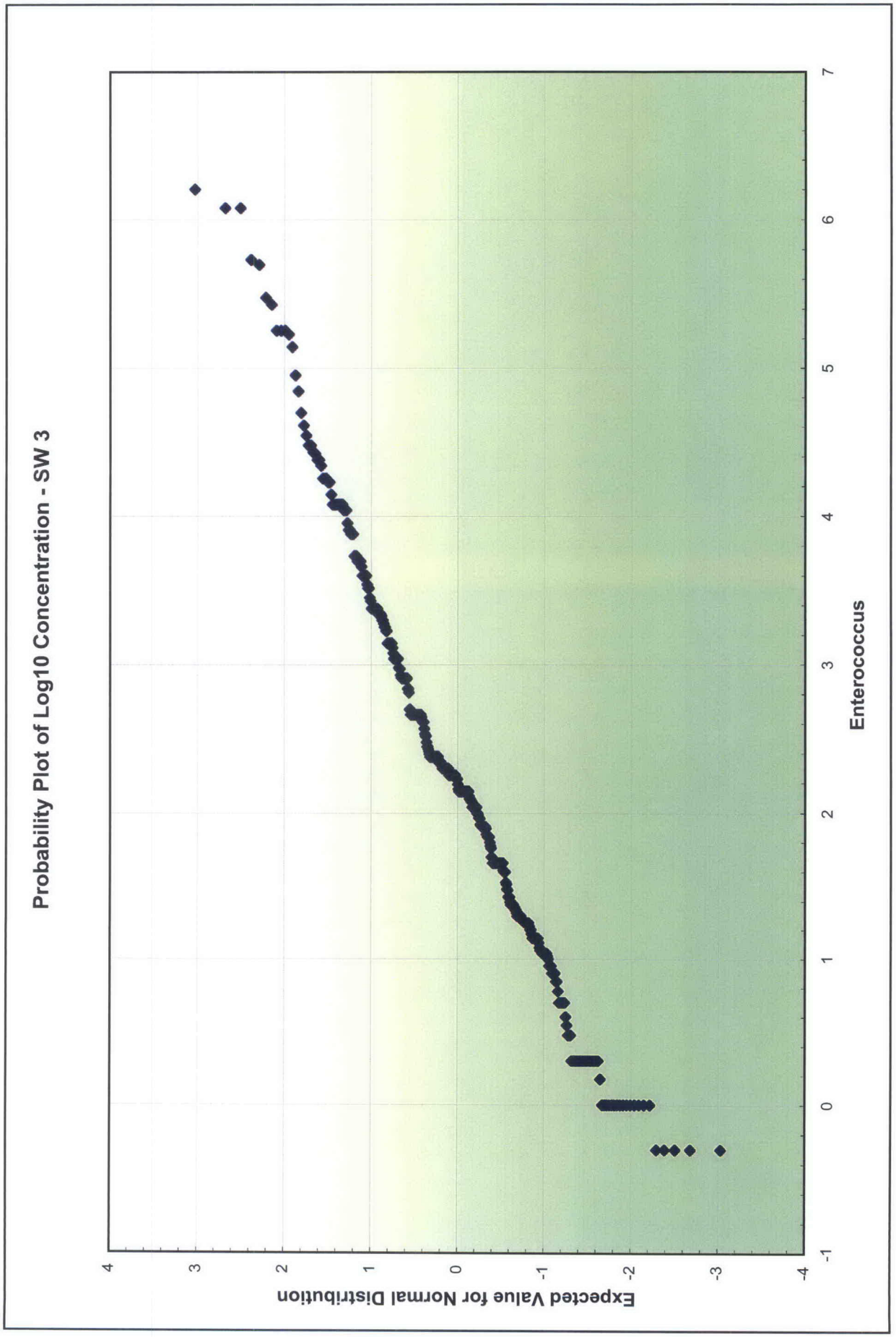
Expected Value for Normal Distribution
4
3
2
1
0
-1
-2
-3
-4
-1
0
1
2
3
4
5
6
7
E. coli


Probability Plot of Log10 Concentration - SW 3
Expected Value for Normal Distribution
4
3
2
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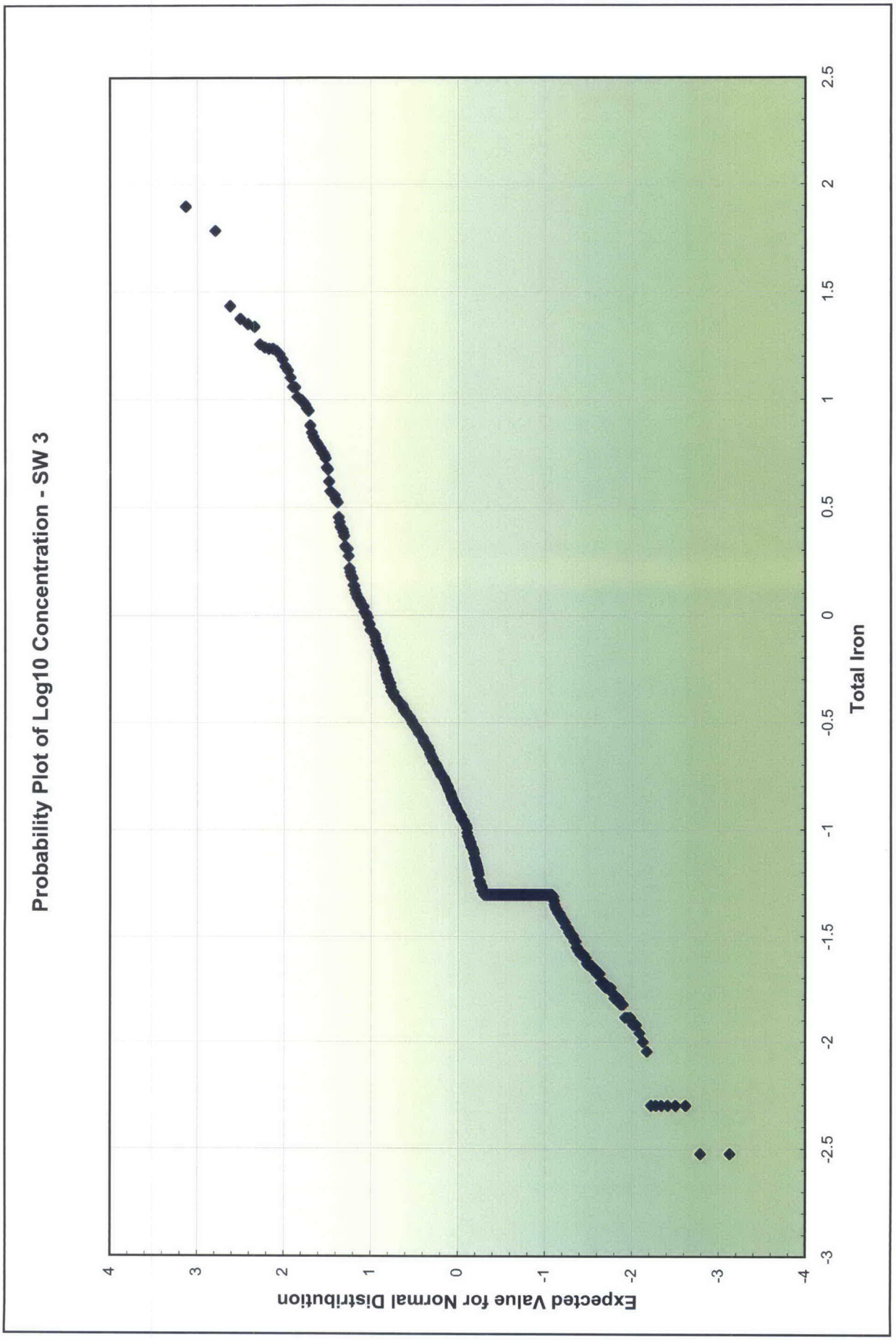
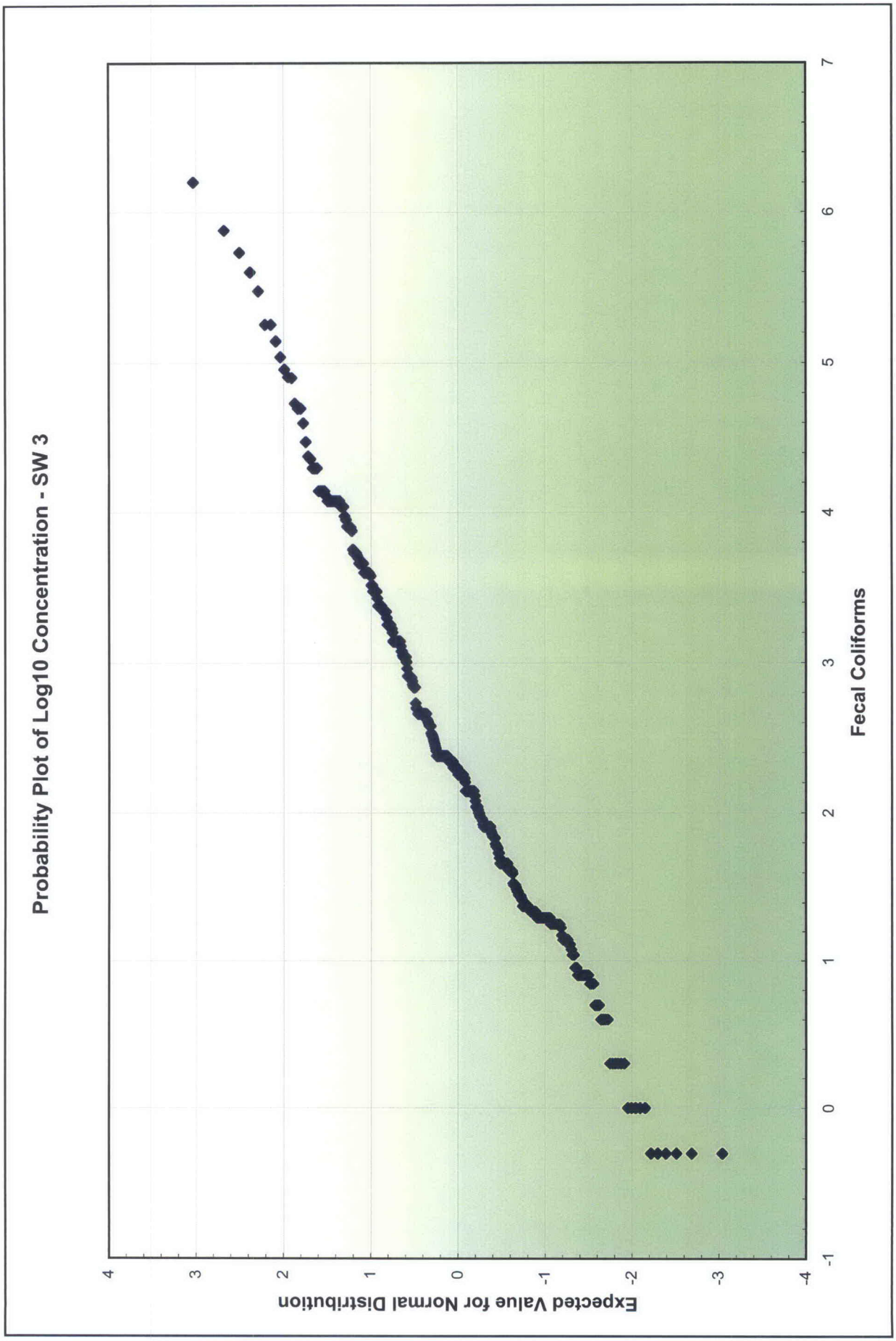
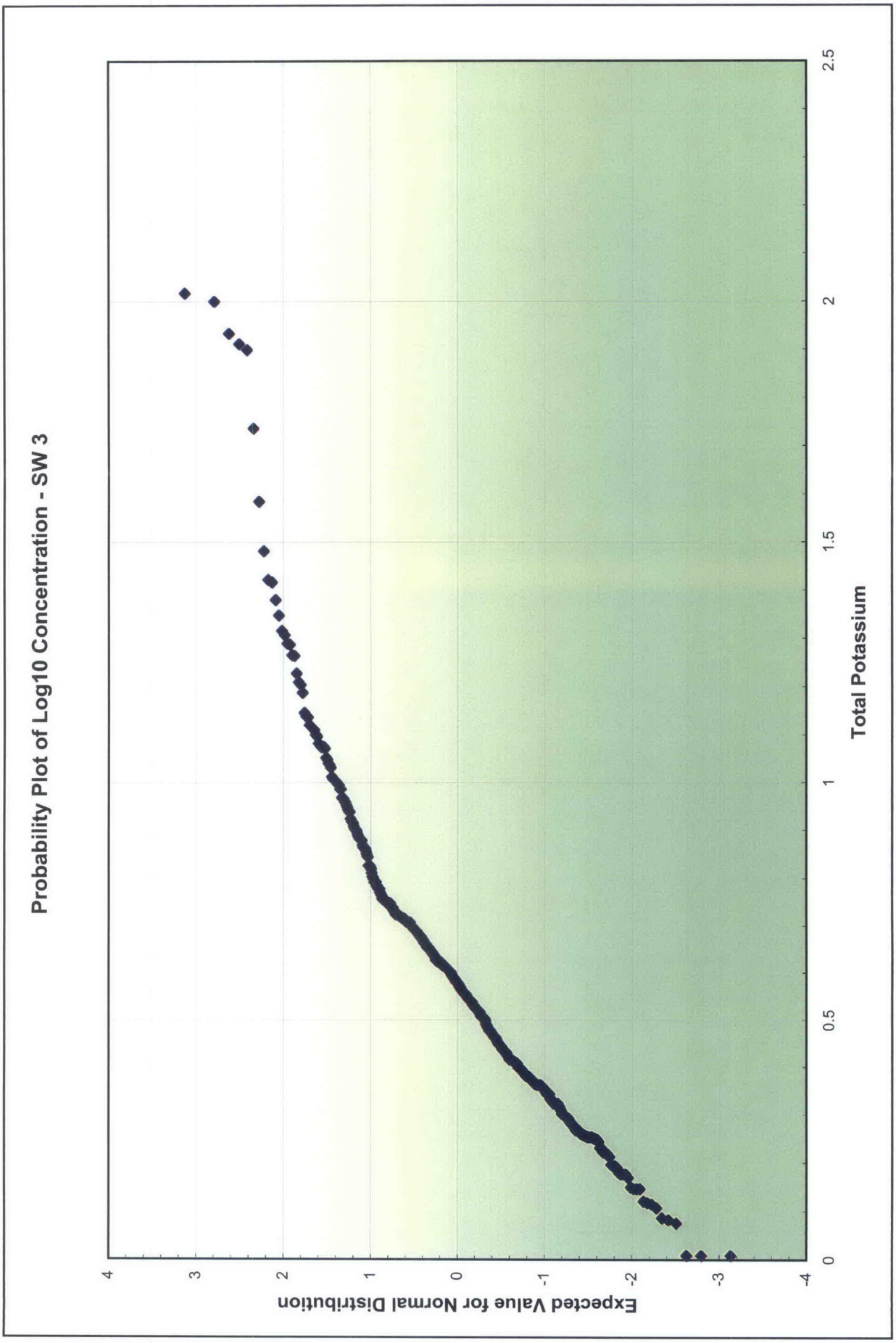
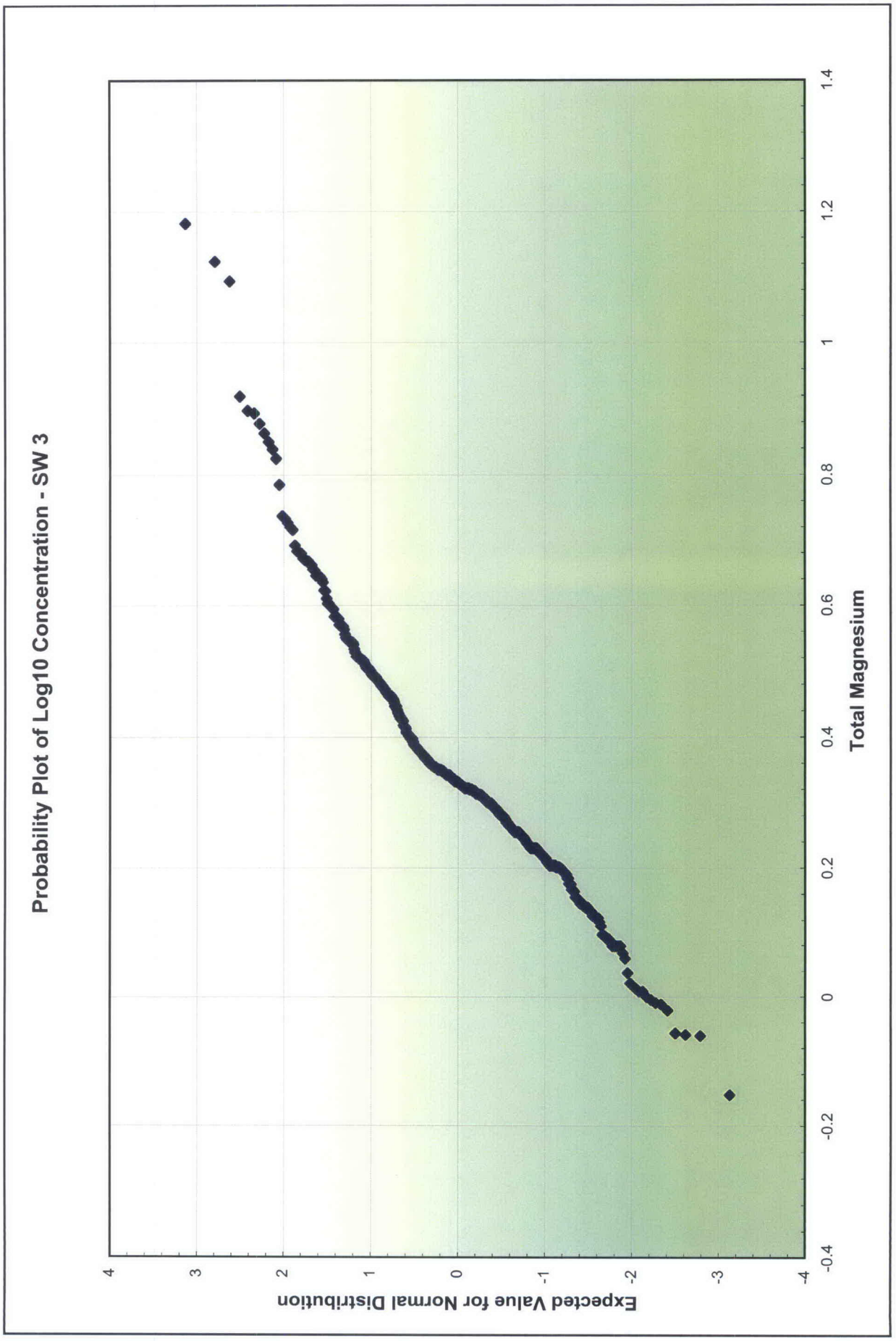
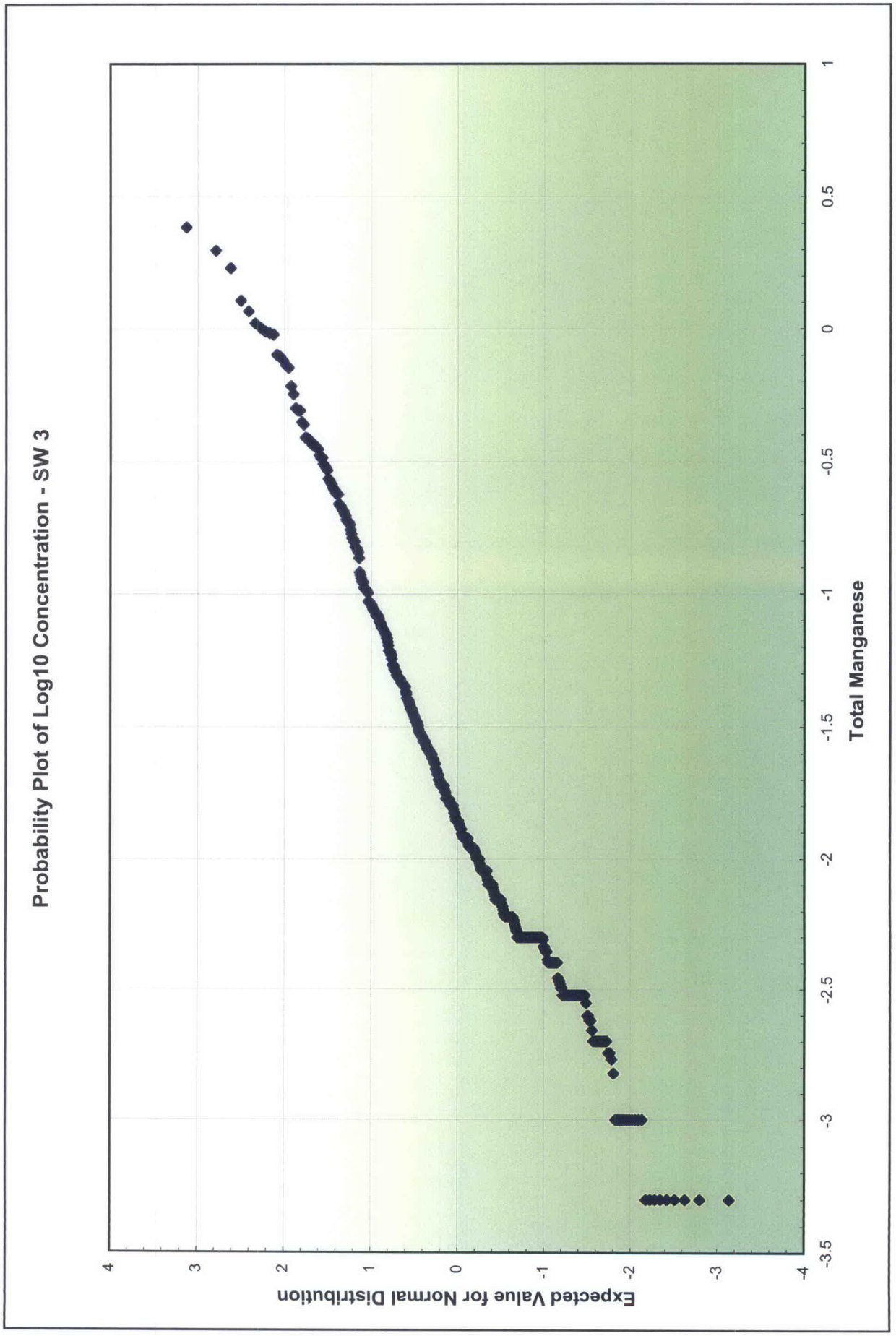
0
-1
-2
-3
-4
-1
0
1
2
3
4
5
6
7
Enterococcus


Probability Plot of Log10 Concentration - SW 3
Expected Value for Normal Distribution
4
3
2
1
0
-1
-2
-3
-4
-3
-2.5
-2
-1.5
-1
-0.5
0
0.5
1
1.5
2
2.5
Total Iron


Probability Plot of Log10 Concentration - SW 3
Expected Value for Normal Distribution
4
3
2
1
0
-1
-2
-3
-4
-1
0
1
2
3
4
5
6
7
Fecal Coliforms


Probability Plot of Log10 Concentration - SW 3
Expected Value for Normal Distribution
4
3
2
1
0
-1
-2
-3
-4
0
0.5
1
1.5
2
2.5
Total Potassium


Probability Plot of Log10 Concentration - SW 3
Expected Value for Normal Distribution
4
3
2
1
0
-1
-2
-3
-4
-0.4
-0.2
0
0.2
0.4
0.6
0.8
1
1.2
1.4
Total Magnesium


Probability Plot of Log10 Concentration - SW 3
Expected Value for Normal Distribution
4
3
2
1
0
-1
-2
-3
-4
-3.5
-3
-2.5
-2
-1.5
-1
-0.5
0
0.5
1
Total Manganese