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ANALYSIS REPORT

Client:	Tauranga City Council Laboratory	**Lab No:**	802020 SPv1
Contact:	D Hawkes	**Date Registered:**	18-Jun-2010
	C/- Tauranga City Council Laboratory	**Date Reported:**	01-Jul-2010
	Private Bag 12022	**Quote No:**	31415
	TAURANGA 3143	**Order No:**	
		Client Reference:	Retic Water - Comprehensive
		Submitted By:	R Cairns

Sample Type: Aqueous

Sample Name:		100600355 Fergusson Park 17-Jun-2010	100600356 Gordon Spratt 17-Jun-2010			
Lab Number:		802020.1	802020.2			
Individual Tests						
Phenolphthalein Alkalinity	g/m³ as $CaCO_3$	< 1.0	< 1.0	-	-	-
Total Alkalinity	g/m³ as $CaCO_3$	17.9	15.9	-	-	-
Total Hardness	g/m³ as $CaCO_3$	10.3	8.1	-	-	-
Boron	g/m³	0.009	0.008	-	-	-
Calcium	g/m³	3.0	2.3	-	-	-
Iron	g/m³	< 0.02	< 0.02	-	-	-
Lithium	g/m³	0.0033	0.0027	-	-	-
Magnesium	g/m³	0.66	0.59	-	-	-
Manganese	g/m³	0.0041	0.0007	-	-	-
Total Mercury	g/m³	< 0.00008	< 0.00008	-	-	-
Potassium	g/m³	2.8	2.1	-	-	-
Selenium	g/m³	< 0.0010	< 0.0010	-	-	-
Sodium	g/m³	10.3	10.6	-	-	-
Bromide	g/m³	0.26	0.08	-	-	-
Total Cyanide	g/m³	< 0.0010	< 0.0010	-	-	-
Chloride	g/m³	8.8	10.6	-	-	-
Chlorate	g/m³	0.023	0.055	-	-	-
Fluoride	g/m³	< 0.05	< 0.05	-	-	-
Sulphate	g/m³	4.3	1.7	-	-	-
Heavy metals Potable (As,Cd,Cr,Cu,Ni,Pb,Zn)						
Arsenic	g/m³	< 0.0010	< 0.0010	-	-	-
Cadmium	g/m³	< 0.00005	< 0.00005	-	-	-
Chromium	g/m³	< 0.0005	< 0.0005	-	-	-
Copper	g/m³	< 0.0005	0.0049	-	-	-
Lead	g/m³	< 0.00010	0.00015	-	-	-
Nickel	g/m³	< 0.0005	< 0.0005	-	-	-
Zinc	g/m³	0.0038	0.0039	-	-	-
Acid Herbicides Trace in Water by LCMSMS						
Acifluorfen	g/m³	< 0.00004	< 0.00004	-	-	-
Bentazone	g/m³	< 0.00004	< 0.00004	-	-	-
Bromoxynil	g/m³	< 0.00004	< 0.00004	-	-	-
Clopyralid	g/m³	< 0.00006	< 0.00006	-	-	-
2,4-Dichlorophenoxyacetic acid (24D)	g/m³	< 0.00004	< 0.00004	-	-	-
2,4-Dichlorophenoxybutyric acid (24DB)	g/m³	< 0.00004	< 0.00004	-	-	-
Dicamba	g/m³	< 0.00004	< 0.00004	-	-	-
Dichlorprop	g/m³	< 0.00004	< 0.00004	-	-	-
Fluazifop	g/m³	< 0.00004	< 0.00004	-	-	-

Sample Type: Aqueous						
Sample Name:		100600355 Fergusson Park 17-Jun-2010	100600356 Gordon Spratt 17-Jun-2010			
Lab Number:		802020.1	802020.2			
Acid Herbicides Trace in Water by LCMSMS						
Fluroxypyr	g/m³	< 0.00004	< 0.00004	-	-	-
Haloxyfop	g/m³	< 0.00004	< 0.00004	-	-	-
MCPA	g/m³	< 0.00004	< 0.00004	-	-	-
MCPB	g/m³	< 0.00004	< 0.00004	-	-	-
Mecoprop	g/m³	< 0.00004	< 0.00004	-	-	-
Oryzalin	g/m³	< 0.00006	< 0.00006	-	-	-
2,3,4,6-Tetrachlorophenol	g/m³	< 0.00004	< 0.00004	-	-	-
2,4,5-trichlorophenoxypropionic acid (245TP,Fenoprop, Silvex)	g/m³	< 0.00004	< 0.00004	-	-	-
2,4,5-Trichlorophenoxyacetic acid (245T)	g/m³	< 0.00004	< 0.00004	-	-	-
Pentachlorophenol (PCP)	g/m³	< 0.00004	< 0.00004	-	-	-
Picloram	g/m³	< 0.00011	< 0.00011	-	-	-
Quizalofop	g/m³	< 0.00004	< 0.00004	-	-	-
Triclopyr	g/m³	< 0.00007	< 0.00007	-	-	-
Organonitro&phosphorus Pesticides Screen in MR Water by GCMS						
Acetochlor	g/m³	< 0.0004	< 0.0004	-	-	-
Alachlor	g/m³	< 0.0003	< 0.0003	-	-	-
Atrazine	g/m³	< 0.0004	< 0.0004	-	-	-
Atrazine-desethyl	g/m³	< 0.0004	< 0.0004	-	-	-
Atrazine-desisopropyl	g/m³	< 0.0007	< 0.0007	-	-	-
Azaconazole	g/m³	< 0.0002	< 0.0002	-	-	-
Azinphos-methyl	g/m³	< 0.0007	< 0.0007	-	-	-
Benalaxyl	g/m³	< 0.0002	< 0.0002	-	-	-
Bitertanol	g/m³	< 0.0007	< 0.0007	-	-	-
Bromacil	g/m³	< 0.0004	< 0.0004	-	-	-
Bromopropylate	g/m³	< 0.0004	< 0.0004	-	-	-
Butachlor	g/m³	< 0.0004	< 0.0004	-	-	-
Captan	g/m³	< 0.0007	< 0.0007	-	-	-
Carbaryl	g/m³	< 0.0004	< 0.0004	-	-	-
Carbofuran	g/m³	< 0.0004	< 0.0004	-	-	-
Chlorfluazuron	g/m³	< 0.0004	< 0.0004	-	-	-
Chlorothalonil	g/m³	< 0.0004	< 0.0004	-	-	-
Chlorpyrifos	g/m³	< 0.0004	< 0.0004	-	-	-
Chlorpyrifos-methyl	g/m³	< 0.0004	< 0.0004	-	-	-
Chlortoluron	g/m³	< 0.0007	< 0.0007	-	-	-
Cyanazine	g/m³	< 0.0004	< 0.0004	-	-	-
Cyfluthrin	g/m³	< 0.0004	< 0.0004	-	-	-
Cyhalothrin	g/m³	< 0.0004	< 0.0004	-	-	-
Cypermethrin	g/m³	< 0.0007	< 0.0007	-	-	-
Deltamethrin	g/m³	< 0.0004	< 0.0004	-	-	-
Diazinon	g/m³	< 0.0002	< 0.0002	-	-	-
Dichlofluanid	g/m³	< 0.0004	< 0.0004	-	-	-
Dichloran	g/m³	< 0.002	< 0.002	-	-	-
Dichlorvos	g/m³	< 0.0007	< 0.0007	-	-	-
Difenoconazole	g/m³	< 0.0007	< 0.0007	-	-	-
Dimethoate	g/m³	< 0.0007	< 0.0007	-	-	-
Diphenylamine	g/m³	< 0.0007	< 0.0007	-	-	-
Diuron	g/m³	< 0.0004	< 0.0004	-	-	-
Fenpropimorph	g/m³	< 0.0004	< 0.0004	-	-	-
Fluazifop-butyl	g/m³	< 0.0004	< 0.0004	-	-	-
Fluometuron	g/m³	< 0.0004	< 0.0004	-	-	-
Flusilazole	g/m³	< 0.0004	< 0.0004	-	-	-
Fluvalinate	g/m³	< 0.0003	< 0.0003	-	-	-
Furalaxyl	g/m³	< 0.0002	< 0.0002	-	-	-

Sample Type: Aqueous						
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Lab Number:		802020.1	802020.2			
Organonitro&phosphorus Pesticides Screen in MR Water by GCMS						
Haloxyfop-methyl	g/m³	< 0.0004	< 0.0004	-	-	-
Hexaconazole	g/m³	< 0.0004	< 0.0004	-	-	-
Hexazinone	g/m³	< 0.0002	< 0.0002	-	-	-
IPBC (3-Iodo-2-propynyl-n-butylcarbamate)	g/m³	< 0.002	< 0.002	-	-	-
Iprodione	g/m³	< 0.0004	< 0.0004	-	-	-
Kresoxim-methyl	g/m³	< 0.0002	< 0.0002	-	-	-
Linuron	g/m³	< 0.0004	< 0.0004	-	-	-
Malathion	g/m³	< 0.0004	< 0.0004	-	-	-
Metalaxyl	g/m³	< 0.0004	< 0.0004	-	-	-
Metolachlor	g/m³	< 0.0003	< 0.0003	-	-	-
Metribuzin	g/m³	< 0.0004	< 0.0004	-	-	-
Molinate	g/m³	< 0.0007	< 0.0007	-	-	-
Myclobutanil	g/m³	< 0.0004	< 0.0004	-	-	-
Naled	g/m³	< 0.002	< 0.002	-	-	-
Norflurazon	g/m³	< 0.0007	< 0.0007	-	-	-
Oxadiazon	g/m³	< 0.0004	< 0.0004	-	-	-
Oxyfluorfen	g/m³	< 0.0002	< 0.0002	-	-	-
Paclobutrazol	g/m³	< 0.0004	< 0.0004	-	-	-
Parathion-ethyl	g/m³	< 0.0004	< 0.0004	-	-	-
Parathion-methyl	g/m³	< 0.0004	< 0.0004	-	-	-
Pendimethalin	g/m³	< 0.0004	< 0.0004	-	-	-
Permethrin	g/m³	< 0.0002	< 0.0002	-	-	-
Pirimicarb	g/m³	< 0.0004	< 0.0004	-	-	-
Pirimiphos-methyl	g/m³	< 0.0004	< 0.0004	-	-	-
Prochloraz	g/m³	< 0.002	< 0.002	-	-	-
Procymidone	g/m³	< 0.0004	< 0.0004	-	-	-
Prometryn	g/m³	< 0.0002	< 0.0002	-	-	-
Propachlor	g/m³	< 0.0004	< 0.0004	-	-	-
Propanil	g/m³	< 0.002	< 0.002	-	-	-
Propazine	g/m³	< 0.0002	< 0.0002	-	-	-
Propiconazole	g/m³	< 0.0003	< 0.0003	-	-	-
Pyriproxyfen	g/m³	< 0.0004	< 0.0004	-	-	-
Quizalofop-ethyl	g/m³	< 0.0004	< 0.0004	-	-	-
Simazine	g/m³	< 0.0004	< 0.0004	-	-	-
Simetryn	g/m³	< 0.0004	< 0.0004	-	-	-
Sulfentrazone	g/m³	< 0.002	< 0.002	-	-	-
TCMTB [2-(thiocyanomethylthio) benzothiazole,Busan]	g/m³	< 0.0007	< 0.0007	-	-	-
Tebuconazole	g/m³	< 0.0004	< 0.0004	-	-	-
Terbacil	g/m³	< 0.0004	< 0.0004	-	-	-
Terbufos	g/m³	< 0.0004	< 0.0004	-	-	-
Terbumeton	g/m³	< 0.0004	< 0.0004	-	-	-
Terbuthylazine	g/m³	< 0.0002	< 0.0002	-	-	-
Terbuthylazine-desethyl	g/m³	< 0.0004	< 0.0004	-	-	-
Terbutryn	g/m³	< 0.0004	< 0.0004	-	-	-
Thiabendazole	g/m³	< 0.002	< 0.002	-	-	-
Thiobencarb	g/m³	< 0.0004	< 0.0004	-	-	-
Tolylfluanid	g/m³	< 0.0002	< 0.0002	-	-	-
Triazophos	g/m³	< 0.0004	< 0.0004	-	-	-
Trifluralin	g/m³	< 0.0004	< 0.0004	-	-	-
Vinclozolin	g/m³	< 0.0004	< 0.0004	-	-	-
Pentachlorophenol Screening in Water by GC-ECD						
Pentachlorophenol (PCP)	g/m³	< 0.0003	< 0.0003	-	-	-
2,3,4,6-Tetrachlorophenol	g/m³	< 0.0003	< 0.0003	-	-	-

Sample Type: Aqueous						
Sample Name:		100600355 Fergusson Park 17-Jun-2010	100600356 Gordon Spratt 17-Jun-2010			
Lab Number:		802020.1	802020.2			
Haloethers Trace in SVOC Water Samples by GC-MS						
Bis(2-chloroethoxy) methane	g/m³	< 0.0005	< 0.0005	-	-	-
Bis(2-chloroethyl)ether	g/m³	< 0.0005	< 0.0005	-	-	-
Bis(2-chloroisopropyl)ether	g/m³	< 0.0005	< 0.0005	-	-	-
4-Bromophenyl phenyl ether	g/m³	< 0.0005	< 0.0005	-	-	-
4-Chlorophenyl phenyl ether	g/m³	< 0.0005	< 0.0005	-	-	-
Nitrogen containing compounds Trace in SVOC Water Samples, GC-MS						
Aniline	g/m³	< 0.0010	< 0.0010	-	-	-
3,3'-Dichlorobenzidine	g/m³	< 0.003	< 0.003	-	-	-
2,4-Dinitrotoluene	g/m³	< 0.0010	< 0.0010	-	-	-
2,6-Dinitrotoluene	g/m³	< 0.0010	< 0.0010	-	-	-
Nitrobenzene	g/m³	< 0.0005	< 0.0005	-	-	-
N-Nitrosodi-n-propylamine	g/m³	< 0.0010	< 0.0010	-	-	-
N-Nitrosodiphenylamine	g/m³	< 0.0010	< 0.0010	-	-	-
Organochlorine Pesticides Trace in SVOC Water Samples by GC-MS						
Aldrin	g/m³	< 0.0005	< 0.0005	-	-	-
alpha-BHC	g/m³	< 0.0005	< 0.0005	-	-	-
beta-BHC	g/m³	< 0.0005	< 0.0005	-	-	-
delta-BHC	g/m³	< 0.0005	< 0.0005	-	-	-
gamma-BHC (Lindane)	g/m³	< 0.0005	< 0.0005	-	-	-
4,4'-DDD	g/m³	< 0.0005	< 0.0005	-	-	-
4,4'-DDE	g/m³	< 0.0005	< 0.0005	-	-	-
4,4'-DDT	g/m³	< 0.0010	< 0.0010	-	-	-
Dieldrin	g/m³	< 0.0005	< 0.0005	-	-	-
Endosulfan I	g/m³	< 0.0010	< 0.0010	-	-	-
Endosulfan II	g/m³	< 0.0010	< 0.0010	-	-	-
Endosulfan sulphate	g/m³	< 0.0010	< 0.0010	-	-	-
Endrin	g/m³	< 0.0010	< 0.0010	-	-	-
Endrin Ketone	g/m³	< 0.0010	< 0.0010	-	-	-
Heptachlor	g/m³	< 0.0005	< 0.0005	-	-	-
Heptachlor epoxide	g/m³	< 0.0005	< 0.0005	-	-	-
Hexachlorobenzene	g/m³	< 0.0005	< 0.0005	-	-	-
Polycyclic Aromatic Hydrocarbons Trace in SVOC Water Samples						
Acenaphthene	g/m³	< 0.0003	< 0.0003	-	-	-
Acenaphthylene	g/m³	< 0.0003	< 0.0003	-	-	-
Anthracene	g/m³	< 0.0003	< 0.0003	-	-	-
Benzo[a]anthracene	g/m³	< 0.0003	< 0.0003	-	-	-
Benzo[a]pyrene (BAP)	g/m³	< 0.0005	< 0.0005	-	-	-
Benzo[b]fluoranthene	g/m³	< 0.0005	< 0.0005	-	-	-
Benzo[g,h,i]perylene	g/m³	< 0.0005	< 0.0005	-	-	-
Benzo[k]fluoranthene	g/m³	< 0.0005	< 0.0005	-	-	-
2-Chloronaphthalene	g/m³	< 0.0003	< 0.0003	-	-	-
Chrysene	g/m³	< 0.0003	< 0.0003	-	-	-
Dibenzo[a,h]anthracene	g/m³	< 0.0005	< 0.0005	-	-	-
Fluoranthene	g/m³	< 0.0003	< 0.0003	-	-	-
Fluorene	g/m³	< 0.0003	< 0.0003	-	-	-
Indeno(1,2,3-c,d)pyrene	g/m³	< 0.0005	< 0.0005	-	-	-
2-Methylnaphthalene	g/m³	< 0.0003	< 0.0003	-	-	-
Naphthalene	g/m³	< 0.0003	< 0.0003	-	-	-
Phenanthrene	g/m³	< 0.0003	< 0.0003	-	-	-
Pyrene	g/m³	< 0.0003	< 0.0003	-	-	-
Phenols Trace (drinkingwater) in SVOC Water Samples by GC-MS						
2-Chlorophenol	g/m³	< 0.0005	< 0.0005	-	-	-
2,4-Dichlorophenol	g/m³	< 0.0005	< 0.0005	-	-	-
2,4,6-Trichlorophenol	g/m³	< 0.0010	< 0.0010	-	-	-

Sample Type: Aqueous						
Sample Name:		100600355 Fergusson Park 17-Jun-2010	100600356 Gordon Spratt 17-Jun-2010			
Lab Number:		802020.1	802020.2			
Phenols Trace (non-drinkingwater) in SVOC Water Samples by GC-MS						
4-Chloro-3-methylphenol	g/m³	< 0.0010	< 0.0010	-	-	-
2,4-Dimethylphenol	g/m³	< 0.0005	< 0.0005	-	-	-
2-Methyl-4,6-dinitrophenol	g/m³	< 0.010	< 0.010	-	-	-
3 & 4-Methylphenol (m- + p-cresol)	g/m³	< 0.0010	< 0.0010	-	-	-
2-Methylphenol (o-Cresol)	g/m³	< 0.0005	< 0.0005	-	-	-
2-Nitrophenol	g/m³	< 0.0010	< 0.0010	-	-	-
4-Nitrophenol	g/m³	< 0.0010	< 0.0010	-	-	-
Pentachlorophenol (PCP)	g/m³	< 0.010	< 0.010	-	-	-
Phenol	g/m³	< 0.0010	< 0.0010	-	-	-
2,4,5-Trichlorophenol	g/m³	< 0.0010	< 0.0010	-	-	-
Plasticisers Trace (non-drinkingwater) in SVOC Water by GCMS						
Butylbenzylphthalate	g/m³	< 0.0010	< 0.0010	-	-	-
Diethylphthalate	g/m³	< 0.0010	< 0.0010	-	-	-
Dimethylphthalate	g/m³	< 0.0010	< 0.0010	-	-	-
Di-n-butylphthalate	g/m³	< 0.0010	< 0.0010	-	-	-
Di-n-octylphthalate	g/m³	< 0.0010	< 0.0010	-	-	-
Plasticisers Trace (drinkingwater) in SVOC Water Samples by GCMS						
Bis(2-ethylhexyl)phthalate	g/m³	< 0.003	< 0.003	-	-	-
Di(2-ethylhexyl)adipate	g/m³	< 0.0010	< 0.0010	-	-	-
Other Halogenated compounds Trace (drinkingwater) in SVOC Water						
1,2-Dichlorobenzene	g/m³	< 0.0010	< 0.0010	-	-	-
1,3-Dichlorobenzene	g/m³	< 0.0010	< 0.0010	-	-	-
1,4-Dichlorobenzene	g/m³	< 0.0010	< 0.0010	-	-	-
Other Halogenated compounds Trace (non-drinkingwater) in SVOC						
Hexachlorobutadiene	g/m³	< 0.0010	< 0.0010	-	-	-
Hexachlorocyclopentadiene	g/m³	< 0.003	< 0.003	-	-	-
Hexachloroethane	g/m³	< 0.0010	< 0.0010	-	-	-
1,2,4-Trichlorobenzene	g/m³	< 0.0005	< 0.0005	-	-	-
Other SVOC Trace in SVOC Water Samples by GC-MS						
Benzyl alcohol	g/m³	< 0.005	< 0.005	-	-	-
Carbazole	g/m³	< 0.0005	< 0.0005	-	-	-
Dibenzofuran	g/m³	< 0.0005	< 0.0005	-	-	-
Isophorone	g/m³	< 0.0005	< 0.0005	-	-	-
BTEX in VOC Water by Purge&Trap GC-MS						
Benzene	g/m³	< 0.0005	< 0.0005	-	-	-
Toluene	g/m³	< 0.0010	< 0.0010	-	-	-
Ethylbenzene	g/m³	< 0.0005	< 0.0005	-	-	-
m&p-Xylene	g/m³	< 0.0005	< 0.0005	-	-	-
o-Xylene	g/m³	< 0.0005	< 0.0005	-	-	-
Halogenated Aliphatics in VOC Water by Purge&Trap GC-MS						
Bromomethane	g/m³	< 0.0005	< 0.0005	-	-	-
Carbon tetrachloride	g/m³	< 0.0005	< 0.0005	-	-	-
Chloroethane	g/m³	< 0.0005	< 0.0005	-	-	-
Chloromethane	g/m³	< 0.0005	< 0.0005	-	-	-
1,2-Dibromo-3-chloropropane	g/m³	< 0.0005	< 0.0005	-	-	-
1,2-Dibromoethane (ethylene dibromide, EDB)	g/m³	< 0.0004	< 0.0004	-	-	-
Dibromomethane	g/m³	< 0.0005	< 0.0005	-	-	-
Dichlorodifluoromethane	g/m³	< 0.0005	< 0.0005	-	-	-
1,1-Dichloroethane	g/m³	< 0.0005	< 0.0005	-	-	-
1,2-Dichloroethane	g/m³	< 0.0005	< 0.0005	-	-	-
1,1-Dichloroethene	g/m³	< 0.0005	< 0.0005	-	-	-
cis-1,2-Dichloroethene	g/m³	< 0.0005	< 0.0005	-	-	-
trans-1,2-Dichloroethene	g/m³	< 0.0005	< 0.0005	-	-	-

Sample Type: Aqueous						
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Halogenated Aliphatics in VOC Water by Purge&Trap GC-MS						
Dichloromethane (methylene chloride)	g/m³	< 0.010	< 0.010	-	-	-
1,2-Dichloropropane	g/m³	< 0.0005	< 0.0005	-	-	-
1,3-Dichloropropane	g/m³	< 0.0005	< 0.0005	-	-	-
2,2-Dichloropropane	g/m³	< 0.0005	< 0.0005	-	-	-
1,1-Dichloropropene	g/m³	< 0.0005	< 0.0005	-	-	-
cis-1,3-Dichloropropene	g/m³	< 0.0005	< 0.0005	-	-	-
trans-1,3-Dichloropropene	g/m³	< 0.0005	< 0.0005	-	-	-
Hexachlorobutadiene	g/m³	< 0.0005	< 0.0005	-	-	-
1,1,1,2-Tetrachloroethane	g/m³	< 0.0005	< 0.0005	-	-	-
1,1,2,2-Tetrachloroethane	g/m³	< 0.0005	< 0.0005	-	-	-
Tetrachloroethene (tetrachloroethylene)	g/m³	< 0.0005	< 0.0005	-	-	-
1,1,1-Trichloroethane	g/m³	< 0.0005	< 0.0005	-	-	-
1,1,2-Trichloroethane	g/m³	< 0.0005	< 0.0005	-	-	-
Trichloroethene (trichloroethylene)	g/m³	< 0.0005	< 0.0005	-	-	-
Trichlorofluoromethane	g/m³	< 0.0005	< 0.0005	-	-	-
1,2,3-Trichloropropane	g/m³	< 0.0005	< 0.0005	-	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	g/m³	< 0.004	< 0.004	-	-	-
Vinyl chloride	g/m³	< 0.0005	< 0.0005	-	-	-
Halogenated Aromatics in VOC Water by Purge&Trap GC-MS						
Bromobenzene	g/m³	< 0.0005	< 0.0005	-	-	-
Chlorobenzene (monochlorobenzene)	g/m³	< 0.0005	< 0.0005	-	-	-
2-Chlorotoluene	g/m³	< 0.0005	< 0.0005	-	-	-
4-Chlorotoluene	g/m³	< 0.0005	< 0.0005	-	-	-
1,2-Dichlorobenzene	g/m³	< 0.0005	< 0.0005	-	-	-
1,3-Dichlorobenzene	g/m³	< 0.0005	< 0.0005	-	-	-
1,4-Dichlorobenzene	g/m³	< 0.0005	< 0.0005	-	-	-
1,2,3-Trichlorobenzene	g/m³	< 0.0005	< 0.0005	-	-	-
1,2,4-Trichlorobenzene	g/m³	< 0.0005	< 0.0005	-	-	-
1,3,5-Trichlorobenzene	g/m3	< 0.0005	< 0.0005	-	-	-
Monoaromatic Hydrocarbons in VOC Water by Purge&Trap GC-MS						
n-Butylbenzene	g/m³	< 0.0005	< 0.0005	-	-	-
tert-Butylbenzene	g/m³	< 0.0005	< 0.0005	-	-	-
Isopropylbenzene (Cumene)	g/m³	< 0.0005	< 0.0005	-	-	-
4-Isopropyltoluene (p-Cymene)	g/m³	< 0.0005	< 0.0005	-	-	-
n-Propylbenzene	g/m³	< 0.0005	< 0.0005	-	-	-
sec-Butylbenzene	g/m³	< 0.0005	< 0.0005	-	-	-
Styrene	g/m³	< 0.0005	< 0.0005	-	-	-
1,2,4-Trimethylbenzene	g/m³	< 0.0005	< 0.0005	-	-	-
1,3,5-Trimethylbenzene	g/m³	< 0.0005	< 0.0005	-	-	-
Ketones in VOC Water by Purge&Trap GC-MS						
Acetone	g/m³	< 0.05	< 0.05	-	-	-
2-Butanone (MEK)	g/m³	< 0.005	< 0.005	-	-	-
Methyl tert-butylether (MTBE)	g/m³	< 0.005	< 0.005	-	-	-
4-Methylpentan-2-one (MIBK)	g/m³	< 0.005	< 0.005	-	-	-
Trihalomethanes in VOC Water by Purge&Trap GC-MS						
Bromodichloromethane	g/m³	0.0067	0.0065	-	-	-
Bromoform (tribromomethane)	g/m³	< 0.0005	< 0.0005	-	-	-
Chloroform (trichloromethane)	g/m³	0.0130	0.0182	-	-	-
Dibromochloromethane	g/m³	0.0019	0.0014	-	-	-
Other VOC in Water by Purge&Trap GC-MS						
Carbon disulphide	g/m³	< 0.005	< 0.005	-	-	-
Naphthalene	g/m³	< 0.0005	< 0.0005	-	-	-
System monitoring Compounds for VOC - % Recovery						
4-Bromofluorobenzene	%	94	93	-	-	-

Sample Type: Aqueous						
Sample Name:	100600355 Fergusson Park 17-Jun-2010	100600356 Gordon Spratt 17-Jun-2010				
Lab Number:	802020.1	802020.2				
System monitoring Compounds for VOC - % Recovery						
Toluene-d8 %	96	96	-	-	-	

SUMMARY OF METHODS

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively clean matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis.

Sample Type: Aqueous			
Test	**Method Description**	**Default Detection Limit**	**Samples**
Heavy metals Potable (As,Cd,Cr,Cu,Ni,Pb,Zn)	Analysed as received (after acid preservation, if required), ICP-MS, trace level.	-	1-2
Acid Herbicides Trace in Water by LCMSMS	Acid Herbicides in water, trace level	-	1-2
Organonitro&phosphorus Pesticides Screen in MR Water by GCMS	Solid phase extraction, GPC (if required), GC-MS analysis	-	1-2
Pentachlorophenol Screening in Water by GC-ECD	Solvent extraction, acetylation, GC-ECD analysis	-	1-2
Semivolatile Organic Compounds Trace in Water by GC-MS	Liquid/Liquid extraction, GPC cleanup (if required), GC-MS FS analysis	-	1-2
Haloethers Trace in SVOC Water Samples by GC-MS	Liquid/Liquid extraction, GPC cleanup (if required), GC-MS FS analysis	-	1-2
Nitrogen containing compounds Trace in SVOC Water Samples, GC-MS	Liquid/Liquid extraction, GPC cleanup (if required), GC-MS FS analysis	-	1-2
Organochlorine Pesticides Trace in SVOC Water Samples by GC-MS	Liquid/Liquid extraction, GPC cleanup (if required), GC-MS FS analysis	-	1-2
Polycyclic Aromatic Hydrocarbons Trace in SVOC Water Samples	Liquid/Liquid extraction, GPC cleanup (if required), GC-MS FS analysis	-	1-2
Phenols Trace in SVOC Water Samples by GC-MS	Liquid/Liquid extraction, GPC cleanup (if required), GC-MS FS analysis	-	1-2
Phenols Trace (drinkingwater) in SVOC Water Samples by GC-MS	Liquid/Liquid extraction, GPC cleanup (if required), GC-MS FS analysis	-	1-2
Phenols Trace (non-drinkingwater) in SVOC Water Samples by GC-MS	Liquid/Liquid extraction, GPC cleanup (if required), GC-MS FS analysis	-	1-2
Plasticisers Trace (non-drinkingwater) in SVOC Water by GCMS	Liquid/Liquid extraction, GPC cleanup (if required), GC-MS FS analysis	-	1-2
Plasticisers Trace in SVOC Water Samples by GC-MS	Liquid/Liquid extraction, GPC cleanup (if required), GC-MS FS analysis	-	1-2
Plasticisers Trace (drinkingwater) in SVOC Water Samples by GCMS	Liquid/Liquid extraction, GPC cleanup (if required), GC-MS FS analysis	-	1-2
Other Halogenated compounds Trace in SVOC Water Samples by GC-MS	Liquid/Liquid extraction, GPC cleanup (if required), GC-MS FS analysis	-	1-2
Other Halogenated compounds Trace (drinkingwater) in SVOC Water	Liquid/Liquid extraction, GPC cleanup (if required), GC-MS FS analysis	-	1-2
Other Halogenated compounds Trace (non-drinkingwater) in SVOC	Liquid/Liquid extraction, GPC cleanup (if required), GC-MS FS analysis	-	1-2
Other SVOC Trace in SVOC Water Samples by GC-MS	Liquid/Liquid extraction, GPC cleanup (if required), GC-MS FS analysis	-	1-2
SMC Compounds Trace in SVOC Water Samples by GC-MS	Liquid/Liquid extraction, GPC cleanup (if required), GC-MS FS analysis	-	1-2
Volatile Organic Compounds Trace in Water by Purge&Trap	Purge & Trap, GC-MS FS analysis	-	1-2
BTEX in VOC Water by Purge&Trap GC-MS	Purge & Trap, GC-MS FS analysis	-	1-2
Halogenated Aliphatics in VOC Water by Purge&Trap GC-MS	Purge & Trap, GC-MS FS analysis	-	1-2
Halogenated Aromatics in VOC Water by Purge&Trap GC-MS	Purge & Trap, GC-MS FS analysis	-	1-2
Monoaromatic Hydrocarbons in VOC Water by Purge&Trap GC-MS	Purge & Trap, GC-MS FS analysis	-	1-2
Ketones in VOC Water by Purge&Trap GC-MS	Purge & Trap, GC-MS FS analysis	-	1-2

Sample Type: Aqueous			
Test	**Method Description**	**Default Detection Limit**	**Samples**
Trihalomethanes in VOC Water by Purge&Trap GC-MS	Purge & Trap, GC-MS FS analysis	-	1-2
Other VOC in Water by Purge&Trap GC-MS	Purge & Trap, GC-MS FS analysis	-	1-2
System monitoring Compounds for VOC - % Recovery	Purge & Trap, GC-MS FS analysis	-	1-2
Total Cyanide Distillation	Distillation following the addition of sulphuric acid, alkaline trapping solution. APHA 4500-CN^- C & E 21st ed. 2005.	-	1-2
Phenolphthalein Alkalinity	Titration to pH 8.3, Autotitrator. (P-Alkalinity). APHA 2320 B (modified) 21st ed. 2005.	1.0 g/m^3 as $CaCO_3$	1-2
Total Alkalinity	Titration to pH 4.5 (M-alkalinity), autotitrator. APHA 2320 B (Modified for alk <20) 21st ed. 2005.	1.0 g/m^3 as $CaCO_3$	1-2
Total Hardness	Calculation: from Ca and Mg. APHA 2340 B 21st ed. 2005.	1.0 g/m^3 as $CaCO_3$	1-2
Boron	Analysed as received (after acid preservation, if required), ICP-MS, trace level. APHA 3125 B 21st ed. 2005.	0.005 g/m^3	1-2
Calcium	Analysed as received (after acid preservation, if required), ICP-MS, trace level. APHA 3125 B 21st ed. 2005.	0.05 g/m^3	1-2
Iron	Analysed as received (after acid preservation, if required), ICP-MS, trace level. APHA 3125 B 21st ed. 2005.	0.02 g/m^3	1-2
Lithium	Analysed as received (after acid preservation, if required), ICP-MS, trace level. APHA 3125 B 21st ed. 2005.	0.0002 g/m^3	1-2
Magnesium	Analysed as received (after acid preservation, if required), ICP-MS, trace level. APHA 3125 B 21st ed. 2005.	0.02 g/m^3	1-2
Manganese	Analysed as received (after acid preservation, if required), ICP-MS, trace level. APHA 3125 B 21st ed. 2005 / US EPA Method 200.8.	0.0005 g/m^3	1-2
Total Mercury	Bromine Oxidation followed by Atomic Fluorescence. US EPA Method 245.7, Feb 2005.	0.00008 g/m^3	1-2
Potassium	Analysed as received (after acid preservation, if required), ICP-MS, trace level. APHA 3125 B 21st ed. 2005.	0.05 g/m^3	1-2
Selenium	Analysed as received (after acid preservation, if required), ICP-MS, trace level. APHA 3125 B 21st ed. 2005 / US EPA Method 200.8.	0.0010 g/m^3	1-2
Sodium	Analysed as received (after acid preservation, if required), ICP-MS, trace level. APHA 3125 B 21st ed. 2005.	0.02 g/m^3	1-2
Bromide	Filtered sample. Ion Chromatography. APHA 4110 B 21st ed. 2005.	0.05 g/m^3	1-2
Total Cyanide	Distillation, colorimetry. APHA 4500-CN- C & E 21st ed. 2005 (modified).	0.0010 g/m^3	1-2
Chloride	Filtered sample. Ferric thiocyanate colorimetry. Discrete Analyser. APHA 4500 Cl^- E (modified from continuous flow analysis) 21st ed. 2005.	0.5 g/m^3	1-2
Chlorate	Sample analysed as received, filtered if required. Ion Chromatography. US EPA Method 300.1 Part B.	0.005 g/m^3	1-2
Fluoride	Direct measurement, ion selective electrode. APHA 4500-F^- C (modified from manual analysis) 21st ed. 2005.	0.05 g/m^3	1-2
Sulphate	Filtered sample. Ion Chromatography. APHA 4110 B 21st ed. 2005.	0.5 g/m^3	1-2

These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Samples are held at the laboratory after reporting for a length of time depending on the preservation used and the stability of the analytes being tested. Once the storage period is completed the samples are discarded unless otherwise advised by the client.

Ara Heron BSc (Tech)
Client Services Manager - Environmental Division