

Pond		KC#1	KC#2	KC#1	KC#2	KC#2	KC#1 - SX	KC#1- BX	KC#2- BX	KC#2 - SX	KC#1
Lab ID #		W45707	W45717	X56286	X56287	Z25117	LI8497	LI8498	LI8501	LI8502	NH7007
Date Sampled		15/12/07	15/12/07	11/03/08	11/03/08	12/06/08	18/10/11	18/10/11	18/10/11	18/10/11	01/05/12
Calculated											
anion sum	me/l	2020	1640	676	645	1590	255	469	1080	202	160
bicarb alkalinity (as CaCO3)	mg/l	84	65	37	54	61	21	27	86	26	19
calc TDS	mg/l	118000	91900	40500	39300	92100	15100	27100	63200	11800	8920
carb. Alkalinity (as CaCO3)	mg/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cation sum	me/l	2040	1490	732	721	1570	267	462	1110	204	144
hardness (CaCO3)	mg/l	6200	5300	2500	2000	5100	970	1700	4600	770	540
ion balance	%	0.41	4.68	3.95	5.53	0.63	2.33	0.76	1.11	0.43	5.01
Langelier index @20 C	N/A	0.726	-0.173	-0.768	-0.907	0.612	-0.992	0.337	0.817	-0.86	-1.29
Langelier index @ 4C	N/A	0.456	-0.433	-1.01	-1.15	0.353	-1.23	0.099	0.568	-1.1	-1.53
nitrate	mg/l	ND	ND	ND	ND	0.06	0.15	0.21	ND	0.08	0.13
saturation pH @ 20C	N/A	5.51	6.12	7.4	7.35	6.17	8.19	7.79	6.48	8.21	8.45
saturation ph@ 4 C	N/A	5.78	6.38	7.64	7.59	6.43	8.43	8.03	6.73	8.45	8.69
Inorganics											
total alkalinity	mg/l	84	65	37	54	61	22	28	86	26	19
dissolved chloride (Cl)	mg/l	72000	58000	24000	23000	56000	9000	17000	38000	7100	5600
colour	TCU	42	850	36	270	8	ND	ND	ND	ND	ND
nitrate + nitrite	mg/l	ND	ND	ND	ND	0.06	0.19	0.48	ND	0.08	0.13
nitrite (N)	mg/l	ND	ND	ND	ND	ND	0.04	0.27	ND	ND	ND
nitrogen (ammonia)	mg/l	15	15	3.6	5.7	12	0.12	0.1	6.8	0.81	0.096
total organic carbon (C)	mg/l	120	27	10	19	5	1	ND	2	0.8	0.85
orthophosphate (P)	mg/l	ND	ND	0.02	ND	ND	ND	ND	ND	ND	ND
pH	N/A	6.24	5.95	6.63	6.44	6.78	7.2	8.13	7.3	7.35	7.16
reactive silica (SiO2)	mg/l	7.7	12	4	8	5.4	0.6	1.5	2.8	0.6	ND
dissolved sulphate (SO4)	mg/l	100	200	66	120	210	25	42	140	17	13
turbidity	NTU	930	930	73	180	180	0.3	1.1	0.4	0.9	0.26
conductivity	uS/cm	> 110000	> 110000	59000	60000	> 110000	26000	43000	93000	21000	16000

Pond	KC#2	KC#2 - X	culvert	Sewer Use	Freshwater aquatic life		Marine	
Lab ID #	NH7010	NH7191	RN6141					
Date Sampled	01/05/12	01/05/12	13/05/13					
Calculated								
anion sum	147	147	2.5					
bicarb alkalinity (as CaCO3)	19	19	94					
calc TDS	8280	8270	141	350				
carb. Alkalinity (as CaCO3)	ND	ND	ND					
cation sum	135	135	2.8					
hardness (CaCO3)	550	500	110					
ion balance	4.31	4.39	5.66					
Langelier index @20 C	-1.19	-1.23	0.137					
Langelier index @ 4C	-1.43	-1.46	-0.114					
nitrate	0.086	0.087	0.063					
saturation pH @ 20C	8.44	8.49	7.81	5.5				
saturation ph@ 4 C	8.68	8.72	8.06					
Inorganics								
total alkalinity	20	19	94					
dissolved chloride (Cl)	5200	5200	12	1500	640	120	10%	NA
colour	ND	ND	61		80% back		>5 back	
nitrate + nitrite	0.086	0.087	0.076					
nitrite (N)	ND	ND	0.013		3			
nitrogen (ammonia)	0.63	0.6	0.055					
total organic carbon (C)	1	1	11					
orthophosphate (P)	ND	ND	ND					
pH	7.25	7.26	7.95					
reactive silica (SiO2)	ND	ND	3.2					
dissolved sulphate (SO4)	11	10	13		128-429			
turbidity	0.57	0.6	29		8	2	8	2
conductivity	15000	15000	250					

Alpha Beta Test Results Kennetcook ponds

Metals												
aluminum	ug/l	ND	ND	ND	ND	ND	ND	358	ND	229	14.5	
antimony	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
arsenic	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
barium	ug/l	6300	2200	770	1800	ND	2840	4690	2830	1240	1580	
beryllium	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
bismuth	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
boron	ug/l	900	1300	ND	ND	ND	ND	ND	765	ND	60	
cadmium	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.023	
chromium	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
cobalt	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.49	
copper	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
iron	ug/l	65000	110000	42000	7400	ND	ND	ND	ND	ND	ND	
lead	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
manganese	ug/l	4300	7800	2900	1600	3500	193	143	2600	252	179	
molybdenum	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
nickel	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.9	
selenium	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
silver	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
strontium	ug/l	18000	8900	4200	6300	8300	10700	17400	13500	6020	5370	
thallium	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
tin	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
titanium	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
uranium	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
vanadium	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
zinc	ug/l	ND	ND	ND	ND	ND	ND	ND	119	ND	8.6	
Elements												
calcium	mg/l	1400	1200	570	450	1100	237	418	1040	186	136	
magnesium	mg/l	660	580	260	210	570	91.4	164	483	74.9	49.1	
phosphorus	mg/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
potassium	mg/l	100	150	59	30	120	11.5	18.5	78.9	16.8	6.97	
sodium	mg/l	44000	32000	16000	16000	34000	5690	9830	23200	4330	3070	

Alpha Beta Test Results Kennetcook ponds

Metals							
aluminum	19	15.4	1640	50000	5000		
antimony	ND	ND	ND	5000			
arsenic	ND	ND	1.8	1000	5	12.5	
barium	855	794	87.4	5000			
beryllium	ND	Nd	ND	5000			
bismuth	ND	ND	ND	5000			
boron	95	92	ND		29000	1500	
cadmium	0.017	ND	ND	100			0.12
chromium	ND	ND	2	4000			
cobalt	ND	ND	0.58	5000			
copper	ND	ND	3.4	1000	.094*hardness + 2 ug/l with hardness in mg/l		
iron	ND	ND	1510	50000	1000	300	
lead	ND	ND	0.95	2000	1		
manganese	124	114	34	5000	1600	1000	
molybdenum	ND	ND	ND	5000		73	
nickel	ND	ND	ND	2000	25		
selenium	ND	ND	ND	5000		1	
silver	ND	ND	ND	2000		0.1	
strontium	4040	3700	104				
thallium	ND	ND	ND			0.8	
tin	ND	ND	ND	5000			
titanium	ND	ND	59.6				
uranium	ND	ND	1.22		33	15	
vanadium	ND	ND	2.9				
zinc	14	12.6	127	3000		30	
Elements							
calcium	135	122	37.8				
magnesium	51.5	47.9	4.63				
phosphorus	ND	ND	ND				
potassium	12.6	11.7	3.1				
sodium	2850	2860	9.12				

Pond		KC-1-S	KC-1-B	KC-2-S	KC-2-B	KC-1_S	KC-1-B	KC-2-S	KC-2-B
Lab ID #		T11-01769.0	T11-01769.0	T11-01769.0	T11-01769.0	T11-01769.0	T11-01769.0	T11-01769.0	T11-01769.0
Date Received		40837	40837	40837	40837	40837	40837	40837	40837
Date Analysed		25/10/2011	23/11/2011	24/11/2011	24/11/2011	Dec 2/2011	Dec 3/2011	Dec 4/2011	Dec 4/2011
NORMs		gamma spectroscopy (preliminary)				gamma (final)			
thorium - 234	Bq/l	<10	<10	<10	<10	<2	2.3	<3	1.8
thorium - 232	Bq/l								
thorium - 230	Bq/l	<27	<18	<32	<32	<5	<6	<14	<14
thorium - 228	Bq/l	<1	<1	<1	<1	0.3	0.4	<0.3	0.5
thorium - 227	Bq/l	<2	<1	<1	<1	<0.7	<0.7	<1	<1
radium -228	Bq/l	4	<1	<1	7	1.4	2.6	<1	3.9
radium - 226	Bq/l	<5	<11	<9	<18	6	4	3	12
radium - 224	Bq/l								
radium - 223	Bq/l	<2	<1	<1	<2	<0.4	<0.5	<0.8	<0.8
lead - 210	Bq/l	<80	<4	<1	<1	1.4	<1	<1	1.5
thallium - 208	Bq/l	<1	<1	<1	<1				
potassium - 40	Bq/l	<100	<100	<100	<100	<5	<4	<5	<4
uranium - 235	Bq/l	<1	<1	<1	<1	0.4	<0.4	<0.6	<0.3
gross alpha	Bq/l	5	8	4	14				
gross beta	Bq/l	<1	<1	<5	12				

Pond	KC1-1-A	KC1-1-B	KC1-2-A	KC1-2-B	KC1-3-A	KC1-3-B	KC2-1-A
Lab ID #	T12-00079.0	T12-00079.0	T12-00079.0	T12-00079.0	T12-00079.0	T12-00079.0	T12-00079.0
Date Received	40927	40927	40927	40927	Jan 19/2012	Jan 19/2012	Jan 19/2012
Date Analysed	Feb 1-14/2012	Feb 1-14/2012	Feb 1-14/2012	Feb 1-14/2012	Feb 1-14/2012	Feb 1-14/2012	Feb 1-14/2012
NORMs	alpha spectroscopy						
thorium - 234							
thorium - 232	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
thorium - 230	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
thorium - 228	0.11	0.1	0.08	0.07	0.09	0.13	0.04
thorium - 227							
radium -228							
radium - 226	3.4	2.4	3.1	2.5	1.1	3.5	1.5
radium - 224	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
radium - 223							
lead - 210	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1
thallium - 208							
potassium - 40							
uranium - 235							
gross alpha							
gross beta							

