



Certificate of Analysis

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Client:	Western BOP District Council	Lab No:	2603083	DWMAVUPv1
Contact:	Amber Palmer C/- Western BOP District Council Private Bag 12803 Tauranga Mail Centre Tauranga 3143	Date Received:	04-May-2021	
		Date Reported:	20-May-2021	
		Quote No:	109895	
		Order No:	45723	
		Client Reference:	Raw Water - Western Area [2-YRLY]	
		Submitted By:	Amber Palmer	

Sample Type: Aqueous

Sample Name:	WSZ5 - Tahawai Bore - G01609 04-May-2021 11:00 am	Maximum Acceptable Value	Outside Limit
Lab Number:	2603083.1		
Individual Tests			
Turbidity	NTU	0.190 ± 0.038	-
Total Alkalinity	g/m ³ as CaCO ₃	59.8 ± 2.5	-
Carbonate	g/m ³ at 25°C	< 1.0 ± 0.056	-
Bicarbonate	g/m ³ at 25°C	72.5 ± 3.7	-
Free Carbon Dioxide	g/m ³ at 25°C	1.99 ± 0.93	-
Total Hardness	g/m ³ as CaCO ₃	41.4 ± 2.4	-
Total Suspended Solids	g/m ³	< 3 ± 2.1	-
Total Dissolved Solids (TDS)	g/m ³	167 ± 22	-
Dissolved Aluminium	g/m ³	< 0.003 ± 0.0021	-
Dissolved Antimony	g/m ³	< 0.0002 ± 0.00014	-
Dissolved Arsenic	g/m ³	0.00167 ± 0.00068	-
Dissolved Barium	g/m ³	0.00566 ± 0.00028	-
Total Boron	g/m ³	0.0209 ± 0.0046	1.4
Dissolved Cadmium	g/m ³	< 0.00005 ± 0.000034	-
Total Calcium	g/m ³	5.24 ± 0.22	-
Dissolved Chromium	g/m ³	< 0.0005 ± 0.00034	-
Total Copper	g/m ³	< 0.00053 ± 0.00036	2
Total Iron	g/m ³	0.074 ± 0.018	-
Dissolved Lead	g/m ³	0.000110 ± 0.000067	-
Total Magnesium	g/m ³	6.88 ± 0.56	-
Total Manganese	g/m ³	< 0.00053 ± 0.00036	0.4
Dissolved Mercury	g/m ³	< 0.00008 ± 0.000054	-
Dissolved Molybdenum	g/m ³	< 0.0002 ± 0.00014	-
Dissolved Nickel	g/m ³	0.00056 ± 0.00034	-
Dissolved Selenium	g/m ³	< 0.0010 ± 0.00067	-
Dissolved Silver	g/m ³	< 0.00010 ± 0.000067	-
Total Sodium	g/m ³	19.8 ± 1.2	-
Dissolved Tin	g/m ³	< 0.0005 ± 0.00034	-
Total Zinc	g/m ³	0.0288 ± 0.0025	-
Bromate	g/m ³	< 0.005 ± 0.0034	0.01
Chloride	g/m ³	17.4 ± 1.2	-
Fluoride	g/m ³	0.076 ± 0.042	1.5
Total Ammoniacal-N	g/m ³	< 0.010 ± 0.0067	-
Nitrite-N	g/m ³	< 0.002 ± 0.0014	0.06 0.91 (short term)
Nitrate-N	g/m ³	0.0656 ± 0.0081	11.3
Nitrate-N + Nitrite-N	g/m ³	0.0656 ± 0.0080	-
Reactive Silica	g/m ³ as SiO ₂	72.6 ± 1.5	-



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Sample Type: Aqueous				
Sample Name:	WSZ5 - Tahawai Bore - G01609 04-May-2021 11:00 am		Maximum Acceptable Value	Outside Limit
Lab Number:	2603083.1			
Individual Tests				
Sulphate	g/m ³	3.03 ± 0.39	-	-
Non-Purgeable Organic Carbon (NPOC)	g/m ³	< 0.3 ± 0.20	-	-
Absorbance at 254 nm	AU cm ⁻¹	0.0035 ± 0.0021	-	-
Transmittance at 254 nm*	%T, 1 cm cell	99.2	-	-
Absorbance at 270 nm	AU cm ⁻¹	0.0034 ± 0.0021	-	-
Transmittance at 270 nm*	%T, 1 cm cell	99.2	-	-
Total Coliforms	cfu / 100mL	< 1 #1	-	-
Enterococci	cfu / 100mL	< 1 #1	-	-
Faecal Coliforms and E. coli profile				
Faecal Coliforms	cfu / 100mL	< 1 #1	-	-
Escherichia coli	cfu / 100mL	< 1 #1	< 1	No
Hazen Colour Profile				
Apparent Hazen Colour	Hazen units	< 10 ± 20	-	-
OrganoNitrogen & Phosphorus pesticides, trace, liq/liq GCMS				
Acetochlor	g/m ³	< 0.00004 ± 0.00042	-	-
Alachlor	g/m ³	< 0.00004 ± 0.00018	0.02	No
Atrazine	g/m ³	< 0.00004 ± 0.000024	0.002	No
Atrazine-desethyl	g/m ³	< 0.00004 ± 0.00041	-	-
Atrazine-desisopropyl	g/m ³	< 0.00008 ± 0.00018	-	-
Azaconazole	g/m ³	< 0.00002 ± 0.0000071	-	-
Azinphos-methyl	g/m ³	< 0.00008 ± 0.000036	0.004	No
Benalaxyl	g/m ³	< 0.00002 ± 0.0000094	-	-
Bitertanol	g/m ³	< 0.00008 ± 0.000048	-	-
Bromacil	g/m ³	< 0.00004 ± 0.000025	0.4	No
Bromopropylate	g/m ³	< 0.00004 ± 0.000022	-	-
Butachlor	g/m ³	< 0.00004 ± 0.000021	-	-
Captan	g/m ³	< 0.00008 ± 0.000060	-	-
Carbaryl	g/m ³	< 0.00004 ± 0.000021	-	-
Carbofenothion	g/m ³	< 0.00004 ± 0.000022	-	-
Carbofuran	g/m ³	< 0.00004 ± 0.000022	0.008	No
Chlorfluazuron	g/m ³	< 0.00004 ± 0.000032	-	-
Chlorothalonil	g/m ³	< 0.00004 ± 0.000022	-	-
Chlorpyrifos	g/m ³	< 0.00004 ± 0.000022	0.04	No
Chlorpyrifos-methyl	g/m ³	< 0.00004 ± 0.000022	-	-
Chlortoluron	g/m ³	< 0.00008 ± 0.000062	0.04	No
Cyanazine	g/m ³	< 0.00004 ± 0.000021	0.0007	No
Cyfluthrin	g/m ³	< 0.00004 ± 0.000027	-	-
Cyhalothrin	g/m ³	< 0.00004 ± 0.000022	-	-
Cypermethrin	g/m ³	< 0.00008 ± 0.000043	-	-
Deltamethrin (including Tralomethrin)	g/m ³	< 0.00006 ± 0.000027	-	-
Diazinon	g/m ³	< 0.00002 ± 0.0000083	-	-
Dichlofluanid	g/m ³	< 0.00004 ± 0.00018	-	-
Dichloran	g/m ³	< 0.0002 ± 0.000089	-	-
Dichlorvos	g/m ³	< 0.00008 ± 0.00018	-	-
Difenoconazole	g/m ³	< 0.00008 ± 0.000043	-	-
Dimethoate	g/m ³	< 0.00008 ± 0.000057	0.008	No
Diphenylamine	g/m ³	< 0.00008 ± 0.00018	-	-
Diuron	g/m ³	< 0.00004 ± 0.000023	0.02	No
Fenpropimorph	g/m ³	< 0.00004 ± 0.000022	-	-
Fluazifop-butyl	g/m ³	< 0.00004 ± 0.000022	-	-
Fluometuron	g/m ³	< 0.00004 ± 0.000026	-	-
Flusilazole	g/m ³	< 0.00004 ± 0.000028	-	-
Fluvalinate	g/m ³	< 0.00004 ± 0.000011	-	-
Furalaxyl	g/m ³	< 0.00002 ± 0.0000079	-	-
Haloxypop-methyl	g/m ³	< 0.00004 ± 0.000027	-	-

Sample Type: Aqueous					
Sample Name:		WSZ5 - Tahawai Bore - G01609 04-May-2021 11:00 am		Maximum Acceptable Value	Outside Limit
Lab Number:		2603083.1			
OrganoNitrogen & Phosphorus pesticides, trace, liq/liq GCMS					
Hexaconazole	g/m ³	< 0.00004 ± 0.000060	-	-	
Hexazinone	g/m ³	< 0.00002 ± 0.000017	0.4	No	
IPBC (3-Iodo-2-propynyl-n-butylcarbamate)	g/m ³	< 0.0002 ± 0.00011	-	-	
Kresoxim-methyl	g/m ³	< 0.00002 ± 0.000019	-	-	
Linuron	g/m ³	< 0.00005 ± 0.000021	-	-	
Malathion	g/m ³	< 0.00004 ± 0.000022	-	-	
Metalaxyl	g/m ³	< 0.00004 ± 0.000023	0.1	No	
Metolachlor	g/m ³	< 0.00004 ± 0.000021	0.01	No	
Metribuzin	g/m ³	< 0.00004 ± 0.000027	0.07	No	
Molinate	g/m ³	< 0.00008 ± 0.000030	0.007	No	
Myclobutanil	g/m ³	< 0.00004 ± 0.000033	-	-	
Naled	g/m ³	< 0.0002 ± 0.000056	-	-	
Norflurazon	g/m ³	< 0.00008 ± 0.000028	-	-	
Oxadiazon	g/m ³	< 0.00004 ± 0.000022	0.2	No	
Oxyfluorfen	g/m ³	< 0.00002 ± 0.000019	-	-	
Paclobutrazol	g/m ³	< 0.00004 ± 0.000023	-	-	
Parathion-ethyl	g/m ³	< 0.00004 ± 0.000022	-	-	
Parathion-methyl	g/m ³	< 0.00004 ± 0.000022	-	-	
Pendimethalin	g/m ³	< 0.00004 ± 0.000051	0.02	No	
Permethrin	g/m ³	< 0.00002 ± 0.000020	-	-	
Pirimicarb	g/m ³	< 0.00004 ± 0.000015	-	-	
Pirimiphos-methyl	g/m ³	< 0.00004 ± 0.000024	0.1	No	
Prochloraz	g/m ³	< 0.0002 ± 0.000059	-	-	
Procymidone	g/m ³	< 0.00004 ± 0.000021	0.7	No	
Prometryn	g/m ³	< 0.00002 ± 0.000020	-	-	
Propachlor	g/m ³	< 0.00004 ± 0.000024	-	-	
Propanil	g/m ³	< 0.0002 ± 0.000056	-	-	
Propazine	g/m ³	< 0.00002 ± 0.000020	0.07	No	
Propiconazole	g/m ³	< 0.00004 ± 0.000033	-	-	
Pyriproxyfen	g/m ³	< 0.00004 ± 0.000033	0.4	No	
Quizalofop-ethyl	g/m ³	< 0.00004 ± 0.000022	-	-	
Simazine	g/m ³	< 0.00004 ± 0.000013	0.002	No	
Simetryn	g/m ³	< 0.00004 ± 0.000022	-	-	
Sulfentrazone	g/m ³	< 0.0002 ± 0.000056	-	-	
TCMTB [2-(thiocyanomethylthio)benzothiazole, Busan]	g/m ³	< 0.00008 ± 0.000032	-	-	
Tebuconazole	g/m ³	< 0.00004 ± 0.000059	-	-	
Terbacil	g/m ³	< 0.00004 ± 0.000032	0.04	No	
Terbufos	g/m ³	< 0.00004 ± 0.000011	-	-	
Terbumeton	g/m ³	< 0.00004 ± 0.000021	-	-	
Terbuthylazine	g/m ³	< 0.00002 ± 0.000079	0.008	No	
Terbuthylazine-desethyl	g/m ³	< 0.00004 ± 0.000038	-	-	
Terbutryn	g/m ³	< 0.00004 ± 0.000023	-	-	
Thiabendazole	g/m ³	< 0.0002 ± 0.000063	0.4	No	
Thiobencarb	g/m ³	< 0.00004 ± 0.000022	-	-	
Tolyfluanid	g/m ³	< 0.00002 ± 0.000019	-	-	
Triazophos	g/m ³	< 0.00004 ± 0.000032	-	-	
Trifluralin	g/m ³	< 0.00004 ± 0.000027	0.03	No	
Vinclozolin	g/m ³	< 0.00004 ± 0.000048	-	-	
Hydrogen sulphide trace level profile*					
pH	pH Units	7.8 ± 0.2	-	-	
Electrical Conductivity (EC)	mS/m	18.0 ± 0.4	-	-	
Sample Temperature*	°C	20.0	-	-	
Un-ionised hydrogen sulphide	g/m ³	< 0.002	-	-	

Sample Type: Aqueous				
Sample Name:	WSZ5 - Tahawai Bore - G01609 04-May-2021 11:00 am		Maximum Acceptable Value	Outside Limit
Lab Number:	2603083.1			
Hydrogen sulphide trace level profile*				
Total Sulphide	g/m ³	< 0.002 ± 0.0014	-	-
Acid Herbicides Screen in Water by LCMSMS				
Acifluorfen	g/m ³	< 0.0004 ± 0.00021	-	-
Bentazone	g/m ³	< 0.0004 ± 0.00021	-	-
Bromoxynil	g/m ³	< 0.0004 ± 0.00021	-	-
Clopyralid	g/m ³	< 0.0004 ± 0.00021	-	-
2,4-Dichlorophenoxyacetic acid (24D)	g/m ³	< 0.0004 ± 0.00021	0.04	No
2,4-Dichlorophenoxybutyric acid (24DB)	g/m ³	< 0.0004 ± 0.00021	0.1	No
Dicamba	g/m ³	< 0.0004 ± 0.00021	-	-
Dichlorprop	g/m ³	< 0.0004 ± 0.00021	0.1	No
Fluazifop	g/m ³	< 0.0004 ± 0.00021	-	-
Fluroxypyr	g/m ³	< 0.0004 ± 0.00021	-	-
Haloxypop	g/m ³	< 0.0004 ± 0.00021	-	-
2-methyl-4-chlorophenoxyacetic acid (MCPA)	g/m ³	< 0.0004 ± 0.00021	0.002	No
2-methyl-4-chlorophenoxybutanoic acid (MCPB)	g/m ³	< 0.0004 ± 0.00021	-	-
Mecoprop	g/m ³	< 0.0004 ± 0.00021	0.01	No
Oryzalin	g/m ³	< 0.0006 ± 0.00023	0.4	No
2,3,4,6-Tetrachlorophenol (TCP)	g/m ³	< 0.0004 ± 0.00021	-	-
2,4,5-trichlorophenoxypropionic acid (245TP,Fenoprop, Silvex)	g/m ³	< 0.0004 ± 0.00021	0.01	No
2,4,5-Trichlorophenoxyacetic acid (245T)	g/m ³	< 0.0004 ± 0.00021	0.01	No
Pentachlorophenol (PCP)	g/m ³	< 0.0004 ± 0.00021	0.009	No
Picloram	g/m ³	< 0.0004 ± 0.00021	0.2	No
Quizalofop	g/m ³	< 0.0004 ± 0.00021	-	-
Triclopyr	g/m ³	< 0.0004 ± 0.00021	0.1	No
Multiresidue Extra Pesticides Trace in Water samples by Liq/liq				
Bendiocarb	g/m ³	< 0.00004 ± 0.000022	-	-
Benodanil	g/m ³	< 0.00008 ± 0.000039	-	-
Bifenthrin	g/m ³	< 0.00002 ± 0.0000079	-	-
Bromophos-ethyl	g/m ³	< 0.00004 ± 0.000022	-	-
Bupirimate	g/m ³	< 0.00004 ± 0.000021	-	-
Buprofezin	g/m ³	< 0.00004 ± 0.000021	-	-
Captafol	g/m ³	< 0.0002 ± 0.00014	-	-
Carbofenthiol	g/m ³	< 0.00004 ± 0.000022	-	-
Carboxin	g/m ³	< 0.00004 ± 0.000024	-	-
Chlorfenvinphos	g/m ³	< 0.00004 ± 0.000022	-	-
Chlorpropham	g/m ³	< 0.00008 ± 0.000034	-	-
Chlozolinate	g/m ³	< 0.00004 ± 0.000022	-	-
Coumaphos	g/m ³	< 0.00008 ± 0.000038	-	-
Cyproconazole	g/m ³	< 0.00004 ± 0.000022	-	-
Cyprodinil	g/m ³	< 0.00004 ± 0.000027	-	-
Demeton-S-methyl	g/m ³	< 0.00008 ± 0.00018	-	-
Dichlobenil	g/m ³	< 0.00004 ± 0.000022	-	-
Dichlofenthion	g/m ³	< 0.00004 ± 0.000022	-	-
Dicofol	g/m ³	< 0.0002 ± 0.00014	-	-
Dicrotophos	g/m ³	< 0.00004 ± 0.000022	-	-
Dinocap	g/m ³	< 0.0003 ± 0.00012	-	-
Disulfoton	g/m ³	< 0.00004 ± 0.000023	-	-
EPN	g/m ³	< 0.00004 ± 0.000026	-	-
Esfenvalerate	g/m ³	< 0.00004 ± 0.000022	-	-
Ethion	g/m ³	< 0.00004 ± 0.000021	-	-
Etrimfos	g/m ³	< 0.00004 ± 0.000022	-	-
Famphur	g/m ³	< 0.00004 ± 0.000021	-	-
Fenamiphos	g/m ³	< 0.00004 ± 0.000022	-	-

Sample Type: Aqueous					
Sample Name:		WSZ5 - Tahawai Bore - G01609 04-May-2021 11:00 am		Maximum Acceptable Value	Outside Limit
Lab Number:		2603083.1			
Multiresidue Extra Pesticides Trace in Water samples by Liq/liq					
Fenarimol	g/m ³	< 0.00004 ± 0.000023		-	-
Fenitrothion	g/m ³	< 0.00004 ± 0.000022		-	-
Fenpropathrin	g/m ³	< 0.00004 ± 0.000022		-	-
Fensulfothion	g/m ³	< 0.00004 ± 0.000026		-	-
Fenthion	g/m ³	< 0.00004 ± 0.000024		-	-
Fenvalerate	g/m ³	< 0.00004 ± 0.000021		-	-
Folpet	g/m ³	< 0.00008 ± 0.000027		-	-
Hexythiazox	g/m ³	< 0.0002 ± 0.000071		-	-
Imazalil	g/m ³	< 0.0002 ± 0.000059		-	-
Indoxacarb	g/m ³	< 0.00004 ± 0.000022		-	-
Iodofenphos	g/m ³	< 0.00004 ± 0.000015		-	-
Isazophos	g/m ³	< 0.00004 ± 0.000025		-	-
Isofenphos	g/m ³	< 0.00002 ± 0.000018		-	-
Leptophos	g/m ³	< 0.00004 ± 0.000023		-	-
Methacrifos	g/m ³	< 0.00004 ± 0.000022		-	-
Methidathion	g/m ³	< 0.00004 ± 0.000022		-	-
Methiocarb	g/m ³	< 0.00004 ± 0.000033		-	-
Mevinphos	g/m ³	< 0.00008 ± 0.000040		-	-
Nitrofen	g/m ³	< 0.00008 ± 0.000034		-	-
Nitrothal-Isopropyl	g/m ³	< 0.00004 ± 0.000023		-	-
Oxychlorane	g/m ³	< 0.00002 ± 0.000033		-	-
Penconazole	g/m ³	< 0.00004 ± 0.000022		-	-
Phorate	g/m ³	< 0.00008 ± 0.000028		-	-
Phosmet	g/m ³	< 0.00004 ± 0.000021		-	-
Phosphamidon	g/m ³	< 0.00004 ± 0.000057		-	-
Propetamphos	g/m ³	< 0.00006 ± 0.000027		-	-
Propham	g/m ³	< 0.00004 ± 0.000023		-	-
Prothiofos	g/m ³	< 0.00004 ± 0.000022		-	-
Pyrazophos	g/m ³	< 0.00004 ± 0.000022		-	-
Pyrifenox	g/m ³	< 0.00004 ± 0.000052		-	-
Pyrimethanil	g/m ³	< 0.00004 ± 0.000021		-	-
Quintozene	g/m ³	< 0.00008 ± 0.000026		-	-
Sulfotep	g/m ³	< 0.00004 ± 0.000022		-	-
Tebufenpyrad	g/m ³	< 0.00002 ± 0.000019		-	-
Tetrachlorvinphos	g/m ³	< 0.00004 ± 0.000021		-	-
Thiometon	g/m ³	< 0.00008 ± 0.000032		-	-
Triadimefon	g/m ³	< 0.00004 ± 0.000021		-	-
Organochlorine Pesticides Trace in water, By Liq/Liq					
Aldrin	g/m ³	< 0.000005 ± 0.0000034		-	-
alpha-BHC	g/m ³	< 0.000010 ± 0.0000067		-	-
beta-BHC	g/m ³	< 0.000010 ± 0.0000067		-	-
delta-BHC	g/m ³	< 0.000010 ± 0.0000067		-	-
gamma-BHC (Lindane)	g/m ³	< 0.000010 ± 0.0000067		0.002	No
cis-Chlordane	g/m ³	< 0.000005 ± 0.0000034		-	-
trans-Chlordane	g/m ³	< 0.000005 ± 0.0000034		-	-
2,4'-DDD	g/m ³	< 0.000010 ± 0.0000067		-	-
4,4'-DDD	g/m ³	< 0.000010 ± 0.0000067		-	-
2,4'-DDE	g/m ³	< 0.000010 ± 0.0000067		-	-
4,4'-DDE	g/m ³	< 0.000010 ± 0.0000067		-	-
2,4'-DDT	g/m ³	< 0.000010 ± 0.0000067		-	-
4,4'-DDT	g/m ³	< 0.000010 ± 0.0000067		-	-
Total DDT Isomers	g/m ³	< 0.00006		0.001	No
Dieldrin	g/m ³	< 0.000005 ± 0.0000034		-	-
Endosulfan I	g/m ³	< 0.000010 ± 0.0000067		-	-
Endosulfan II	g/m ³	< 0.000010 ± 0.0000067		-	-

Sample Type: Aqueous				
Sample Name:	WSZ5 - Tahawai Bore - G01609 04-May-2021 11:00 am		Maximum Acceptable Value	Outside Limit
Lab Number:	2603083.1			
Organochlorine Pesticides Trace in water, By Liq/Liq				
Endosulfan sulphate	g/m ³	< 0.000010 ± 0.0000067	-	-
Endrin	g/m ³	< 0.000005 ± 0.0000034	0.001	No
Endrin aldehyde	g/m ³	< 0.000005 ± 0.0000034	-	-
Endrin ketone	g/m ³	< 0.000010 ± 0.0000067	-	-
Heptachlor	g/m ³	< 0.000005 ± 0.0000034	-	-
Heptachlor epoxide	g/m ³	< 0.000005 ± 0.0000034	-	-
Hexachlorobenzene	g/m ³	< 0.00004 ± 0.000027	-	-
Methoxychlor	g/m ³	< 0.000005 ± 0.0000034	0.02	No
Polycyclic Aromatic Hydrocarbons Trace in Water, By Liq/Liq				
Acenaphthene	g/m ³	< 0.000005 ± 0.0000034	-	-
Acenaphthylene	g/m ³	< 0.000005 ± 0.0000034	-	-
Anthracene	g/m ³	< 0.000005 ± 0.0000034	-	-
Benzo[a]anthracene	g/m ³	< 0.000005 ± 0.0000034	-	-
Benzo[a]pyrene (BAP)	g/m ³	< 0.000005 ± 0.0000034	0.0007	No
Benzo[b]fluoranthene + Benzo[j]fluoranthene	g/m ³	< 0.000005 ± 0.0000034	-	-
Benzo[g,h,i]perylene	g/m ³	< 0.000005 ± 0.0000034	-	-
Benzo[k]fluoranthene	g/m ³	< 0.000005 ± 0.0000034	-	-
Chrysene	g/m ³	< 0.000005 ± 0.0000034	-	-
Dibenzo[a,h]anthracene	g/m ³	< 0.000005 ± 0.0000034	-	-
Fluoranthene	g/m ³	< 0.000005 ± 0.0000034	-	-
Fluorene	g/m ³	< 0.000005 ± 0.0000055	-	-
Indeno(1,2,3-c,d)pyrene	g/m ³	< 0.000005 ± 0.0000034	-	-
Naphthalene	g/m ³	< 0.00003 ± 0.000020	-	-
Phenanthrene	g/m ³	< 0.000005 ± 0.000013	-	-
Pyrene	g/m ³	< 0.000005 ± 0.0000057	-	-
BTEX in VOC Water by Headspace GC-MS				
Benzene	g/m ³	< 0.0003 ± 0.00032	0.01	No
Ethylbenzene	g/m ³	< 0.0005 ± 0.00034	0.3	No
Toluene	g/m ³	< 0.0003 ± 0.00060	0.8	No
m&p-Xylene	g/m ³	< 0.0005 ± 0.00034	-	-
o-Xylene	g/m ³	< 0.0003 ± 0.00031	-	-
Halogenated Aliphatics in VOC Water by Headspace GC-MS				
Bromomethane (Methyl Bromide)	g/m ³	< 0.0003 ± 0.00031	-	-
Carbon tetrachloride	g/m ³	< 0.0003 ± 0.00030	0.005	No
Chloroethane	g/m ³	< 0.0003 ± 0.00031	-	-
Chloromethane	g/m ³	< 0.0003 ± 0.00031	-	-
1,2-Dibromo-3-chloropropane	g/m ³	< 0.0003 ± 0.00026	0.001	No
1,2-Dibromoethane (ethylene dibromide, EDB)	g/m ³	< 0.0003 ± 0.00025	0.0004	No
Dibromomethane	g/m ³	< 0.0003 ± 0.00031	-	-
Dichlorodifluoromethane	g/m ³	< 0.0003 ± 0.00030	-	-
1,1-Dichloroethane	g/m ³	< 0.0003 ± 0.00031	-	-
1,2-Dichloroethane	g/m ³	< 0.0003 ± 0.00030	0.03	No
1,1-Dichloroethene	g/m ³	< 0.0003 ± 0.00032	-	-
cis-1,2-Dichloroethene	g/m ³	< 0.0003 ± 0.00031	-	-
trans-1,2-Dichloroethene	g/m ³	< 0.0003 ± 0.00030	-	-
Dichloromethane (methylene chloride)	g/m ³	< 0.010 ± 0.0067	0.02	No
1,2-Dichloropropane	g/m ³	< 0.0003 ± 0.00031	0.05	No
1,3-Dichloropropane	g/m ³	< 0.0003 ± 0.00031	-	-
1,1-Dichloropropene	g/m ³	< 0.0003 ± 0.00031	-	-
cis-1,3-Dichloropropene	g/m ³	< 0.0005 ± 0.00034	-	-
trans-1,3-Dichloropropene	g/m ³	< 0.0005 ± 0.00034	-	-
Hexachlorobutadiene	g/m ³	< 0.0003 ± 0.00030	0.0007	No
1,1,1,2-Tetrachloroethane	g/m ³	< 0.0003 ± 0.00031	-	-

Sample Type: Aqueous				
Sample Name:	WSZ5 - Tahawai Bore - G01609 04-May-2021 11:00 am		Maximum Acceptable Value	Outside Limit
Lab Number:	2603083.1			
Halogenated Aliphatics in VOC Water by Headspace GC-MS				
1,1,2,2-Tetrachloroethane	g/m ³	< 0.0003 ± 0.00031	-	-
Tetrachloroethene (tetrachloroethylene)	g/m ³	< 0.0003 ± 0.00032	0.05	No
1,1,1-Trichloroethane	g/m ³	< 0.0003 ± 0.00030	-	-
1,1,2-Trichloroethane	g/m ³	< 0.0003 ± 0.00031	-	-
Trichloroethene (trichloroethylene)	g/m ³	< 0.0003 ± 0.00031	0.02	No
Trichlorofluoromethane	g/m ³	< 0.0003 ± 0.00032	-	-
1,2,3-Trichloropropane	g/m ³	< 0.0003 ± 0.00031	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	g/m ³	< 0.0003 ± 0.00027	-	-
Vinyl chloride	g/m ³	< 0.0003 ± 0.00030	0.0003	No
Halogenated Aromatics in VOC Water by Headspace GC-MS				
Chlorobenzene (monochlorobenzene)	g/m ³	< 0.0003 ± 0.00031	-	-
1,2-Dichlorobenzene	g/m ³	< 0.0003 ± 0.00031	1.5	No
1,3-Dichlorobenzene	g/m ³	< 0.0003 ± 0.00031	-	-
1,4-Dichlorobenzene	g/m ³	< 0.0003 ± 0.00031	0.4	No
1,2,3-Trichlorobenzene	g/m ³	< 0.0003 ± 0.00029	-	-
1,2,4-Trichlorobenzene	g/m ³	< 0.0003 ± 0.00029	-	-
1,3,5-Trichlorobenzene	g/m ³	< 0.0003 ± 0.00031	-	-
Bromobenzene	g/m ³	< 0.0003 ± 0.00031	-	-
2-Chlorotoluene	g/m ³	< 0.0003 ± 0.00031	-	-
4-Chlorotoluene	g/m ³	< 0.0003 ± 0.00031	-	-
Monoaromatic Hydrocarbons in VOC Water by Headspace GC-MS				
n-Butylbenzene	g/m ³	< 0.0005 ± 0.00034	-	-
tert-Butylbenzene	g/m ³	< 0.0003 ± 0.00031	-	-
4-Isopropyltoluene (p-Cymene)	g/m ³	< 0.0005 ± 0.00034	-	-
Isopropylbenzene (Cumene)	g/m ³	< 0.0003 ± 0.00031	-	-
n-Propylbenzene	g/m ³	< 0.0005 ± 0.00034	-	-
sec-Butylbenzene	g/m ³	< 0.0003 ± 0.00031	-	-
Styrene	g/m ³	< 0.0005 ± 0.00034	0.03	No
1,2,4-Trimethylbenzene	g/m ³	< 0.0003 ± 0.00031	-	-
1,3,5-Trimethylbenzene	g/m ³	< 0.0003 ± 0.00031	-	-
Ketones in VOC Water by Headspace GC-MS				
Acetone	g/m ³	< 0.05 ± 0.034	-	-
2-Butanone (MEK)	g/m ³	< 0.05 ± 0.016	-	-
Methyl tert-butylether (MTBE)	g/m ³	< 0.0003 ± 0.00031	-	-
4-Methylpentan-2-one (MIBK)	g/m ³	< 0.010 ± 0.0045	-	-
Trihalomethanes in VOC Water by Headspace GC-MS				
Bromodichloromethane	g/m ³	< 0.0003 ± 0.00030	0.06	No
Bromoform (tribromomethane)	g/m ³	< 0.0005 ± 0.00034	0.1	No
Chloroform (Trichloromethane)	g/m ³	< 0.0003 ± 0.00030	0.4	No
Dibromochloromethane	g/m ³	< 0.0003 ± 0.00030	0.15	No
Other VOC in Water by Headspace GC-MS				
Carbon disulphide	g/m ³	< 0.0005 ± 0.00031	-	-
Naphthalene	g/m ³	< 0.0005 ± 0.00034	-	-
Sample Name:	WSZ7 - Wharawhara Bore - G01610 04-May-2021 12:15 pm		Maximum Acceptable Value	Outside Limit
Lab Number:	2603083.2			
Individual Tests				
Turbidity	NTU	< 0.05 ± 0.034	-	-
Total Alkalinity	g/m ³ as CaCO ₃	53.3 ± 2.3	-	-
Carbonate	g/m ³ at 25°C	< 1.0 ± 0.035	-	-
Bicarbonate	g/m ³ at 25°C	64.7 ± 3.4	-	-
Free Carbon Dioxide	g/m ³ at 25°C	2.5 ± 1.2	-	-
Total Hardness	g/m ³ as CaCO ₃	38.6 ± 1.7	-	-
Total Suspended Solids	g/m ³	< 3 ± 2.1	-	-

Sample Type: Aqueous					
Sample Name:		WSZ7 - Wharawhara Bore - G01610 04-May-2021 12:15 pm		Maximum Acceptable Value	Outside Limit
Lab Number:		2603083.2			
Individual Tests					
Total Dissolved Solids (TDS)	g/m ³	133 ± 18		-	-
Dissolved Aluminium	g/m ³	< 0.003 ± 0.0021		-	-
Dissolved Antimony	g/m ³	< 0.0002 ± 0.00014		-	-
Dissolved Arsenic	g/m ³	< 0.0010 ± 0.00067		-	-
Dissolved Barium	g/m ³	0.00744 ± 0.00036		-	-
Total Boron	g/m ³	0.0145 ± 0.0041		1.4	No
Dissolved Cadmium	g/m ³	< 0.00005 ± 0.000034		-	-
Total Calcium	g/m ³	8.45 ± 0.34		-	-
Dissolved Chromium	g/m ³	0.00056 ± 0.00034		-	-
Total Copper	g/m ³	< 0.00053 ± 0.00036		2	No
Total Iron	g/m ³	< 0.021 ± 0.014		-	-
Dissolved Lead	g/m ³	0.000334 ± 0.000071		-	-
Total Magnesium	g/m ³	4.26 ± 0.35		-	-
Total Manganese	g/m ³	< 0.00053 ± 0.00036		0.4	No
Dissolved Mercury	g/m ³	< 0.00008 ± 0.000054		-	-
Dissolved Molybdenum	g/m ³	< 0.0002 ± 0.00014		-	-
Dissolved Nickel	g/m ³	< 0.0005 ± 0.00034		-	-
Dissolved Selenium	g/m ³	< 0.0010 ± 0.00067		-	-
Dissolved Silver	g/m ³	< 0.00010 ± 0.000067		-	-
Total Sodium	g/m ³	11.29 ± 0.68		-	-
Dissolved Tin	g/m ³	< 0.0005 ± 0.00034		-	-
Total Zinc	g/m ³	0.00379 ± 0.00079		-	-
Bromate	g/m ³	< 0.005 ± 0.0034		0.01	No
Chloride	g/m ³	8.21 ± 0.60		-	-
Fluoride	g/m ³	0.063 ± 0.041		1.5	No
Total Ammoniacal-N	g/m ³	< 0.010 ± 0.0067		-	-
Nitrite-N	g/m ³	< 0.002 ± 0.0014		0.06 0.91 (short term)	No
Nitrate-N	g/m ³	0.0411 ± 0.0053		11.3	No
Nitrate-N + Nitrite-N	g/m ³	0.0411 ± 0.0051		-	-
Reactive Silica	g/m ³ as SiO ₂	66.1 ± 1.4		-	-
Sulphate	g/m ³	1.43 ± 0.36		-	-
Non-Purgeable Organic Carbon (NPOC)	g/m ³	< 0.3 ± 0.20		-	-
Absorbance at 254 nm	AU cm ⁻¹	0.0064 ± 0.0021		-	-
Transmittance at 254 nm*	%T, 1 cm cell	98.5		-	-
Absorbance at 270 nm	AU cm ⁻¹	0.0060 ± 0.0022		-	-
Transmittance at 270 nm*	%T, 1 cm cell	98.6		-	-
Total Coliforms	cfu / 100mL	< 1 #1		-	-
Enterococci	cfu / 100mL	< 1 #1		-	-
Faecal Coliforms and E. coli profile					
Faecal Coliforms	cfu / 100mL	< 1 #1		-	-
Escherichia coli	cfu / 100mL	< 1 #1		< 1	No
Hazen Colour Profile					
Apparent Hazen Colour	Hazen units	< 10 ± 20		-	-
OrganoNitrogen & Phosphorus pesticides, trace, liq/liq GCMS					
Acetochlor	g/m ³	< 0.00004 ± 0.00042		-	-
Alachlor	g/m ³	< 0.00004 ± 0.00018		0.02	No
Atrazine	g/m ³	< 0.00004 ± 0.000024		0.002	No
Atrazine-desethyl	g/m ³	< 0.00004 ± 0.00041		-	-
Atrazine-desisopropyl	g/m ³	< 0.00008 ± 0.00018		-	-
Azaconazole	g/m ³	< 0.00002 ± 0.0000071		-	-
Azinphos-methyl	g/m ³	< 0.00008 ± 0.000036		0.004	No
Benalaxyl	g/m ³	< 0.00002 ± 0.0000094		-	-
Bitertanol	g/m ³	< 0.00008 ± 0.000048		-	-
Bromacil	g/m ³	< 0.00004 ± 0.000025		0.4	No

Sample Type: Aqueous				
Sample Name:	WSZ7 - Wharawhara Bore - G01610 04-May-2021 12:15 pm		Maximum Acceptable Value	Outside Limit
Lab Number:	2603083.2			
OrganoNitrogen & Phosphorus pesticides, trace, liq/liq GCMS				
Bromopropylate	g/m ³	< 0.00004 ± 0.000022	-	-
Butachlor	g/m ³	< 0.00004 ± 0.000021	-	-
Captan	g/m ³	< 0.00008 ± 0.000060	-	-
Carbaryl	g/m ³	< 0.00004 ± 0.000021	-	-
Carbofenothion	g/m ³	< 0.00004 ± 0.000022	-	-
Carbofuran	g/m ³	< 0.00004 ± 0.000022	0.008	No
Chlorfluazuron	g/m ³	< 0.00004 ± 0.000032	-	-
Chlorothalonil	g/m ³	< 0.00004 ± 0.000022	-	-
Chlorpyrifos	g/m ³	< 0.00004 ± 0.000022	0.04	No
Chlorpyrifos-methyl	g/m ³	< 0.00004 ± 0.000022	-	-
Chlortoluron	g/m ³	< 0.00008 ± 0.000062	0.04	No
Cyanazine	g/m ³	< 0.00004 ± 0.000021	0.0007	No
Cyfluthrin	g/m ³	< 0.00004 ± 0.000027	-	-
Cyhalothrin	g/m ³	< 0.00004 ± 0.000022	-	-
Cypermethrin	g/m ³	< 0.00008 ± 0.000043	-	-
Deltamethrin (including Tralomethrin)	g/m ³	< 0.00006 ± 0.000027	-	-
Diazinon	g/m ³	< 0.00002 ± 0.0000083	-	-
Dichlofluanid	g/m ³	< 0.00004 ± 0.00018	-	-
Dichloran	g/m ³	< 0.0002 ± 0.000089	-	-
Dichlorvos	g/m ³	< 0.00008 ± 0.00018	-	-
Difenoconazole	g/m ³	< 0.00008 ± 0.000043	-	-
Dimethoate	g/m ³	< 0.00008 ± 0.000057	0.008	No
Diphenylamine	g/m ³	< 0.00008 ± 0.00018	-	-
Diuron	g/m ³	< 0.00004 ± 0.000023	0.02	No
Fenpropimorph	g/m ³	< 0.00004 ± 0.000022	-	-
Fluazifop-butyl	g/m ³	< 0.00004 ± 0.000022	-	-
Fluometuron	g/m ³	< 0.00004 ± 0.000026	-	-
Flusilazole	g/m ³	< 0.00004 ± 0.000028	-	-
Fluvalinate	g/m ³	< 0.00004 ± 0.000011	-	-
Furalaxyl	g/m ³	< 0.00002 ± 0.0000079	-	-
Haloxifop-methyl	g/m ³	< 0.00004 ± 0.000027	-	-
Hexaconazole	g/m ³	< 0.00004 ± 0.000060	-	-
Hexazinone	g/m ³	< 0.00002 ± 0.000017	0.4	No
IPBC (3-Iodo-2-propynyl-n-butylcarbamate)	g/m ³	< 0.0002 ± 0.00011	-	-
Kresoxim-methyl	g/m ³	< 0.00002 ± 0.000019	-	-
Linuron	g/m ³	< 0.00005 ± 0.000021	-	-
Malathion	g/m ³	< 0.00004 ± 0.000022	-	-
Metalaxyl	g/m ³	< 0.00004 ± 0.000023	0.1	No
Metolachlor	g/m ³	< 0.00004 ± 0.000021	0.01	No
Metribuzin	g/m ³	< 0.00004 ± 0.000027	0.07	No
Molinate	g/m ³	< 0.00008 ± 0.000030	0.007	No
Myclobutanil	g/m ³	< 0.00004 ± 0.000033	-	-
Naled	g/m ³	< 0.0002 ± 0.000056	-	-
Norflurazon	g/m ³	< 0.00008 ± 0.000028	-	-
Oxadiazon	g/m ³	< 0.00004 ± 0.000022	0.2	No
Oxyfluorfen	g/m ³	< 0.00002 ± 0.000019	-	-
Paclobutrazol	g/m ³	< 0.00004 ± 0.000023	-	-
Parathion-ethyl	g/m ³	< 0.00004 ± 0.000022	-	-
Parathion-methyl	g/m ³	< 0.00004 ± 0.000022	-	-
Pendimethalin	g/m ³	< 0.00004 ± 0.000051	0.02	No
Permethrin	g/m ³	< 0.00002 ± 0.000020	-	-
Pirimicarb	g/m ³	< 0.00004 ± 0.000015	-	-
Pirimiphos-methyl	g/m ³	< 0.00004 ± 0.000024	0.1	No
Prochloraz	g/m ³	< 0.0002 ± 0.000059	-	-

Sample Type: Aqueous					
Sample Name:		WSZ7 - Wharawhara Bore - G01610 04-May-2021 12:15 pm		Maximum Acceptable Value	Outside Limit
Lab Number:		2603083.2			
OrganoNitrogen & Phosphorus pesticides, trace, liq/liq GCMS					
Procymidone	g/m ³	< 0.00004 ± 0.000021	0.7	No	
Prometryn	g/m ³	< 0.00002 ± 0.000020	-	-	
Propachlor	g/m ³	< 0.00004 ± 0.000024	-	-	
Propanil	g/m ³	< 0.0002 ± 0.000056	-	-	
Propazine	g/m ³	< 0.00002 ± 0.000020	0.07	No	
Propiconazole	g/m ³	< 0.00004 ± 0.000033	-	-	
Pyriproxyfen	g/m ³	< 0.00004 ± 0.000033	0.4	No	
Quizalofop-ethyl	g/m ³	< 0.00004 ± 0.000022	-	-	
Simazine	g/m ³	< 0.00004 ± 0.000013	0.002	No	
Simetryn	g/m ³	< 0.00004 ± 0.000022	-	-	
Sulfentrazone	g/m ³	< 0.0002 ± 0.000056	-	-	
TCMTB [2-(thiocyanomethylthio) benzothiazole, Busan]	g/m ³	< 0.00008 ± 0.000032	-	-	
Tebuconazole	g/m ³	< 0.00004 ± 0.000059	-	-	
Terbacil	g/m ³	< 0.00004 ± 0.000032	0.04	No	
Terbufos	g/m ³	< 0.00004 ± 0.000011	-	-	
Terbumeton	g/m ³	< 0.00004 ± 0.000021	-	-	
Terbuthylazine	g/m ³	< 0.00002 ± 0.000079	0.008	No	
Terbuthylazine-desethyl	g/m ³	< 0.00004 ± 0.000038	-	-	
Terbutryn	g/m ³	< 0.00004 ± 0.000023	-	-	
Thiabendazole	g/m ³	< 0.0002 ± 0.000063	0.4	No	
Thiobencarb	g/m ³	< 0.00004 ± 0.000022	-	-	
Tolyfluanid	g/m ³	< 0.00002 ± 0.000019	-	-	
Triazophos	g/m ³	< 0.00004 ± 0.000032	-	-	
Trifluralin	g/m ³	< 0.00004 ± 0.000027	0.03	No	
Vinclozolin	g/m ³	< 0.00004 ± 0.000048	-	-	
Hydrogen sulphide trace level profile*					
pH	pH Units	7.6 ± 0.2	-	-	
Electrical Conductivity (EC)	mS/m	13.2 ± 0.3	-	-	
Sample Temperature*	°C	20.0	-	-	
Un-ionised hydrogen sulphide	g/m ³	< 0.002	-	-	
Total Sulphide	g/m ³	< 0.002 ± 0.0014	-	-	
Acid Herbicides Screen in Water by LCMSMS					
Acifluorfen	g/m ³	< 0.0004 ± 0.00021	-	-	
Bentazone	g/m ³	< 0.0004 ± 0.00021	-	-	
Bromoxynil	g/m ³	< 0.0004 ± 0.00021	-	-	
Clopyralid	g/m ³	< 0.0004 ± 0.00021	-	-	
2,4-Dichlorophenoxyacetic acid (24D)	g/m ³	< 0.0004 ± 0.00021	0.04	No	
2,4-Dichlorophenoxybutyric acid (24DB)	g/m ³	< 0.0004 ± 0.00021	0.1	No	
Dicamba	g/m ³	< 0.0004 ± 0.00021	-	-	
Dichlorprop	g/m ³	< 0.0004 ± 0.00021	0.1	No	
Fluazifop	g/m ³	< 0.0004 ± 0.00021	-	-	
Fluroxypyr	g/m ³	< 0.0004 ± 0.00021	-	-	
Haloxypop	g/m ³	< 0.0004 ± 0.00021	-	-	
2-methyl-4-chlorophenoxyacetic acid (MCPA)	g/m ³	< 0.0004 ± 0.00021	0.002	No	
2-methyl-4-chlorophenoxybutanoic acid (MCPB)	g/m ³	< 0.0004 ± 0.00021	-	-	
Mecoprop	g/m ³	< 0.0004 ± 0.00021	0.01	No	
Oryzalin	g/m ³	< 0.0006 ± 0.00023	0.4	No	
2,3,4,6-Tetrachlorophenol (TCP)	g/m ³	< 0.0004 ± 0.00021	-	-	
2,4,5-trichlorophenoxypropionic acid (245TP, Fenoprop, Silvex)	g/m ³	< 0.0004 ± 0.00021	0.01	No	
2,4,5-Trichlorophenoxyacetic acid (245T)	g/m ³	< 0.0004 ± 0.00021	0.01	No	
Pentachlorophenol (PCP)	g/m ³	< 0.0004 ± 0.00021	0.009	No	
Picloram	g/m ³	< 0.0004 ± 0.00021	0.2	No	

Sample Type: Aqueous				
Sample Name:	WSZ7 - Wharawhara Bore - G01610 04-May-2021 12:15 pm		Maximum Acceptable Value	Outside Limit
Lab Number:	2603083.2			
Acid Herbicides Screen in Water by LCMSMS				
Quizalofop	g/m ³	< 0.0004 ± 0.00021	-	-
Triclopyr	g/m ³	< 0.0004 ± 0.00021	0.1	No
Multiresidue Extra Pesticides Trace in Water samples by Liq/liq				
Bendiocarb	g/m ³	< 0.00004 ± 0.000022	-	-
Benodanil	g/m ³	< 0.00008 ± 0.000039	-	-
Bifenthrin	g/m ³	< 0.00002 ± 0.0000079	-	-
Bromophos-ethyl	g/m ³	< 0.00004 ± 0.000022	-	-
Bupirimate	g/m ³	< 0.00004 ± 0.000021	-	-
Buprofezin	g/m ³	< 0.00004 ± 0.000021	-	-
Captafol	g/m ³	< 0.0002 ± 0.00014	-	-
Carbofenthion	g/m ³	< 0.00004 ± 0.000022	-	-
Carboxin	g/m ³	< 0.00004 ± 0.000024	-	-
Chlorfenvinphos	g/m ³	< 0.00004 ± 0.000022	-	-
Chlorpropham	g/m ³	< 0.00008 ± 0.000034	-	-
Chlozolinate	g/m ³	< 0.00004 ± 0.000022	-	-
Coumaphos	g/m ³	< 0.00008 ± 0.000038	-	-
Cyproconazole	g/m ³	< 0.00004 ± 0.000022	-	-
Cyprodinil	g/m ³	< 0.00004 ± 0.000027	-	-
Demeton-S-methyl	g/m ³	< 0.00008 ± 0.00018	-	-
Dichlobenil	g/m ³	< 0.00004 ± 0.000022	-	-
Dichlofenthion	g/m ³	< 0.00004 ± 0.000022	-	-
Dicofol	g/m ³	< 0.0002 ± 0.00014	-	-
Dicrotophos	g/m ³	< 0.00004 ± 0.000022	-	-
Dinocap	g/m ³	< 0.0003 ± 0.00012	-	-
Disulfoton	g/m ³	< 0.00004 ± 0.000023	-	-
EPN	g/m ³	< 0.00004 ± 0.000026	-	-
Esfenvalerate	g/m ³	< 0.00004 ± 0.000022	-	-
Ethion	g/m ³	< 0.00004 ± 0.000021	-	-
Etrimfos	g/m ³	< 0.00004 ± 0.000022	-	-
Famphur	g/m ³	< 0.00004 ± 0.000021	-	-
Fenamiphos	g/m ³	< 0.00004 ± 0.000022	-	-
Fenarimol	g/m ³	< 0.00004 ± 0.000023	-	-
Fenitrothion	g/m ³	< 0.00004 ± 0.000022	-	-
Fenpropathrin	g/m ³	< 0.00004 ± 0.000022	-	-
Fensulfothion	g/m ³	< 0.00004 ± 0.000026	-	-
Fenthion	g/m ³	< 0.00004 ± 0.000024	-	-
Fenvalerate	g/m ³	< 0.00004 ± 0.000021	-	-
Folpet	g/m ³	< 0.00008 ± 0.000027	-	-
Hexythiazox	g/m ³	< 0.0002 ± 0.000071	-	-
Imazalil	g/m ³	< 0.0002 ± 0.000059	-	-
Indoxacarb	g/m ³	< 0.00004 ± 0.000022	-	-
Iodofenphos	g/m ³	< 0.00004 ± 0.000015	-	-
Isazophos	g/m ³	< 0.00004 ± 0.000025	-	-
Isofenphos	g/m ³	< 0.00002 ± 0.000018	-	-
Leptophos	g/m ³	< 0.00004 ± 0.000023	-	-
Methacrifos	g/m ³	< 0.00004 ± 0.000022	-	-
Methidathion	g/m ³	< 0.00004 ± 0.000022	-	-
Methiocarb	g/m ³	< 0.00004 ± 0.000033	-	-
Mevinphos	g/m ³	< 0.00008 ± 0.000040	-	-
Nitrofen	g/m ³	< 0.00008 ± 0.000034	-	-
Nitrothal-Isopropyl	g/m ³	< 0.00004 ± 0.000023	-	-
Oxychlordane	g/m ³	< 0.00002 ± 0.000033	-	-
Penconazole	g/m ³	< 0.00004 ± 0.000022	-	-
Phorate	g/m ³	< 0.00008 ± 0.000028	-	-
Phosmet	g/m ³	< 0.00004 ± 0.000021	-	-

Sample Type: Aqueous				
Sample Name:	WSZ7 - Wharawhara Bore - G01610 04-May-2021 12:15 pm		Maximum Acceptable Value	Outside Limit
Lab Number:	2603083.2			
Multiresidue Extra Pesticides Trace in Water samples by Liq/liq				
Phosphamidon	g/m ³	< 0.00004 ± 0.000057	-	-
Propetamphos	g/m ³	< 0.00006 ± 0.000027	-	-
Propham	g/m ³	< 0.00004 ± 0.000023	-	-
Prothiofos	g/m ³	< 0.00004 ± 0.000022	-	-
Pyrazophos	g/m ³	< 0.00004 ± 0.000022	-	-
Pyrifenox	g/m ³	< 0.00004 ± 0.000052	-	-
Pyrimethanil	g/m ³	< 0.00004 ± 0.000021	-	-
Quintozene	g/m ³	< 0.00008 ± 0.000026	-	-
Sulfotep	g/m ³	< 0.00004 ± 0.000022	-	-
Tebufenpyrad	g/m ³	< 0.00002 ± 0.000019	-	-
Tetrachlorvinphos	g/m ³	< 0.00004 ± 0.000021	-	-
Thiometon	g/m ³	< 0.00008 ± 0.000032	-	-
Triadimefon	g/m ³	< 0.00004 ± 0.000021	-	-
Organochlorine Pesticides Trace in water, By Liq/Liq				
Aldrin	g/m ³	< 0.000005 ± 0.0000034	-	-
alpha-BHC	g/m ³	< 0.000010 ± 0.0000067	-	-
beta-BHC	g/m ³	< 0.000010 ± 0.0000067	-	-
delta-BHC	g/m ³	< 0.000010 ± 0.0000067	-	-
gamma-BHC (Lindane)	g/m ³	< 0.000010 ± 0.0000067	0.002	No
cis-Chlordane	g/m ³	< 0.000005 ± 0.0000034	-	-
trans-Chlordane	g/m ³	< 0.000005 ± 0.0000034	-	-
2,4'-DDD	g/m ³	< 0.000010 ± 0.0000067	-	-
4,4'-DDD	g/m ³	< 0.000010 ± 0.0000067	-	-
2,4'-DDE	g/m ³	< 0.000010 ± 0.0000067	-	-
4,4'-DDE	g/m ³	< 0.000010 ± 0.0000067	-	-
2,4'-DDT	g/m ³	< 0.000010 ± 0.0000067	-	-
4,4'-DDT	g/m ³	< 0.000010 ± 0.0000067	-	-
Total DDT Isomers	g/m ³	< 0.00006	0.001	No
Dieldrin	g/m ³	< 0.000005 ± 0.0000034	-	-
Endosulfan I	g/m ³	< 0.000010 ± 0.0000067	-	-
Endosulfan II	g/m ³	< 0.000010 ± 0.0000067	-	-
Endosulfan sulphate	g/m ³	< 0.000010 ± 0.0000067	-	-
Endrin	g/m ³	< 0.000005 ± 0.0000034	0.001	No
Endrin aldehyde	g/m ³	< 0.000005 ± 0.0000034	-	-
Endrin ketone	g/m ³	< 0.000010 ± 0.0000067	-	-
Heptachlor	g/m ³	< 0.000005 ± 0.0000034	-	-
Heptachlor epoxide	g/m ³	< 0.000005 ± 0.0000034	-	-
Hexachlorobenzene	g/m ³	< 0.00004 ± 0.000027	-	-
Methoxychlor	g/m ³	< 0.000005 ± 0.0000034	0.02	No
Polycyclic Aromatic Hydrocarbons Trace in Water, By Liq/Liq				
Acenaphthene	g/m ³	< 0.000005 ± 0.0000034	-	-
Acenaphthylene	g/m ³	< 0.000005 ± 0.0000034	-	-
Anthracene	g/m ³	< 0.000005 ± 0.0000034	-	-
Benzo[a]anthracene	g/m ³	< 0.000005 ± 0.0000034	-	-
Benzo[a]pyrene (BAP)	g/m ³	< 0.000005 ± 0.0000034	0.0007	No
Benzo[b]fluoranthene + Benzo[j]fluoranthene	g/m ³	< 0.000005 ± 0.0000034	-	-
Benzo[g,h,i]perylene	g/m ³	< 0.000005 ± 0.0000034	-	-
Benzo[k]fluoranthene	g/m ³	< 0.000005 ± 0.0000034	-	-
Chrysene	g/m ³	< 0.000005 ± 0.0000034	-	-
Dibenzo[a,h]anthracene	g/m ³	< 0.000005 ± 0.0000034	-	-
Fluoranthene	g/m ³	< 0.000005 ± 0.0000034	-	-
Fluorene	g/m ³	< 0.000005 ± 0.0000055	-	-
Indeno(1,2,3-c,d)pyrene	g/m ³	< 0.000005 ± 0.0000034	-	-
Naphthalene	g/m ³	< 0.00003 ± 0.000020	-	-

Sample Type: Aqueous				
Sample Name:	WSZ7 - Wharawhara Bore - G01610 04-May-2021 12:15 pm		Maximum Acceptable Value	Outside Limit
Lab Number:	2603083.2			
Polycyclic Aromatic Hydrocarbons Trace in Water, By Liq/Liq				
Phenanthrene	g/m ³	< 0.000005 ± 0.000013	-	-
Pyrene	g/m ³	< 0.000005 ± 0.0000057	-	-
BTEX in VOC Water by Headspace GC-MS				
Benzene	g/m ³	< 0.0003 ± 0.00032	0.01	No
Ethylbenzene	g/m ³	< 0.0005 ± 0.00034	0.3	No
Toluene	g/m ³	< 0.0003 ± 0.00060	0.8	No
m&p-Xylene	g/m ³	< 0.0005 ± 0.00034	-	-
o-Xylene	g/m ³	< 0.0003 ± 0.00031	-	-
Halogenated Aliphatics in VOC Water by Headspace GC-MS				
Bromomethane (Methyl Bromide)	g/m ³	< 0.0003 ± 0.00031	-	-
Carbon tetrachloride	g/m ³	< 0.0003 ± 0.00030	0.005	No
Chloroethane	g/m ³	< 0.0003 ± 0.00031	-	-
Chloromethane	g/m ³	< 0.0003 ± 0.00031	-	-
1,2-Dibromo-3-chloropropane	g/m ³	< 0.0003 ± 0.00026	0.001	No
1,2-Dibromoethane (ethylene dibromide, EDB)	g/m ³	< 0.0003 ± 0.00025	0.0004	No
Dibromomethane	g/m ³	< 0.0003 ± 0.00031	-	-
Dichlorodifluoromethane	g/m ³	< 0.0003 ± 0.00030	-	-
1,1-Dichloroethane	g/m ³	< 0.0003 ± 0.00031	-	-
1,2-Dichloroethane	g/m ³	< 0.0003 ± 0.00030	0.03	No
1,1-Dichloroethene	g/m ³	< 0.0003 ± 0.00032	-	-
cis-1,2-Dichloroethene	g/m ³	< 0.0003 ± 0.00031	-	-
trans-1,2-Dichloroethene	g/m ³	< 0.0003 ± 0.00030	-	-
Dichloromethane (methylene chloride)	g/m ³	< 0.010 ± 0.0067	0.02	No
1,2-Dichloropropane	g/m ³	< 0.0003 ± 0.00031	0.05	No
1,3-Dichloropropane	g/m ³	< 0.0003 ± 0.00031	-	-
1,1-Dichloropropene	g/m ³	< 0.0003 ± 0.00031	-	-
cis-1,3-Dichloropropene	g/m ³	< 0.0005 ± 0.00034	-	-
trans-1,3-Dichloropropene	g/m ³	< 0.0005 ± 0.00034	-	-
Hexachlorobutadiene	g/m ³	< 0.0003 ± 0.00030	0.0007	No
1,1,1,2-Tetrachloroethane	g/m ³	< 0.0003 ± 0.00031	-	-
1,1,2,2-Tetrachloroethane	g/m ³	< 0.0003 ± 0.00031	-	-
Tetrachloroethene (tetrachloroethylene)	g/m ³	< 0.0003 ± 0.00032	0.05	No
1,1,1-Trichloroethane	g/m ³	< 0.0003 ± 0.00030	-	-
1,1,2-Trichloroethane	g/m ³	< 0.0003 ± 0.00031	-	-
Trichloroethene (trichloroethylene)	g/m ³	< 0.0003 ± 0.00031	0.02	No
Trichlorofluoromethane	g/m ³	< 0.0003 ± 0.00032	-	-
1,2,3-Trichloropropane	g/m ³	< 0.0003 ± 0.00031	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	g/m ³	< 0.0003 ± 0.00027	-	-
Vinyl chloride	g/m ³	< 0.0003 ± 0.00030	0.0003	No
Halogenated Aromatics in VOC Water by Headspace GC-MS				
Chlorobenzene (monochlorobenzene)	g/m ³	< 0.0003 ± 0.00031	-	-
1,2-Dichlorobenzene	g/m ³	< 0.0003 ± 0.00031	1.5	No
1,3-Dichlorobenzene	g/m ³	< 0.0003 ± 0.00031	-	-
1,4-Dichlorobenzene	g/m ³	< 0.0003 ± 0.00031	0.4	No
1,2,3-Trichlorobenzene	g/m ³	< 0.0003 ± 0.00029	-	-
1,2,4-Trichlorobenzene	g/m ³	< 0.0003 ± 0.00029	-	-
1,3,5-Trichlorobenzene	g/m ³	< 0.0003 ± 0.00031	-	-
Bromobenzene	g/m ³	< 0.0003 ± 0.00031	-	-
2-Chlorotoluene	g/m ³	< 0.0003 ± 0.00031	-	-
4-Chlorotoluene	g/m ³	< 0.0003 ± 0.00031	-	-
Monoaromatic Hydrocarbons in VOC Water by Headspace GC-MS				
n-Butylbenzene	g/m ³	< 0.0005 ± 0.00034	-	-
tert-Butylbenzene	g/m ³	< 0.0003 ± 0.00031	-	-
4-Isopropyltoluene (p-Cymene)	g/m ³	< 0.0005 ± 0.00034	-	-

Sample Type: Aqueous				
Sample Name:		WSZ7 - Wharawhara Bore - G01610 04-May-2021 12:15 pm	Maximum Acceptable Value	Outside Limit
Lab Number:		2603083.2		
Monoaromatic Hydrocarbons in VOC Water by Headspace GC-MS				
Isopropylbenzene (Cumene)	g/m ³	< 0.0003 ± 0.00031	-	-
n-Propylbenzene	g/m ³	< 0.0005 ± 0.00034	-	-
sec-Butylbenzene	g/m ³	< 0.0003 ± 0.00031	-	-
Styrene	g/m ³	< 0.0005 ± 0.00034	0.03	No
1,2,4-Trimethylbenzene	g/m ³	< 0.0003 ± 0.00031	-	-
1,3,5-Trimethylbenzene	g/m ³	< 0.0003 ± 0.00031	-	-
Ketones in VOC Water by Headspace GC-MS				
Acetone	g/m ³	< 0.05 ± 0.034	-	-
2-Butanone (MEK)	g/m ³	< 0.05 ± 0.016	-	-
Methyl tert-butylether (MTBE)	g/m ³	< 0.0003 ± 0.0031	-	-
4-Methylpentan-2-one (MIBK)	g/m ³	< 0.010 ± 0.0045	-	-
Trihalomethanes in VOC Water by Headspace GC-MS				
Bromodichloromethane	g/m ³	< 0.0003 ± 0.00030	0.06	No
Bromoform (tribromomethane)	g/m ³	< 0.0005 ± 0.00034	0.1	No
Chloroform (Trichloromethane)	g/m ³	< 0.0003 ± 0.00030	0.4	No
Dibromochloromethane	g/m ³	< 0.0003 ± 0.00030	0.15	No
Other VOC in Water by Headspace GC-MS				
Carbon disulphide	g/m ³	< 0.0005 ± 0.0031	-	-
Naphthalene	g/m ³	< 0.0005 ± 0.00034	-	-

Sample Name:		WS79 - Wharawhara Bore - G01611 04-May-2021 12:05 pm	Maximum Acceptable Value	Outside Limit
Lab Number:		2603083.3		
Individual Tests				
Turbidity	NTU	0.090 ± 0.035	-	-
Total Alkalinity	g/m ³ as CaCO ₃	47.5 ± 2.1	-	-
Carbonate	g/m ³ at 25°C	< 1.0 ± 0.030	-	-
Bicarbonate	g/m ³ at 25°C	57.7 ± 3.0	-	-
Free Carbon Dioxide	g/m ³ at 25°C	2.4 ± 1.1	-	-
Total Hardness	g/m ³ as CaCO ₃	33.3 ± 1.4	-	-
Total Suspended Solids	g/m ³	< 3 ± 2.1	-	-
Total Dissolved Solids (TDS)	g/m ³	116 ± 16	-	-
Dissolved Aluminium	g/m ³	< 0.003 ± 0.0021	-	-
Dissolved Antimony	g/m ³	< 0.0002 ± 0.00014	-	-
Dissolved Arsenic	g/m ³	< 0.0010 ± 0.00067	-	-
Dissolved Barium	g/m ³	0.00679 ± 0.00033	-	-
Total Boron	g/m ³	0.0128 ± 0.0039	1.4	No
Dissolved Cadmium	g/m ³	< 0.00005 ± 0.000034	-	-
Total Calcium	g/m ³	7.93 ± 0.32	-	-
Dissolved Chromium	g/m ³	0.00076 ± 0.00034	-	-
Total Copper	g/m ³	0.00055 ± 0.00036	2	No
Total Iron	g/m ³	< 0.021 ± 0.014	-	-
Dissolved Lead	g/m ³	0.000174 ± 0.000068	-	-
Total Magnesium	g/m ³	3.28 ± 0.27	-	-
Total Manganese	g/m ³	< 0.00053 ± 0.00036	0.4	No
Dissolved Mercury	g/m ³	< 0.00008 ± 0.000054	-	-
Dissolved Molybdenum	g/m ³	< 0.0002 ± 0.00014	-	-
Dissolved Nickel	g/m ³	< 0.0005 ± 0.00034	-	-
Dissolved Selenium	g/m ³	< 0.0010 ± 0.00067	-	-
Dissolved Silver	g/m ³	< 0.00010 ± 0.000067	-	-
Total Sodium	g/m ³	10.21 ± 0.62	-	-
Dissolved Tin	g/m ³	< 0.0005 ± 0.00034	-	-
Total Zinc	g/m ³	0.00287 ± 0.00077	-	-
Bromate	g/m ³	< 0.005 ± 0.0034	0.01	No
Chloride	g/m ³	7.91 ± 0.59	-	-

Sample Type: Aqueous					
Sample Name:		WS79 - Wharawhara Bore - G01611 04-May-2021 12:05 pm		Maximum Acceptable Value	Outside Limit
Lab Number:		2603083.3			
Individual Tests					
Fluoride	g/m ³	0.054 ± 0.041		1.5	No
Total Ammoniacal-N	g/m ³	< 0.010 ± 0.0067		-	-
Nitrite-N	g/m ³	< 0.002 ± 0.0014		0.06 0.91 (short term)	No
Nitrate-N	g/m ³	0.082 ± 0.011		11.3	No
Nitrate-N + Nitrite-N	g/m ³	0.082 ± 0.010		-	-
Reactive Silica	g/m ³ as SiO ₂	59.5 ± 1.2		-	-
Sulphate	g/m ³	1.44 ± 0.36		-	-
Non-Purgeable Organic Carbon (NPOC)	g/m ³	< 0.3 ± 0.20		-	-
Absorbance at 254 nm	AU cm ⁻¹	0.0042 ± 0.0021		-	-
Transmittance at 254 nm*	%T, 1 cm cell	99.0		-	-
Absorbance at 270 nm	AU cm ⁻¹	0.0042 ± 0.0021		-	-
Transmittance at 270 nm*	%T, 1 cm cell	99.0		-	-
Total Coliforms	cfu / 100mL	< 1 #1		-	-
Enterococci	cfu / 100mL	< 1 #1		-	-
Faecal Coliforms and E. coli profile					
Faecal Coliforms	cfu / 100mL	< 1 #1		-	-
Escherichia coli	cfu / 100mL	< 1 #1		< 1	No
Hazen Colour Profile					
Apparent Hazen Colour	Hazen units	< 10 ± 20		-	-
OrganoNitrogen & Phosphorus pesticides, trace, liq/liq GCMS					
Acetochlor	g/m ³	< 0.00004 ± 0.00042		-	-
Alachlor	g/m ³	< 0.00004 ± 0.00018		0.02	No
Atrazine	g/m ³	< 0.00004 ± 0.000024		0.002	No
Atrazine-desethyl	g/m ³	< 0.00004 ± 0.00041		-	-
Atrazine-desisopropyl	g/m ³	< 0.00008 ± 0.00018		-	-
Azaconazole	g/m ³	< 0.00002 ± 0.0000071		-	-
Azinphos-methyl	g/m ³	< 0.00008 ± 0.000036		0.004	No
Benalaxyl	g/m ³	< 0.00002 ± 0.0000094		-	-
Bitertanol	g/m ³	< 0.00008 ± 0.000048		-	-
Bromacil	g/m ³	< 0.00004 ± 0.000025		0.4	No
Bromopropylate	g/m ³	< 0.00004 ± 0.000022		-	-
Butachlor	g/m ³	< 0.00004 ± 0.000021		-	-
Captan	g/m ³	< 0.00008 ± 0.000060		-	-
Carbaryl	g/m ³	< 0.00004 ± 0.000021		-	-
Carbofenthion	g/m ³	< 0.00004 ± 0.000022		-	-
Carbofuran	g/m ³	< 0.00004 ± 0.000022		0.008	No
Chlorfluazuron	g/m ³	< 0.00004 ± 0.000032		-	-
Chlorothalonil	g/m ³	< 0.00004 ± 0.000022		-	-
Chlorpyrifos	g/m ³	< 0.00004 ± 0.000022		0.04	No
Chlorpyrifos-methyl	g/m ³	< 0.00004 ± 0.000022		-	-
Chlortoluron	g/m ³	< 0.00008 ± 0.000062		0.04	No
Cyanazine	g/m ³	< 0.00004 ± 0.000021		0.0007	No
Cyfluthrin	g/m ³	< 0.00004 ± 0.000027		-	-
Cyhalothrin	g/m ³	< 0.00004 ± 0.000022		-	-
Cypermethrin	g/m ³	< 0.00008 ± 0.000043		-	-
Deltamethrin (including Tralomethrin)	g/m ³	< 0.00006 ± 0.000027		-	-
Diazinon	g/m ³	< 0.00002 ± 0.0000083		-	-
Dichlofluanid	g/m ³	< 0.00004 ± 0.00018		-	-
Dichloran	g/m ³	< 0.0002 ± 0.000089		-	-
Dichlorvos	g/m ³	< 0.00008 ± 0.00018		-	-
Difenoconazole	g/m ³	< 0.00008 ± 0.000043		-	-
Dimethoate	g/m ³	< 0.00008 ± 0.000057		0.008	No
Diphenylamine	g/m ³	< 0.00008 ± 0.00018		-	-
Diuron	g/m ³	< 0.00004 ± 0.000023		0.02	No

Sample Type: Aqueous			
Sample Name:	WS79 - Wharawhara Bore - G01611 04-May-2021 12:05 pm	Maximum Acceptable Value	Outside Limit
Lab Number:	2603083.3		
OrganoNitrogen & Phosphorus pesticides, trace, liq/liq GCMS			
Fenpropimorph	g/m ³	< 0.00004 ± 0.000022	-
Fluazifop-butyl	g/m ³	< 0.00004 ± 0.000022	-
Fluometuron	g/m ³	< 0.00004 ± 0.000026	-
Flusilazole	g/m ³	< 0.00004 ± 0.000028	-
Fluvalinate	g/m ³	< 0.00004 ± 0.000011	-
Furalaxyl	g/m ³	< 0.00002 ± 0.0000079	-
Haloxifop-methyl	g/m ³	< 0.00004 ± 0.000027	-
Hexaconazole	g/m ³	< 0.00004 ± 0.000060	-
Hexazinone	g/m ³	< 0.00002 ± 0.000017	0.4
IPBC (3-Iodo-2-propynyl-n-butylcarbamate)	g/m ³	< 0.0002 ± 0.00011	-
Kresoxim-methyl	g/m ³	< 0.00002 ± 0.000019	-
Linuron	g/m ³	< 0.00005 ± 0.000021	-
Malathion	g/m ³	< 0.00004 ± 0.000022	-
Metalaxyl	g/m ³	< 0.00004 ± 0.000023	0.1
Metolachlor	g/m ³	< 0.00004 ± 0.000021	0.01
Metribuzin	g/m ³	< 0.00004 ± 0.000027	0.07
Molinate	g/m ³	< 0.00008 ± 0.000030	0.007
Myclobutanil	g/m ³	< 0.00004 ± 0.000033	-
Naled	g/m ³	< 0.0002 ± 0.000056	-
Norflurazon	g/m ³	< 0.00008 ± 0.000028	-
Oxadiazon	g/m ³	< 0.00004 ± 0.000022	0.2
Oxyfluorfen	g/m ³	< 0.00002 ± 0.000019	-
Paclobutrazol	g/m ³	< 0.00004 ± 0.000023	-
Parathion-ethyl	g/m ³	< 0.00004 ± 0.000022	-
Parathion-methyl	g/m ³	< 0.00004 ± 0.000022	-
Pendimethalin	g/m ³	< 0.00004 ± 0.000051	0.02
Permethrin	g/m ³	< 0.00002 ± 0.000020	-
Pirimicarb	g/m ³	< 0.00004 ± 0.000015	-
Pirimiphos-methyl	g/m ³	< 0.00004 ± 0.000024	0.1
Prochloraz	g/m ³	< 0.0002 ± 0.000059	-
Procymidone	g/m ³	< 0.00004 ± 0.000021	0.7
Prometryn	g/m ³	< 0.00002 ± 0.000020	-
Propachlor	g/m ³	< 0.00004 ± 0.000024	-
Propanil	g/m ³	< 0.0002 ± 0.000056	-
Propazine	g/m ³	< 0.00002 ± 0.000020	0.07
Propiconazole	g/m ³	< 0.00004 ± 0.000033	-
Pyriproxyfen	g/m ³	< 0.00004 ± 0.000033	0.4
Quizalofop-ethyl	g/m ³	< 0.00004 ± 0.000022	-
Simazine	g/m ³	< 0.00004 ± 0.000013	0.002
Simetryn	g/m ³	< 0.00004 ± 0.000022	-
Sulfentrazone	g/m ³	< 0.0002 ± 0.000056	-
TCMTB [2-(thiocyanomethylthio)benzothiazole, Busan]	g/m ³	< 0.00008 ± 0.000032	-
Tebuconazole	g/m ³	< 0.00004 ± 0.000059	-
Terbacil	g/m ³	< 0.00004 ± 0.000032	0.04
Terbufos	g/m ³	< 0.00004 ± 0.000011	-
Terbumeton	g/m ³	< 0.00004 ± 0.000021	-
Terbutylazine	g/m ³	< 0.00002 ± 0.0000079	0.008
Terbutylazine-desethyl	g/m ³	< 0.00004 ± 0.000038	-
Terbutryn	g/m ³	< 0.00004 ± 0.000023	-
Thiabendazole	g/m ³	< 0.0002 ± 0.000063	0.4
Thiobencarb	g/m ³	< 0.00004 ± 0.000022	-
Tolyfluanid	g/m ³	< 0.00002 ± 0.000019	-
Triazophos	g/m ³	< 0.00004 ± 0.000032	-
Trifluralin	g/m ³	< 0.00004 ± 0.000027	0.03

Sample Type: Aqueous				
Sample Name:	WS79 - Wharawhara Bore - G01611 04-May-2021 12:05 pm		Maximum Acceptable Value	Outside Limit
Lab Number:	2603083.3			
OrganoNitrogen & Phosphorus pesticides, trace, liq/liq GCMS				
Vinclozolin	g/m ³	< 0.00004 ± 0.000048	-	-
Hydrogen sulphide trace level profile*				
pH	pH Units	7.6 ± 0.2	-	-
Electrical Conductivity (EC)	mS/m	12.2 ± 0.3	-	-
Sample Temperature*	°C	20.0	-	-
Un-ionised hydrogen sulphide	g/m ³	< 0.002	-	-
Total Sulphide	g/m ³	< 0.002 ± 0.0014	-	-
Acid Herbicides Screen in Water by LCMSMS				
Acifluorfen	g/m ³	< 0.0004 ± 0.00021	-	-
Bentazone	g/m ³	< 0.0004 ± 0.00021	-	-
Bromoxynil	g/m ³	< 0.0004 ± 0.00021	-	-
Clopyralid	g/m ³	< 0.0004 ± 0.00021	-	-
2,4-Dichlorophenoxyacetic acid (24D)	g/m ³	< 0.0004 ± 0.00021	0.04	No
2,4-Dichlorophenoxybutyric acid (24DB)	g/m ³	< 0.0004 ± 0.00021	0.1	No
Dicamba	g/m ³	< 0.0004 ± 0.00021	-	-
Dichlorprop	g/m ³	< 0.0004 ± 0.00021	0.1	No
Fluazifop	g/m ³	< 0.0004 ± 0.00021	-	-
Fluroxypyr	g/m ³	< 0.0004 ± 0.00021	-	-
Haloxypop	g/m ³	< 0.0004 ± 0.00021	-	-
2-methyl-4-chlorophenoxyacetic acid (MCPA)	g/m ³	< 0.0004 ± 0.00021	0.002	No
2-methyl-4-chlorophenoxybutanoic acid (MCPB)	g/m ³	< 0.0004 ± 0.00021	-	-
Mecoprop	g/m ³	< 0.0004 ± 0.00021	0.01	No
Oryzalin	g/m ³	< 0.0006 ± 0.00023	0.4	No
2,3,4,6-Tetrachlorophenol (TCP)	g/m ³	< 0.0004 ± 0.00021	-	-
2,4,5-trichlorophenoxypropionic acid (245TP,Fenoprop, Silvex)	g/m ³	< 0.0004 ± 0.00021	0.01	No
2,4,5-Trichlorophenoxyacetic acid (245T)	g/m ³	< 0.0004 ± 0.00021	0.01	No
Pentachlorophenol (PCP)	g/m ³	< 0.0004 ± 0.00021	0.009	No
Picloram	g/m ³	< 0.0004 ± 0.00021	0.2	No
Quizalofop	g/m ³	< 0.0004 ± 0.00021	-	-
Triclopyr	g/m ³	< 0.0004 ± 0.00021	0.1	No
Multiresidue Extra Pesticides Trace in Water samples by Liq/liq				
Bendiocarb	g/m ³	< 0.00004 ± 0.000022	-	-
Benodanil	g/m ³	< 0.00008 ± 0.000039	-	-
Bifenthrin	g/m ³	< 0.00002 ± 0.0000079	-	-
Bromophos-ethyl	g/m ³	< 0.00004 ± 0.000022	-	-
Bupirimate	g/m ³	< 0.00004 ± 0.000021	-	-
Buprofezin	g/m ³	< 0.00004 ± 0.000021	-	-
Captafol	g/m ³	< 0.0002 ± 0.00014	-	-
Carbofenthion	g/m ³	< 0.00004 ± 0.000022	-	-
Carboxin	g/m ³	< 0.00004 ± 0.000024	-	-
Chlorfenvinphos	g/m ³	< 0.00004 ± 0.000022	-	-
Chlorpropham	g/m ³	< 0.00008 ± 0.000034	-	-
Chlozolinat	g/m ³	< 0.00004 ± 0.000022	-	-
Coumaphos	g/m ³	< 0.00008 ± 0.000038	-	-
Cyproconazole	g/m ³	< 0.00004 ± 0.000022	-	-
Cyprodinil	g/m ³	< 0.00004 ± 0.000027	-	-
Demeton-S-methyl	g/m ³	< 0.00008 ± 0.00018	-	-
Dichlobenil	g/m ³	< 0.00004 ± 0.000022	-	-
Dichlofenthion	g/m ³	< 0.00004 ± 0.000022	-	-
Dicofol	g/m ³	< 0.0002 ± 0.00014	-	-
Dicrotophos	g/m ³	< 0.00004 ± 0.000022	-	-
Dinocap	g/m ³	< 0.0003 ± 0.00012	-	-

Sample Type: Aqueous				
Sample Name:	WS79 - Wharawhara Bore - G01611 04-May-2021 12:05 pm		Maximum Acceptable Value	Outside Limit
Lab Number:	2603083.3			
Multiresidue Extra Pesticides Trace in Water samples by Liq/liq				
Disulfoton	g/m ³	< 0.00004 ± 0.000023	-	-
EPN	g/m ³	< 0.00004 ± 0.000026	-	-
Esfenvalerate	g/m ³	< 0.00004 ± 0.000022	-	-
Ethion	g/m ³	< 0.00004 ± 0.000021	-	-
Etrimfos	g/m ³	< 0.00004 ± 0.000022	-	-
Famphur	g/m ³	< 0.00004 ± 0.000021	-	-
Fenamiphos	g/m ³	< 0.00004 ± 0.000022	-	-
Fenarimol	g/m ³	< 0.00004 ± 0.000023	-	-
Fenitrothion	g/m ³	< 0.00004 ± 0.000022	-	-
Fenpropathrin	g/m ³	< 0.00004 ± 0.000022	-	-
Fensulfothion	g/m ³	< 0.00004 ± 0.000026	-	-
Fenthion	g/m ³	< 0.00004 ± 0.000024	-	-
Fenvalerate	g/m ³	< 0.00004 ± 0.000021	-	-
Folpet	g/m ³	< 0.00008 ± 0.000027	-	-
Hexythiazox	g/m ³	< 0.0002 ± 0.000071	-	-
Imazalil	g/m ³	< 0.0002 ± 0.000059	-	-
Indoxacarb	g/m ³	< 0.00004 ± 0.000022	-	-
Iodofenphos	g/m ³	< 0.00004 ± 0.000015	-	-
Isazophos	g/m ³	< 0.00004 ± 0.000025	-	-
Isofenphos	g/m ³	< 0.00002 ± 0.000018	-	-
Leptophos	g/m ³	< 0.00004 ± 0.000023	-	-
Methacrifos	g/m ³	< 0.00004 ± 0.000022	-	-
Methidathion	g/m ³	< 0.00004 ± 0.000022	-	-
Methiocarb	g/m ³	< 0.00004 ± 0.000033	-	-
Mevinphos	g/m ³	< 0.00008 ± 0.000040	-	-
Nitrofen	g/m ³	< 0.00008 ± 0.000034	-	-
Nitrothal-Isopropyl	g/m ³	< 0.00004 ± 0.000023	-	-
Oxychlorane	g/m ³	< 0.00002 ± 0.000033	-	-
Penconazole	g/m ³	< 0.00004 ± 0.000022	-	-
Phorate	g/m ³	< 0.00008 ± 0.000028	-	-
Phosmet	g/m ³	< 0.00004 ± 0.000021	-	-
Phosphamidon	g/m ³	< 0.00004 ± 0.000057	-	-
Propetamphos	g/m ³	< 0.00006 ± 0.000027	-	-
Propham	g/m ³	< 0.00004 ± 0.000023	-	-
Prothiofos	g/m ³	< 0.00004 ± 0.000022	-	-
Pyrazophos	g/m ³	< 0.00004 ± 0.000022	-	-
Pyrifenox	g/m ³	< 0.00004 ± 0.000052	-	-
Pyrimethanil	g/m ³	< 0.00004 ± 0.000021	-	-
Quintozene	g/m ³	< 0.00008 ± 0.000026	-	-
Sulfotep	g/m ³	< 0.00004 ± 0.000022	-	-
Tebufenpyrad	g/m ³	< 0.00002 ± 0.000019	-	-
Tetrachlorvinphos	g/m ³	< 0.00004 ± 0.000021	-	-
Thiometon	g/m ³	< 0.00008 ± 0.000032	-	-
Triadimefon	g/m ³	< 0.00004 ± 0.000021	-	-
Organochlorine Pesticides Trace in water, By Liq/Liq				
Aldrin	g/m ³	< 0.000005 ± 0.0000034	-	-
alpha-BHC	g/m ³	< 0.000010 ± 0.0000067	-	-
beta-BHC	g/m ³	< 0.000010 ± 0.0000067	-	-
delta-BHC	g/m ³	< 0.000010 ± 0.0000067	-	-
gamma-BHC (Lindane)	g/m ³	< 0.000010 ± 0.0000067	0.002	No
cis-Chlordane	g/m ³	< 0.000005 ± 0.0000034	-	-
trans-Chlordane	g/m ³	< 0.000005 ± 0.0000034	-	-
2,4'-DDD	g/m ³	< 0.000010 ± 0.0000067	-	-
4,4'-DDD	g/m ³	< 0.000010 ± 0.0000067	-	-
2,4'-DDE	g/m ³	< 0.000010 ± 0.0000067	-	-

Sample Type: Aqueous				
Sample Name:	WS79 - Wharawhara Bore - G01611 04-May-2021 12:05 pm		Maximum Acceptable Value	Outside Limit
Lab Number:	2603083.3			
Organochlorine Pesticides Trace in water, By Liq/Liq				
4,4'-DDE	g/m ³	< 0.000010 ± 0.0000067	-	-
2,4'-DDT	g/m ³	< 0.000010 ± 0.0000067	-	-
4,4'-DDT	g/m ³	< 0.000010 ± 0.0000067	-	-
Total DDT Isomers	g/m ³	< 0.00006	0.001	No
Dieldrin	g/m ³	< 0.000005 ± 0.0000034	-	-
Endosulfan I	g/m ³	< 0.000010 ± 0.0000067	-	-
Endosulfan II	g/m ³	< 0.000010 ± 0.0000067	-	-
Endosulfan sulphate	g/m ³	< 0.000010 ± 0.0000067	-	-
Endrin	g/m ³	< 0.000005 ± 0.0000034	0.001	No
Endrin aldehyde	g/m ³	< 0.000005 ± 0.0000034	-	-
Endrin ketone	g/m ³	< 0.000010 ± 0.0000067	-	-
Heptachlor	g/m ³	< 0.000005 ± 0.0000034	-	-
Heptachlor epoxide	g/m ³	< 0.000005 ± 0.0000034	-	-
Hexachlorobenzene	g/m ³	< 0.00004 ± 0.000027	-	-
Methoxychlor	g/m ³	< 0.000005 ± 0.0000034	0.02	No
Polycyclic Aromatic Hydrocarbons Trace in Water, By Liq/Liq				
Acenaphthene	g/m ³	< 0.000005 ± 0.0000034	-	-
Acenaphthylene	g/m ³	< 0.000005 ± 0.0000034	-	-
Anthracene	g/m ³	< 0.000005 ± 0.0000034	-	-
Benzo[a]anthracene	g/m ³	< 0.000005 ± 0.0000034	-	-
Benzo[a]pyrene (BAP)	g/m ³	< 0.000005 ± 0.0000034	0.0007	No
Benzo[b]fluoranthene + Benzo[j]fluoranthene	g/m ³	< 0.000005 ± 0.0000034	-	-
Benzo[g,h,i]perylene	g/m ³	< 0.000005 ± 0.0000034	-	-
Benzo[k]fluoranthene	g/m ³	< 0.000005 ± 0.0000034	-	-
Chrysene	g/m ³	< 0.000005 ± 0.0000034	-	-
Dibenzo[a,h]anthracene	g/m ³	< 0.000005 ± 0.0000034	-	-
Fluoranthene	g/m ³	< 0.000005 ± 0.0000034	-	-
Fluorene	g/m ³	< 0.000005 ± 0.0000055	-	-
Indeno(1,2,3-c,d)pyrene	g/m ³	< 0.000005 ± 0.0000034	-	-
Naphthalene	g/m ³	< 0.00003 ± 0.000020	-	-
Phenanthrene	g/m ³	< 0.000005 ± 0.000013	-	-
Pyrene	g/m ³	< 0.000005 ± 0.0000057	-	-
BTEX in VOC Water by Headspace GC-MS				
Benzene	g/m ³	< 0.0003 ± 0.00032	0.01	No
Ethylbenzene	g/m ³	< 0.0005 ± 0.00034	0.3	No
Toluene	g/m ³	< 0.0003 ± 0.00060	0.8	No
m&p-Xylene	g/m ³	< 0.0005 ± 0.00034	-	-
o-Xylene	g/m ³	< 0.0003 ± 0.00031	-	-
Halogenated Aliphatics in VOC Water by Headspace GC-MS				
Bromomethane (Methyl Bromide)	g/m ³	< 0.0003 ± 0.00031	-	-
Carbon tetrachloride	g/m ³	< 0.0003 ± 0.00030	0.005	No
Chloroethane	g/m ³	< 0.0003 ± 0.00031	-	-
Chloromethane	g/m ³	< 0.0003 ± 0.00031	-	-
1,2-Dibromo-3-chloropropane	g/m ³	< 0.0003 ± 0.00026	0.001	No
1,2-Dibromoethane (ethylene dibromide, EDB)	g/m ³	< 0.0003 ± 0.00025	0.0004	No
Dibromomethane	g/m ³	< 0.0003 ± 0.00031	-	-
Dichlorodifluoromethane	g/m ³	< 0.0003 ± 0.00030	-	-
1,1-Dichloroethane	g/m ³	< 0.0003 ± 0.00031	-	-
1,2-Dichloroethane	g/m ³	< 0.0003 ± 0.00030	0.03	No
1,1-Dichloroethene	g/m ³	< 0.0003 ± 0.00032	-	-
cis-1,2-Dichloroethene	g/m ³	< 0.0003 ± 0.00031	-	-
trans-1,2-Dichloroethene	g/m ³	< 0.0003 ± 0.00030	-	-
Dichloromethane (methylene chloride)	g/m ³	< 0.010 ± 0.0067	0.02	No

Sample Type: Aqueous					
Sample Name:		WS79 - Wharawhara Bore - G01611 04-May-2021 12:05 pm		Maximum Acceptable Value	Outside Limit
Lab Number:		2603083.3			
Halogenated Aliphatics in VOC Water by Headspace GC-MS					
1,2-Dichloropropane	g/m ³	< 0.0003 ± 0.00031	0.05	No	
1,3-Dichloropropane	g/m ³	< 0.0003 ± 0.00031	-	-	
1,1-Dichloropropene	g/m ³	< 0.0003 ± 0.00031	-	-	
cis-1,3-Dichloropropene	g/m ³	< 0.0005 ± 0.00034	-	-	
trans-1,3-Dichloropropene	g/m ³	< 0.0005 ± 0.00034	-	-	
Hexachlorobutadiene	g/m ³	< 0.0003 ± 0.00030	0.0007	No	
1,1,1,2-Tetrachloroethane	g/m ³	< 0.0003 ± 0.00031	-	-	
1,1,2,2-Tetrachloroethane	g/m ³	< 0.0003 ± 0.00031	-	-	
Tetrachloroethene (tetrachloroethylene)	g/m ³	< 0.0003 ± 0.00032	0.05	No	
1,1,1-Trichloroethane	g/m ³	< 0.0003 ± 0.00030	-	-	
1,1,2-Trichloroethane	g/m ³	< 0.0003 ± 0.00031	-	-	
Trichloroethene (trichloroethylene)	g/m ³	< 0.0003 ± 0.00031	0.02	No	
Trichlorofluoromethane	g/m ³	< 0.0003 ± 0.00032	-	-	
1,2,3-Trichloropropane	g/m ³	< 0.0003 ± 0.00031	-	-	
1,1,2-Trichlorotrifluoroethane (Freon 113)	g/m ³	< 0.0003 ± 0.00027	-	-	
Vinyl chloride	g/m ³	< 0.0003 ± 0.00030	0.0003	No	
Halogenated Aromatics in VOC Water by Headspace GC-MS					
Chlorobenzene (monochlorobenzene)	g/m ³	< 0.0003 ± 0.00031	-	-	
1,2-Dichlorobenzene	g/m ³	< 0.0003 ± 0.00031	1.5	No	
1,3-Dichlorobenzene	g/m ³	< 0.0003 ± 0.00031	-	-	
1,4-Dichlorobenzene	g/m ³	< 0.0003 ± 0.00031	0.4	No	
1,2,3-Trichlorobenzene	g/m ³	< 0.0003 ± 0.00029	-	-	
1,2,4-Trichlorobenzene	g/m ³	< 0.0003 ± 0.00029	-	-	
1,3,5-Trichlorobenzene	g/m ³	< 0.0003 ± 0.00031	-	-	
Bromobenzene	g/m ³	< 0.0003 ± 0.00031	-	-	
2-Chlorotoluene	g/m ³	< 0.0003 ± 0.00031	-	-	
4-Chlorotoluene	g/m ³	< 0.0003 ± 0.00031	-	-	
Monoaromatic Hydrocarbons in VOC Water by Headspace GC-MS					
n-Butylbenzene	g/m ³	< 0.0005 ± 0.00034	-	-	
tert-Butylbenzene	g/m ³	< 0.0003 ± 0.00031	-	-	
4-Isopropyltoluene (p-Cymene)	g/m ³	< 0.0005 ± 0.00034	-	-	
Isopropylbenzene (Cumene)	g/m ³	< 0.0003 ± 0.00031	-	-	
n-Propylbenzene	g/m ³	< 0.0005 ± 0.00034	-	-	
sec-Butylbenzene	g/m ³	< 0.0003 ± 0.00031	-	-	
Styrene	g/m ³	< 0.0005 ± 0.00034	0.03	No	
1,2,4-Trimethylbenzene	g/m ³	< 0.0003 ± 0.00031	-	-	
1,3,5-Trimethylbenzene	g/m ³	< 0.0003 ± 0.00031	-	-	
Ketones in VOC Water by Headspace GC-MS					
Acetone	g/m ³	< 0.05 ± 0.034	-	-	
2-Butanone (MEK)	g/m ³	< 0.05 ± 0.016	-	-	
Methyl tert-butylether (MTBE)	g/m ³	< 0.0003 ± 0.0031	-	-	
4-Methylpentan-2-one (MIBK)	g/m ³	< 0.010 ± 0.0045	-	-	
Trihalomethanes in VOC Water by Headspace GC-MS					
Bromodichloromethane	g/m ³	< 0.0003 ± 0.00030	0.06	No	
Bromoform (tribromomethane)	g/m ³	< 0.0005 ± 0.00034	0.1	No	
Chloroform (Trichloromethane)	g/m ³	< 0.0003 ± 0.00030	0.4	No	
Dibromochloromethane	g/m ³	< 0.0003 ± 0.00030	0.15	No	
Other VOC in Water by Headspace GC-MS					
Carbon disulphide	g/m ³	< 0.0005 ± 0.0031	-	-	
Naphthalene	g/m ³	< 0.0005 ± 0.00034	-	-	
Sample Name:		WSZ10 - Wharawhara Bore - G01612 04-May-2021 11:50 am		Maximum Acceptable Value	Outside Limit
Lab Number:		2603083.4			
Individual Tests					

Sample Type: Aqueous				
Sample Name:	WSZ10 - Wharawhara Bore - G01612 04-May-2021 11:50 am		Maximum Acceptable Value	Outside Limit
Lab Number:	2603083.4			
Individual Tests				
Turbidity	NTU	0.130 ± 0.036	-	-
Total Alkalinity	g/m ³ as CaCO ₃	34.7 ± 1.6	-	-
Carbonate	g/m ³ at 25°C	< 1.0 ± 0.011	-	-
Bicarbonate	g/m ³ at 25°C	42.2 ± 2.3	-	-
Free Carbon Dioxide	g/m ³ at 25°C	3.6 ± 1.7	-	-
Total Hardness	g/m ³ as CaCO ₃	26.6 ± 1.2	-	-
Total Suspended Solids	g/m ³	< 3 ± 2.1	-	-
Total Dissolved Solids (TDS)	g/m ³	104 ± 15	-	-
Dissolved Aluminium	g/m ³	< 0.003 ± 0.0021	-	-
Dissolved Antimony	g/m ³	< 0.0002 ± 0.00014	-	-
Dissolved Arsenic	g/m ³	< 0.0010 ± 0.00067	-	-
Dissolved Barium	g/m ³	< 0.005 ± 0.00025	-	-
Total Boron	g/m ³	0.0106 ± 0.0038	1.4	No
Dissolved Cadmium	g/m ³	< 0.00005 ± 0.000034	-	-
Total Calcium	g/m ³	6.06 ± 0.25	-	-
Dissolved Chromium	g/m ³	< 0.0005 ± 0.00034	-	-
Total Copper	g/m ³	0.00180 ± 0.00040	2	No
Total Iron	g/m ³	< 0.021 ± 0.014	-	-
Dissolved Lead	g/m ³	< 0.00010 ± 0.000067	-	-
Total Magnesium	g/m ³	2.78 ± 0.23	-	-
Total Manganese	g/m ³	< 0.00053 ± 0.00036	0.4	No
Dissolved Mercury	g/m ³	< 0.00008 ± 0.000054	-	-
Dissolved Molybdenum	g/m ³	< 0.0002 ± 0.00014	-	-
Dissolved Nickel	g/m ³	< 0.0005 ± 0.00034	-	-
Dissolved Selenium	g/m ³	< 0.0010 ± 0.00067	-	-
Dissolved Silver	g/m ³	< 0.00010 ± 0.000067	-	-
Total Sodium	g/m ³	7.96 ± 0.48	-	-
Dissolved Tin	g/m ³	< 0.0005 ± 0.00034	-	-
Total Zinc	g/m ³	0.0112 ± 0.0012	-	-
Bromate	g/m ³	< 0.005 ± 0.0034	0.01	No
Chloride	g/m ³	8.09 ± 0.60	-	-
Fluoride	g/m ³	< 0.05 ± 0.041	1.5	No
Total Ammoniacal-N	g/m ³	< 0.010 ± 0.0067	-	-
Nitrite-N	g/m ³	< 0.002 ± 0.0014	0.06 0.91 (short term)	No
Nitrate-N	g/m ³	0.0683 ± 0.0084	11.3	No
Nitrate-N + Nitrite-N	g/m ³	0.0683 ± 0.0083	-	-
Reactive Silica	g/m ³ as SiO ₂	52.0 ± 1.1	-	-
Sulphate	g/m ³	1.48 ± 0.36	-	-
Non-Purgeable Organic Carbon (NPOC)	g/m ³	< 0.3 ± 0.20	-	-
Absorbance at 254 nm	AU cm ⁻¹	0.0092 ± 0.0023	-	-
Transmittance at 254 nm*	%T, 1 cm cell	97.9	-	-
Absorbance at 270 nm	AU cm ⁻¹	0.0084 ± 0.0023	-	-
Transmittance at 270 nm*	%T, 1 cm cell	98.1	-	-
Total Coliforms	cfu / 100mL	< 1 #1	-	-
Enterococci	cfu / 100mL	< 1 #1	-	-
Faecal Coliforms and E. coli profile				
Faecal Coliforms	cfu / 100mL	< 1 #1	-	-
Escherichia coli	cfu / 100mL	< 1 #1	< 1	No
Hazen Colour Profile				
Apparent Hazen Colour	Hazen units	< 10 ± 20	-	-
OrganoNitrogen & Phosphorus pesticides, trace, liq/liq GCMS				
Acetochlor	g/m ³	< 0.00004 ± 0.00042	-	-
Alachlor	g/m ³	< 0.00004 ± 0.00018	0.02	No
Atrazine	g/m ³	< 0.00004 ± 0.00024	0.002	No

Sample Type: Aqueous				
Sample Name:	WSZ10 - Wharawhara Bore - G01612 04-May-2021 11:50 am		Maximum Acceptable Value	Outside Limit
Lab Number:	2603083.4			
OrganoNitrogen & Phosphorus pesticides, trace, liq/liq GCMS				
Atrazine-desethyl	g/m ³	< 0.00004 ± 0.00041	-	-
Atrazine-desisopropyl	g/m ³	< 0.00008 ± 0.00018	-	-
Azaconazole	g/m ³	< 0.00002 ± 0.0000071	-	-
Azinphos-methyl	g/m ³	< 0.00008 ± 0.000036	0.004	No
Benalaxyl	g/m ³	< 0.00002 ± 0.0000094	-	-
Bitertanol	g/m ³	< 0.00008 ± 0.000048	-	-
Bromacil	g/m ³	< 0.00004 ± 0.000025	0.4	No
Bromopropylate	g/m ³	< 0.00004 ± 0.000022	-	-
Butachlor	g/m ³	< 0.00004 ± 0.000021	-	-
Captan	g/m ³	< 0.00008 ± 0.000060	-	-
Carbaryl	g/m ³	< 0.00004 ± 0.000021	-	-
Carbofenothion	g/m ³	< 0.00004 ± 0.000022	-	-
Carbofuran	g/m ³	< 0.00004 ± 0.000022	0.008	No
Chlorfluazuron	g/m ³	< 0.00004 ± 0.000032	-	-
Chlorothalonil	g/m ³	< 0.00004 ± 0.000022	-	-
Chlorpyrifos	g/m ³	< 0.00004 ± 0.000022	0.04	No
Chlorpyrifos-methyl	g/m ³	< 0.00004 ± 0.000022	-	-
Chlortoluron	g/m ³	< 0.00008 ± 0.000062	0.04	No
Cyanazine	g/m ³	< 0.00004 ± 0.000021	0.0007	No
Cyfluthrin	g/m ³	< 0.00004 ± 0.000027	-	-
Cyhalothrin	g/m ³	< 0.00004 ± 0.000022	-	-
Cypermethrin	g/m ³	< 0.00008 ± 0.000043	-	-
Deltamethrin (including Tralomethrin)	g/m ³	< 0.00006 ± 0.000027	-	-
Diazinon	g/m ³	< 0.00002 ± 0.0000083	-	-
Dichlofluanid	g/m ³	< 0.00004 ± 0.00018	-	-
Dichloran	g/m ³	< 0.0002 ± 0.000089	-	-
Dichlorvos	g/m ³	< 0.00008 ± 0.00018	-	-
Difenoconazole	g/m ³	< 0.00008 ± 0.000043	-	-
Dimethoate	g/m ³	< 0.00008 ± 0.000057	0.008	No
Diphenylamine	g/m ³	< 0.00008 ± 0.00018	-	-
Diuron	g/m ³	< 0.00004 ± 0.000023	0.02	No
Fenpropimorph	g/m ³	< 0.00004 ± 0.000022	-	-
Fluazifop-butyl	g/m ³	< 0.00004 ± 0.000022	-	-
Fluometuron	g/m ³	< 0.00004 ± 0.000026	-	-
Flusilazole	g/m ³	< 0.00004 ± 0.000028	-	-
Fluvalinate	g/m ³	< 0.00004 ± 0.000011	-	-
Furalaxyl	g/m ³	< 0.00002 ± 0.0000079	-	-
Haloxifop-methyl	g/m ³	< 0.00004 ± 0.000027	-	-
Hexaconazole	g/m ³	< 0.00004 ± 0.000060	-	-
Hexazinone	g/m ³	< 0.00002 ± 0.000017	0.4	No
IPBC (3-Iodo-2-propynyl-n-butylcarbamate)	g/m ³	< 0.0002 ± 0.00011	-	-
Kresoxim-methyl	g/m ³	< 0.00002 ± 0.000019	-	-
Linuron	g/m ³	< 0.00005 ± 0.000021	-	-
Malathion	g/m ³	< 0.00004 ± 0.000022	-	-
Metalaxyl	g/m ³	< 0.00004 ± 0.000023	0.1	No
Metolachlor	g/m ³	< 0.00004 ± 0.000021	0.01	No
Metribuzin	g/m ³	< 0.00004 ± 0.000027	0.07	No
Molinate	g/m ³	< 0.00008 ± 0.000030	0.007	No
Myclobutanil	g/m ³	< 0.00004 ± 0.000033	-	-
Naled	g/m ³	< 0.0002 ± 0.000056	-	-
Norflurazon	g/m ³	< 0.00008 ± 0.000028	-	-
Oxadiazon	g/m ³	< 0.00004 ± 0.000022	0.2	No
Oxyfluorfen	g/m ³	< 0.00002 ± 0.000019	-	-
Paclobutrazol	g/m ³	< 0.00004 ± 0.000023	-	-

Sample Type: Aqueous				
Sample Name:	WSZ10 - Wharawhara Bore - G01612 04-May-2021 11:50 am		Maximum Acceptable Value	Outside Limit
Lab Number:	2603083.4			
OrganoNitrogen & Phosphorus pesticides, trace, liq/liq GCMS				
Parathion-ethyl	g/m ³	< 0.00004 ± 0.000022	-	-
Parathion-methyl	g/m ³	< 0.00004 ± 0.000022	-	-
Pendimethalin	g/m ³	< 0.00004 ± 0.000051	0.02	No
Permethrin	g/m ³	< 0.00002 ± 0.000020	-	-
Pirimicarb	g/m ³	< 0.00004 ± 0.000015	-	-
Pirimiphos-methyl	g/m ³	< 0.00004 ± 0.000024	0.1	No
Prochloraz	g/m ³	< 0.0002 ± 0.000059	-	-
Procymidone	g/m ³	< 0.00004 ± 0.000021	0.7	No
Prometryn	g/m ³	< 0.00002 ± 0.000020	-	-
Propachlor	g/m ³	< 0.00004 ± 0.000024	-	-
Propanil	g/m ³	< 0.0002 ± 0.000056	-	-
Propazine	g/m ³	< 0.00002 ± 0.000020	0.07	No
Propiconazole	g/m ³	< 0.00004 ± 0.000033	-	-
Pyriproxyfen	g/m ³	< 0.00004 ± 0.000033	0.4	No
Quizalofop-ethyl	g/m ³	< 0.00004 ± 0.000022	-	-
Simazine	g/m ³	< 0.00004 ± 0.000013	0.002	No
Simetryn	g/m ³	< 0.00004 ± 0.000022	-	-
Sulfentrazone	g/m ³	< 0.0002 ± 0.000056	-	-
TCMTB [2-(thiocyanomethylthio)benzothiazole, Busan]	g/m ³	< 0.00008 ± 0.000032	-	-
Tebuconazole	g/m ³	< 0.00004 ± 0.000059	-	-
Terbacil	g/m ³	< 0.00004 ± 0.000032	0.04	No
Terbufos	g/m ³	< 0.00004 ± 0.000011	-	-
Terbumeton	g/m ³	< 0.00004 ± 0.000021	-	-
Terbutylazine	g/m ³	< 0.00002 ± 0.0000079	0.008	No
Terbutylazine-desethyl	g/m ³	< 0.00004 ± 0.000038	-	-
Terbutryn	g/m ³	< 0.00004 ± 0.000023	-	-
Thiabendazole	g/m ³	< 0.0002 ± 0.000063	0.4	No
Thiobencarb	g/m ³	< 0.00004 ± 0.000022	-	-
Tolyfluanid	g/m ³	< 0.00002 ± 0.000019	-	-
Triazophos	g/m ³	< 0.00004 ± 0.000032	-	-
Trifluralin	g/m ³	< 0.00004 ± 0.000027	0.03	No
Vinclozolin	g/m ³	< 0.00004 ± 0.000048	-	-
Hydrogen sulphide trace level profile*				
pH	pH Units	7.3 ± 0.2	-	-
Electrical Conductivity (EC)	mS/m	9.7 ± 0.3	-	-
Sample Temperature*	°C	20.0	-	-
Un-ionised hydrogen sulphide	g/m ³	< 0.002	-	-
Total Sulphide	g/m ³	< 0.002 ± 0.0014	-	-
Acid Herbicides Screen in Water by LCMSMS				
Acifluorfen	g/m ³	< 0.0004 ± 0.00021	-	-
Bentazone	g/m ³	< 0.0004 ± 0.00021	-	-
Bromoxynil	g/m ³	< 0.0004 ± 0.00021	-	-
Clopyralid	g/m ³	< 0.0004 ± 0.00021	-	-
2,4-Dichlorophenoxyacetic acid (24D)	g/m ³	< 0.0004 ± 0.00021	0.04	No
2,4-Dichlorophenoxybutyric acid (24DB)	g/m ³	< 0.0004 ± 0.00021	0.1	No
Dicamba	g/m ³	< 0.0004 ± 0.00021	-	-
Dichlorprop	g/m ³	< 0.0004 ± 0.00021	0.1	No
Fluazifop	g/m ³	< 0.0004 ± 0.00021	-	-
Fluroxypyr	g/m ³	< 0.0004 ± 0.00021	-	-
Haloxypop	g/m ³	< 0.0004 ± 0.00021	-	-
2-methyl-4-chlorophenoxyacetic acid (MCPA)	g/m ³	< 0.0004 ± 0.00021	0.002	No
2-methyl-4-chlorophenoxybutanoic acid (MCPB)	g/m ³	< 0.0004 ± 0.00021	-	-
Mecoprop	g/m ³	< 0.0004 ± 0.00021	0.01	No

Sample Type: Aqueous					
Sample Name:		WSZ10 - Wharawhara Bore - G01612 04-May-2021 11:50 am		Maximum Acceptable Value	Outside Limit
Lab Number:		2603083.4			
Acid Herbicides Screen in Water by LCMSMS					
Oryzalin	g/m ³	< 0.0006 ± 0.00023	0.4	No	
2,3,4,6-Tetrachlorophenol (TCP)	g/m ³	< 0.0004 ± 0.00021	-	-	
2,4,5-trichlorophenoxypropionic acid (245TP,Fenoprop, Silvex)	g/m ³	< 0.0004 ± 0.00021	0.01	No	
2,4,5-Trichlorophenoxyacetic acid (245T)	g/m ³	< 0.0004 ± 0.00021	0.01	No	
Pentachlorophenol (PCP)	g/m ³	< 0.0004 ± 0.00021	0.009	No	
Picloram	g/m ³	< 0.0004 ± 0.00021	0.2	No	
Quizalofop	g/m ³	< 0.0004 ± 0.00021	-	-	
Triclopyr	g/m ³	< 0.0004 ± 0.00021	0.1	No	
Multiresidue Extra Pesticides Trace in Water samples by Liq/liq					
Bendiocarb	g/m ³	< 0.00004 ± 0.000022	-	-	
Benodanil	g/m ³	< 0.00008 ± 0.000039	-	-	
Bifenthrin	g/m ³	< 0.00002 ± 0.0000079	-	-	
Bromophos-ethyl	g/m ³	< 0.00004 ± 0.000022	-	-	
Bupirimate	g/m ³	< 0.00004 ± 0.000021	-	-	
Buprofezin	g/m ³	< 0.00004 ± 0.000021	-	-	
Captafol	g/m ³	< 0.0002 ± 0.00014	-	-	
Carbofenthion	g/m ³	< 0.00004 ± 0.000022	-	-	
Carboxin	g/m ³	< 0.00004 ± 0.000024	-	-	
Chlorfenvinphos	g/m ³	< 0.00004 ± 0.000022	-	-	
Chlorpropham	g/m ³	< 0.00008 ± 0.000034	-	-	
Chlozolinate	g/m ³	< 0.00004 ± 0.000022	-	-	
Coumaphos	g/m ³	< 0.00008 ± 0.000038	-	-	
Cyproconazole	g/m ³	< 0.00004 ± 0.000022	-	-	
Cyprodinil	g/m ³	< 0.00004 ± 0.000027	-	-	
Demeton-S-methyl	g/m ³	< 0.00008 ± 0.00018	-	-	
Dichlobenil	g/m ³	< 0.00004 ± 0.000022	-	-	
Dichlofenthion	g/m ³	< 0.00004 ± 0.000022	-	-	
Dicofol	g/m ³	< 0.0002 ± 0.00014	-	-	
Dicrotophos	g/m ³	< 0.00004 ± 0.000022	-	-	
Dinocap	g/m ³	< 0.0003 ± 0.00012	-	-	
Disulfoton	g/m ³	< 0.00004 ± 0.000023	-	-	
EPN	g/m ³	< 0.00004 ± 0.000026	-	-	
Esfenvalerate	g/m ³	< 0.00004 ± 0.000022	-	-	
Ethion	g/m ³	< 0.00004 ± 0.000021	-	-	
Etrimfos	g/m ³	< 0.00004 ± 0.000022	-	-	
Famphur	g/m ³	< 0.00004 ± 0.000021	-	-	
Fenamiphos	g/m ³	< 0.00004 ± 0.000022	-	-	
Fenarimol	g/m ³	< 0.00004 ± 0.000023	-	-	
Fenitrothion	g/m ³	< 0.00004 ± 0.000022	-	-	
Fenpropathrin	g/m ³	< 0.00004 ± 0.000022	-	-	
Fensulfothion	g/m ³	< 0.00004 ± 0.000026	-	-	
Fenthion	g/m ³	< 0.00004 ± 0.000024	-	-	
Fenvalerate	g/m ³	< 0.00004 ± 0.000021	-	-	
Folpet	g/m ³	< 0.00008 ± 0.000027	-	-	
Hexythiazox	g/m ³	< 0.0002 ± 0.000071	-	-	
Imazalil	g/m ³	< 0.0002 ± 0.000059	-	-	
Indoxacarb	g/m ³	< 0.00004 ± 0.000022	-	-	
Iodofenphos	g/m ³	< 0.00004 ± 0.000015	-	-	
Isazophos	g/m ³	< 0.00004 ± 0.000025	-	-	
Isofenphos	g/m ³	< 0.00002 ± 0.000018	-	-	
Leptophos	g/m ³	< 0.00004 ± 0.000023	-	-	
Methacrifos	g/m ³	< 0.00004 ± 0.000022	-	-	
Methidathion	g/m ³	< 0.00004 ± 0.000022	-	-	
Methiocarb	g/m ³	< 0.00004 ± 0.000033	-	-	

Sample Type: Aqueous				
Sample Name:	WSZ10 - Wharawhara Bore - G01612 04-May-2021 11:50 am		Maximum Acceptable Value	Outside Limit
Lab Number:	2603083.4			
Multiresidue Extra Pesticides Trace in Water samples by Liq/liq				
Mevinphos	g/m ³	< 0.00008 ± 0.000040	-	-
Nitrofen	g/m ³	< 0.00008 ± 0.000034	-	-
Nitrothal-Isopropyl	g/m ³	< 0.00004 ± 0.000023	-	-
Oxychlordan	g/m ³	< 0.00002 ± 0.000033	-	-
Penconazole	g/m ³	< 0.00004 ± 0.000022	-	-
Phorate	g/m ³	< 0.00008 ± 0.000028	-	-
Phosmet	g/m ³	< 0.00004 ± 0.000021	-	-
Phosphamidon	g/m ³	< 0.00004 ± 0.000057	-	-
Propetamphos	g/m ³	< 0.00006 ± 0.000027	-	-
Propham	g/m ³	< 0.00004 ± 0.000023	-	-
Prothiofos	g/m ³	< 0.00004 ± 0.000022	-	-
Pyrazophos	g/m ³	< 0.00004 ± 0.000022	-	-
Pyrifenox	g/m ³	< 0.00004 ± 0.000052	-	-
Pyrimethanil	g/m ³	< 0.00004 ± 0.000021	-	-
Quintozene	g/m ³	< 0.00008 ± 0.000026	-	-
Sulfotep	g/m ³	< 0.00004 ± 0.000022	-	-
Tebufenpyrad	g/m ³	< 0.00002 ± 0.000019	-	-
Tetrachlorvinphos	g/m ³	< 0.00004 ± 0.000021	-	-
Thiometon	g/m ³	< 0.00008 ± 0.000032	-	-
Triadimefon	g/m ³	< 0.00004 ± 0.000021	-	-
Organochlorine Pesticides Trace in water, By Liq/Liq				
Aldrin	g/m ³	< 0.000005 ± 0.0000034	-	-
alpha-BHC	g/m ³	< 0.000010 ± 0.0000067	-	-
beta-BHC	g/m ³	< 0.000010 ± 0.0000067	-	-
delta-BHC	g/m ³	< 0.000010 ± 0.0000067	-	-
gamma-BHC (Lindane)	g/m ³	< 0.000010 ± 0.0000067	0.002	No
cis-Chlordane	g/m ³	< 0.000005 ± 0.0000034	-	-
trans-Chlordane	g/m ³	< 0.000005 ± 0.0000034	-	-
2,4'-DDD	g/m ³	< 0.000010 ± 0.0000067	-	-
4,4'-DDD	g/m ³	< 0.000010 ± 0.0000067	-	-
2,4'-DDE	g/m ³	< 0.000010 ± 0.0000067	-	-
4,4'-DDE	g/m ³	< 0.000010 ± 0.0000067	-	-
2,4'-DDT	g/m ³	< 0.000010 ± 0.0000067	-	-
4,4'-DDT	g/m ³	< 0.000010 ± 0.0000067	-	-
Total DDT Isomers	g/m ³	< 0.00006	0.001	No
Dieldrin	g/m ³	< 0.000005 ± 0.0000034	-	-
Endosulfan I	g/m ³	< 0.000010 ± 0.0000067	-	-
Endosulfan II	g/m ³	< 0.000010 ± 0.0000067	-	-
Endosulfan sulphate	g/m ³	< 0.000010 ± 0.0000067	-	-
Endrin	g/m ³	< 0.000005 ± 0.0000034	0.001	No
Endrin aldehyde	g/m ³	< 0.000005 ± 0.0000034	-	-
Endrin ketone	g/m ³	< 0.000010 ± 0.0000067	-	-
Heptachlor	g/m ³	< 0.000005 ± 0.0000034	-	-
Heptachlor epoxide	g/m ³	< 0.000005 ± 0.0000034	-	-
Hexachlorobenzene	g/m ³	< 0.00004 ± 0.000027	-	-
Methoxychlor	g/m ³	< 0.000005 ± 0.0000034	0.02	No
Polycyclic Aromatic Hydrocarbons Trace in Water, By Liq/Liq				
Acenaphthene	g/m ³	< 0.000005 ± 0.0000034	-	-
Acenaphthylene	g/m ³	< 0.000005 ± 0.0000034	-	-
Anthracene	g/m ³	< 0.000005 ± 0.0000034	-	-
Benzo[a]anthracene	g/m ³	< 0.000005 ± 0.0000034	-	-
Benzo[a]pyrene (BAP)	g/m ³	< 0.000005 ± 0.0000034	0.0007	No
Benzo[b]fluoranthene + Benzo[j]fluoranthene	g/m ³	< 0.000005 ± 0.0000034	-	-
Benzo[g,h,i]perylene	g/m ³	< 0.000005 ± 0.0000034	-	-

Sample Type: Aqueous				
Sample Name:	WSZ10 - Wharawhara Bore - G01612 04-May-2021 11:50 am		Maximum Acceptable Value	Outside Limit
Lab Number:	2603083.4			
Polycyclic Aromatic Hydrocarbons Trace in Water, By Liq/Liq				
Benzo[k]fluoranthene	g/m ³	< 0.000005 ± 0.0000034	-	-
Chrysene	g/m ³	< 0.000005 ± 0.0000034	-	-
Dibenzo[a,h]anthracene	g/m ³	< 0.000005 ± 0.0000034	-	-
Fluoranthene	g/m ³	< 0.000005 ± 0.0000034	-	-
Fluorene	g/m ³	< 0.000005 ± 0.0000055	-	-
Indeno(1,2,3-c,d)pyrene	g/m ³	< 0.000005 ± 0.0000034	-	-
Naphthalene	g/m ³	0.000075 ± 0.000050	-	-
Phenanthrene	g/m ³	< 0.000005 ± 0.000013	-	-
Pyrene	g/m ³	< 0.000005 ± 0.0000057	-	-
BTEX in VOC Water by Headspace GC-MS				
Benzene	g/m ³	< 0.0003 ± 0.00032	0.01	No
Ethylbenzene	g/m ³	< 0.0005 ± 0.00034	0.3	No
Toluene	g/m ³	< 0.0003 ± 0.00060	0.8	No
m&p-Xylene	g/m ³	< 0.0005 ± 0.00034	-	-
o-Xylene	g/m ³	< 0.0003 ± 0.00031	-	-
Halogenated Aliphatics in VOC Water by Headspace GC-MS				
Bromomethane (Methyl Bromide)	g/m ³	< 0.0003 ± 0.00031	-	-
Carbon tetrachloride	g/m ³	< 0.0003 ± 0.00030	0.005	No
Chloroethane	g/m ³	< 0.0003 ± 0.00031	-	-
Chloromethane	g/m ³	< 0.0003 ± 0.00031	-	-
1,2-Dibromo-3-chloropropane	g/m ³	< 0.0003 ± 0.00026	0.001	No
1,2-Dibromoethane (ethylene dibromide, EDB)	g/m ³	< 0.0003 ± 0.00025	0.0004	No
Dibromomethane	g/m ³	< 0.0003 ± 0.00031	-	-
Dichlorodifluoromethane	g/m ³	< 0.0003 ± 0.00030	-	-
1,1-Dichloroethane	g/m ³	< 0.0003 ± 0.00031	-	-
1,2-Dichloroethane	g/m ³	< 0.0003 ± 0.00030	0.03	No
1,1-Dichloroethene	g/m ³	< 0.0003 ± 0.00032	-	-
cis-1,2-Dichloroethene	g/m ³	< 0.0003 ± 0.00031	-	-
trans-1,2-Dichloroethene	g/m ³	< 0.0003 ± 0.00030	-	-
Dichloromethane (methylene chloride)	g/m ³	< 0.010 ± 0.0067	0.02	No
1,2-Dichloropropane	g/m ³	< 0.0003 ± 0.00031	0.05	No
1,3-Dichloropropane	g/m ³	< 0.0003 ± 0.00031	-	-
1,1-Dichloropropene	g/m ³	< 0.0003 ± 0.00031	-	-
cis-1,3-Dichloropropene	g/m ³	< 0.0005 ± 0.00034	-	-
trans-1,3-Dichloropropene	g/m ³	< 0.0005 ± 0.00034	-	-
Hexachlorobutadiene	g/m ³	< 0.0003 ± 0.00030	0.0007	No
1,1,1,2-Tetrachloroethane	g/m ³	< 0.0003 ± 0.00031	-	-
1,1,2,2-Tetrachloroethane	g/m ³	< 0.0003 ± 0.00031	-	-
Tetrachloroethene (tetrachloroethylene)	g/m ³	< 0.0003 ± 0.00032	0.05	No
1,1,1-Trichloroethane	g/m ³	< 0.0003 ± 0.00030	-	-
1,1,2-Trichloroethane	g/m ³	< 0.0003 ± 0.00031	-	-
Trichloroethene (trichloroethylene)	g/m ³	< 0.0003 ± 0.00031	0.02	No
Trichlorofluoromethane	g/m ³	< 0.0003 ± 0.00032	-	-
1,2,3-Trichloropropane	g/m ³	< 0.0003 ± 0.00031	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	g/m ³	< 0.0003 ± 0.00027	-	-
Vinyl chloride	g/m ³	< 0.0003 ± 0.00030	0.0003	No
Halogenated Aromatics in VOC Water by Headspace GC-MS				
Chlorobenzene (monochlorobenzene)	g/m ³	< 0.0003 ± 0.00031	-	-
1,2-Dichlorobenzene	g/m ³	< 0.0003 ± 0.00031	1.5	No
1,3-Dichlorobenzene	g/m ³	< 0.0003 ± 0.00031	-	-
1,4-Dichlorobenzene	g/m ³	< 0.0003 ± 0.00031	0.4	No
1,2,3-Trichlorobenzene	g/m ³	< 0.0003 ± 0.00029	-	-
1,2,4-Trichlorobenzene	g/m ³	< 0.0003 ± 0.00029	-	-
1,3,5-Trichlorobenzene	g/m ³	< 0.0003 ± 0.00031	-	-

Sample Type: Aqueous				
Sample Name:	WSZ10 - Wharawhara Bore - G01612 04-May-2021 11:50 am		Maximum Acceptable Value	Outside Limit
Lab Number:	2603083.4			
Halogenated Aromatics in VOC Water by Headspace GC-MS				
Bromobenzene	g/m ³	< 0.0003 ± 0.00031	-	-
2-Chlorotoluene	g/m ³	< 0.0003 ± 0.00031	-	-
4-Chlorotoluene	g/m ³	< 0.0003 ± 0.00031	-	-
Monoaromatic Hydrocarbons in VOC Water by Headspace GC-MS				
n-Butylbenzene	g/m ³	< 0.0005 ± 0.00034	-	-
tert-Butylbenzene	g/m ³	< 0.0003 ± 0.00031	-	-
4-Isopropyltoluene (p-Cymene)	g/m ³	< 0.0005 ± 0.00034	-	-
Isopropylbenzene (Cumene)	g/m ³	< 0.0003 ± 0.00031	-	-
n-Propylbenzene	g/m ³	< 0.0005 ± 0.00034	-	-
sec-Butylbenzene	g/m ³	< 0.0003 ± 0.00031	-	-
Styrene	g/m ³	< 0.0005 ± 0.00034	0.03	No
1,2,4-Trimethylbenzene	g/m ³	< 0.0003 ± 0.00031	-	-
1,3,5-Trimethylbenzene	g/m ³	< 0.0003 ± 0.00031	-	-
Ketones in VOC Water by Headspace GC-MS				
Acetone	g/m ³	< 0.05 ± 0.034	-	-
2-Butanone (MEK)	g/m ³	< 0.05 ± 0.016	-	-
Methyl tert-butylether (MTBE)	g/m ³	< 0.0003 ± 0.00031	-	-
4-Methylpentan-2-one (MIBK)	g/m ³	< 0.010 ± 0.0045	-	-
Trihalomethanes in VOC Water by Headspace GC-MS				
Bromodichloromethane	g/m ³	< 0.0003 ± 0.00030	0.06	No
Bromoform (tribromomethane)	g/m ³	< 0.0005 ± 0.00034	0.1	No
Chloroform (Trichloromethane)	g/m ³	< 0.0003 ± 0.00030	0.4	No
Dibromochloromethane	g/m ³	< 0.0003 ± 0.00030	0.15	No
Other VOC in Water by Headspace GC-MS				
Carbon disulphide	g/m ³	< 0.0005 ± 0.00031	-	-
Naphthalene	g/m ³	< 0.0005 ± 0.00034	-	-

Sample Name:	Waihi Beach Bore - G003050 04-May-2021 9:00 am		Maximum Acceptable Value	Outside Limit
Lab Number:	2603083.5			
Individual Tests				
Turbidity	NTU	0.120 ± 0.036	-	-
Total Alkalinity	g/m ³ as CaCO ₃	62.3 ± 2.6	-	-
Carbonate	g/m ³ at 25°C	< 1.0 ± 0.020	-	-
Bicarbonate	g/m ³ at 25°C	75.8 ± 3.9	-	-
Free Carbon Dioxide	g/m ³ at 25°C	6.3 ± 3.0	-	-
Total Hardness	g/m ³ as CaCO ₃	28.6 ± 1.4	-	-
Total Suspended Solids	g/m ³	< 3 ± 2.1	-	-
Total Dissolved Solids (TDS)	g/m ³	206 ± 26	-	-
Dissolved Aluminium	g/m ³	< 0.003 ± 0.0021	-	-
Dissolved Antimony	g/m ³	< 0.0002 ± 0.00014	-	-
Dissolved Arsenic	g/m ³	0.00224 ± 0.00068	-	-
Dissolved Barium	g/m ³	0.0510 ± 0.0024	-	-
Total Boron	g/m ³	0.0406 ± 0.0067	1.4	No
Dissolved Cadmium	g/m ³	< 0.00005 ± 0.000034	-	-
Total Calcium	g/m ³	5.11 ± 0.21	-	-
Dissolved Chromium	g/m ³	< 0.0005 ± 0.00034	-	-
Total Copper	g/m ³	0.00194 ± 0.00040	2	No
Total Iron	g/m ³	0.022 ± 0.015	-	-
Dissolved Lead	g/m ³	0.000202 ± 0.000068	-	-
Total Magnesium	g/m ³	3.84 ± 0.31	-	-
Total Manganese	g/m ³	< 0.00053 ± 0.00036	0.4	No
Dissolved Mercury	g/m ³	< 0.00008 ± 0.000054	-	-
Dissolved Molybdenum	g/m ³	0.00078 ± 0.00018	-	-
Dissolved Nickel	g/m ³	< 0.0005 ± 0.00034	-	-

Sample Type: Aqueous					
Sample Name:		Waihi Beach Bore - G003050 04-May-2021 9:00 am		Maximum Acceptable Value	Outside Limit
Lab Number:		2603083.5			
Individual Tests					
Dissolved Selenium	g/m ³	< 0.0010 ± 0.00067	-	-	
Dissolved Silver	g/m ³	< 0.00010 ± 0.000067	-	-	
Total Sodium	g/m ³	28.9 ± 1.8	-	-	
Dissolved Tin	g/m ³	< 0.0005 ± 0.00034	-	-	
Total Zinc	g/m ³	0.0107 ± 0.0012	-	-	
Bromate	g/m ³	< 0.005 ± 0.0034	0.01	No	
Chloride	g/m ³	20.6 ± 1.3	-	-	
Fluoride	g/m ³	0.113 ± 0.043	1.5	No	
Total Ammoniacal-N	g/m ³	< 0.010 ± 0.0067	-	-	
Nitrite-N	g/m ³	< 0.002 ± 0.0014	0.06 0.91 (short term)	No	
Nitrate-N	g/m ³	0.0777 ± 0.0096	11.3	No	
Nitrate-N + Nitrite-N	g/m ³	0.0777 ± 0.0095	-	-	
Reactive Silica	g/m ³ as SiO ₂	94.8 ± 1.9	-	-	
Sulphate	g/m ³	3.19 ± 0.40	-	-	
Non-Purgeable Organic Carbon (NPOC)	g/m ³	0.35 ± 0.21	-	-	
Absorbance at 254 nm	AU cm ⁻¹	0.0074 ± 0.0022	-	-	
Transmittance at 254 nm*	%T, 1 cm cell	98.3	-	-	
Absorbance at 270 nm	AU cm ⁻¹	0.0066 ± 0.0022	-	-	
Transmittance at 270 nm*	%T, 1 cm cell	98.5	-	-	
Total Coliforms	cfu / 100mL	< 1 #1	-	-	
Enterococci	cfu / 100mL	< 1 #1	-	-	
Faecal Coliforms and E. coli profile					
Faecal Coliforms	cfu / 100mL	< 1 #1	-	-	
Escherichia coli	cfu / 100mL	< 1 #1	< 1	No	
Hazen Colour Profile					
Apparent Hazen Colour	Hazen units	< 10 ± 20	-	-	
OrganoNitrogen & Phosphorus pesticides, trace, liq/liq GCMS					
Acetochlor	g/m ³	< 0.00004 ± 0.00042	-	-	
Alachlor	g/m ³	< 0.00004 ± 0.00018	0.02	No	
Atrazine	g/m ³	< 0.00004 ± 0.000024	0.002	No	
Atrazine-desethyl	g/m ³	< 0.00004 ± 0.00041	-	-	
Atrazine-desisopropyl	g/m ³	< 0.00008 ± 0.00018	-	-	
Azaconazole	g/m ³	< 0.00002 ± 0.0000071	-	-	
Azinphos-methyl	g/m ³	< 0.00008 ± 0.000036	0.004	No	
Benalaxyl	g/m ³	< 0.00002 ± 0.0000094	-	-	
Bitertanol	g/m ³	< 0.00008 ± 0.000048	-	-	
Bromacil	g/m ³	< 0.00004 ± 0.000025	0.4	No	
Bromopropylate	g/m ³	< 0.00004 ± 0.000022	-	-	
Butachlor	g/m ³	< 0.00004 ± 0.000021	-	-	
Captan	g/m ³	< 0.00008 ± 0.000060	-	-	
Carbaryl	g/m ³	< 0.00004 ± 0.000021	-	-	
Carbofenothion	g/m ³	< 0.00004 ± 0.000022	-	-	
Carbofuran	g/m ³	< 0.00004 ± 0.000022	0.008	No	
Chlorfluazuron	g/m ³	< 0.00004 ± 0.000032	-	-	
Chlorothalonil	g/m ³	< 0.00004 ± 0.000022	-	-	
Chlorpyrifos	g/m ³	< 0.00004 ± 0.000022	0.04	No	
Chlorpyrifos-methyl	g/m ³	< 0.00004 ± 0.000022	-	-	
Chlortoluron	g/m ³	< 0.00008 ± 0.000062	0.04	No	
Cyanazine	g/m ³	< 0.00004 ± 0.000021	0.0007	No	
Cyfluthrin	g/m ³	< 0.00004 ± 0.000027	-	-	
Cyhalothrin	g/m ³	< 0.00004 ± 0.000022	-	-	
Cypermethrin	g/m ³	< 0.00008 ± 0.000043	-	-	
Deltamethrin (including Tralomethrin)	g/m ³	< 0.00006 ± 0.000027	-	-	
Diazinon	g/m ³	< 0.00002 ± 0.0000083	-	-	

Sample Type: Aqueous				
Sample Name:	Waihi Beach Bore - G003050 04-May-2021 9:00 am		Maximum Acceptable Value	Outside Limit
Lab Number:	2603083.5			
OrganoNitrogen & Phosphorus pesticides, trace, liq/liq GCMS				
Dichlofluanid	g/m ³	< 0.00004 ± 0.00018	-	-
Dichloran	g/m ³	< 0.0002 ± 0.000089	-	-
Dichlorvos	g/m ³	< 0.00008 ± 0.00018	-	-
Difenoconazole	g/m ³	< 0.00008 ± 0.000043	-	-
Dimethoate	g/m ³	< 0.00008 ± 0.000057	0.008	No
Diphenylamine	g/m ³	< 0.00008 ± 0.00018	-	-
Diuron	g/m ³	< 0.00004 ± 0.000023	0.02	No
Fenpropimorph	g/m ³	< 0.00004 ± 0.000022	-	-
Fluazifop-butyl	g/m ³	< 0.00004 ± 0.000022	-	-
Fluometuron	g/m ³	< 0.00004 ± 0.000026	-	-
Flusilazole	g/m ³	< 0.00004 ± 0.000028	-	-
Fluvalinate	g/m ³	< 0.00004 ± 0.000011	-	-
Furalaxyl	g/m ³	< 0.00002 ± 0.000079	-	-
Haloxyfop-methyl	g/m ³	< 0.00004 ± 0.000027	-	-
Hexaconazole	g/m ³	< 0.00004 ± 0.000060	-	-
Hexazinone	g/m ³	< 0.00002 ± 0.000017	0.4	No
IPBC (3-Iodo-2-propynyl-n-butylcarbamate)	g/m ³	< 0.0002 ± 0.00011	-	-
Kresoxim-methyl	g/m ³	< 0.00002 ± 0.000019	-	-
Linuron	g/m ³	< 0.00005 ± 0.000021	-	-
Malathion	g/m ³	< 0.00004 ± 0.000022	-	-
Metalaxyl	g/m ³	< 0.00004 ± 0.000023	0.1	No
Metolachlor	g/m ³	< 0.00004 ± 0.000021	0.01	No
Metribuzin	g/m ³	< 0.00004 ± 0.000027	0.07	No
Molinate	g/m ³	< 0.00008 ± 0.000030	0.007	No
Myclobutanil	g/m ³	< 0.00004 ± 0.000033	-	-
Naled	g/m ³	< 0.0002 ± 0.000056	-	-
Norflurazon	g/m ³	< 0.00008 ± 0.000028	-	-
Oxadiazon	g/m ³	< 0.00004 ± 0.000022	0.2	No
Oxyfluorfen	g/m ³	< 0.00002 ± 0.000019	-	-
Paclobutrazol	g/m ³	< 0.00004 ± 0.000023	-	-
Parathion-ethyl	g/m ³	< 0.00004 ± 0.000022	-	-
Parathion-methyl	g/m ³	< 0.00004 ± 0.000022	-	-
Pendimethalin	g/m ³	< 0.00004 ± 0.000051	0.02	No
Permethrin	g/m ³	< 0.00002 ± 0.000020	-	-
Pirimicarb	g/m ³	< 0.00004 ± 0.000015	-	-
Pirimiphos-methyl	g/m ³	< 0.00004 ± 0.000024	0.1	No
Prochloraz	g/m ³	< 0.0002 ± 0.000059	-	-
Procymidone	g/m ³	< 0.00004 ± 0.000021	0.7	No
Prometryn	g/m ³	< 0.00002 ± 0.000020	-	-
Propachlor	g/m ³	< 0.00004 ± 0.000024	-	-
Propanil	g/m ³	< 0.0002 ± 0.000056	-	-
Propazine	g/m ³	< 0.00002 ± 0.000020	0.07	No
Propiconazole	g/m ³	< 0.00004 ± 0.000033	-	-
Pyriproxyfen	g/m ³	< 0.00004 ± 0.000033	0.4	No
Quizalofop-ethyl	g/m ³	< 0.00004 ± 0.000022	-	-
Simazine	g/m ³	< 0.00004 ± 0.000013	0.002	No
Simetryn	g/m ³	< 0.00004 ± 0.000022	-	-
Sulfentrazone	g/m ³	< 0.0002 ± 0.000056	-	-
TCMTB [2-(thiocyanomethylthio)benzothiazole, Busan]	g/m ³	< 0.00008 ± 0.000032	-	-
Tebuconazole	g/m ³	< 0.00004 ± 0.000059	-	-
Terbacil	g/m ³	< 0.00004 ± 0.000032	0.04	No
Terbufos	g/m ³	< 0.00004 ± 0.000011	-	-
Terbumeton	g/m ³	< 0.00004 ± 0.000021	-	-
Terbuthylazine	g/m ³	< 0.00002 ± 0.000079	0.008	No

Sample Type: Aqueous				
Sample Name:	Waihi Beach Bore - G003050 04-May-2021 9:00 am		Maximum Acceptable Value	Outside Limit
Lab Number:	2603083.5			
OrganoNitrogen & Phosphorus pesticides, trace, liq/liq GCMS				
Terbutylazine-desethyl	g/m ³	< 0.00004 ± 0.000038	-	-
Terbutryn	g/m ³	< 0.00004 ± 0.000023	-	-
Thiabendazole	g/m ³	< 0.0002 ± 0.000063	0.4	No
Thiobencarb	g/m ³	< 0.00004 ± 0.000022	-	-
Tolyfluanid	g/m ³	< 0.00002 ± 0.000019	-	-
Triazophos	g/m ³	< 0.00004 ± 0.000032	-	-
Trifluralin	g/m ³	< 0.00004 ± 0.000027	0.03	No
Vinclozolin	g/m ³	< 0.00004 ± 0.000048	-	-
Hydrogen sulphide trace level profile*				
pH	pH Units	7.3 ± 0.2	-	-
Electrical Conductivity (EC)	mS/m	19.9 ± 0.5	-	-
Sample Temperature*	°C	20.0	-	-
Un-ionised hydrogen sulphide	g/m ³	< 0.002	-	-
Total Sulphide	g/m ³	< 0.002 ± 0.0014	-	-
Acid Herbicides Screen in Water by LCMSMS				
Acifluorfen	g/m ³	< 0.0004 ± 0.00021	-	-
Bentazone	g/m ³	< 0.0004 ± 0.00021	-	-
Bromoxynil	g/m ³	< 0.0004 ± 0.00021	-	-
Clopyralid	g/m ³	< 0.0004 ± 0.00021	-	-
2,4-Dichlorophenoxyacetic acid (24D)	g/m ³	< 0.0004 ± 0.00021	0.04	No
2,4-Dichlorophenoxybutyric acid (24DB)	g/m ³	< 0.0004 ± 0.00021	0.1	No
Dicamba	g/m ³	< 0.0004 ± 0.00021	-	-
Dichlorprop	g/m ³	< 0.0004 ± 0.00021	0.1	No
Fluazifop	g/m ³	< 0.0004 ± 0.00021	-	-
Fluroxypyr	g/m ³	< 0.0004 ± 0.00021	-	-
Haloxypop	g/m ³	< 0.0004 ± 0.00021	-	-
2-methyl-4-chlorophenoxyacetic acid (MCPA)	g/m ³	< 0.0004 ± 0.00021	0.002	No
2-methyl-4-chlorophenoxybutanoic acid (MCPB)	g/m ³	< 0.0004 ± 0.00021	-	-
Mecoprop	g/m ³	< 0.0004 ± 0.00021	0.01	No
Oryzalin	g/m ³	< 0.0006 ± 0.00023	0.4	No
2,3,4,6-Tetrachlorophenol (TCP)	g/m ³	< 0.0004 ± 0.00021	-	-
2,4,5-trichlorophenoxypropionic acid (245TP, Fenoprop, Silvex)	g/m ³	< 0.0004 ± 0.00021	0.01	No
2,4,5-Trichlorophenoxyacetic acid (245T)	g/m ³	< 0.0004 ± 0.00021	0.01	No
Pentachlorophenol (PCP)	g/m ³	< 0.0004 ± 0.00021	0.009	No
Picloram	g/m ³	< 0.0004 ± 0.00021	0.2	No
Quizalofop	g/m ³	< 0.0004 ± 0.00021	-	-
Triclopyr	g/m ³	< 0.0004 ± 0.00021	0.1	No
Multiresidue Extra Pesticides Trace in Water samples by Liq/liq				
Bendiocarb	g/m ³	< 0.00004 ± 0.000022	-	-
Benodanil	g/m ³	< 0.00008 ± 0.000039	-	-
Bifenthrin	g/m ³	< 0.00002 ± 0.0000079	-	-
Bromophos-ethyl	g/m ³	< 0.00004 ± 0.000022	-	-
Bupirimate	g/m ³	< 0.00004 ± 0.000021	-	-
Buprofezin	g/m ³	< 0.00004 ± 0.000021	-	-
Captafol	g/m ³	< 0.0002 ± 0.00014	-	-
Carbofenthion	g/m ³	< 0.00004 ± 0.000022	-	-
Carboxin	g/m ³	< 0.00004 ± 0.000024	-	-
Chlorfenvinphos	g/m ³	< 0.00004 ± 0.000022	-	-
Chlorpropham	g/m ³	< 0.00008 ± 0.000034	-	-
Chlozolinatate	g/m ³	< 0.00004 ± 0.000022	-	-
Coumaphos	g/m ³	< 0.00008 ± 0.000038	-	-
Cyproconazole	g/m ³	< 0.00004 ± 0.000022	-	-

Sample Type: Aqueous

Sample Name:		Waihi Beach Bore - G003050 04-May-2021 9:00 am	Maximum Acceptable Value	Outside Limit
Lab Number:		2603083.5		
Multiresidue Extra Pesticides Trace in Water samples by Liq/liq				
Cyprodinil	g/m ³	< 0.00004 ± 0.000027	-	-
Demeton-S-methyl	g/m ³	< 0.00008 ± 0.00018	-	-
Dichlobenil	g/m ³	< 0.00004 ± 0.000022	-	-
Dichlofenthion	g/m ³	< 0.00004 ± 0.000022	-	-
Dicofol	g/m ³	< 0.0002 ± 0.00014	-	-
Dicrotophos	g/m ³	< 0.00004 ± 0.000022	-	-
Dinocap	g/m ³	< 0.0003 ± 0.00012	-	-
Disulfoton	g/m ³	< 0.00004 ± 0.000023	-	-
EPN	g/m ³	< 0.00004 ± 0.000026	-	-
Esfenvalerate	g/m ³	< 0.00004 ± 0.000022	-	-
Ethion	g/m ³	< 0.00004 ± 0.000021	-	-
Etrimfos	g/m ³	< 0.00004 ± 0.000022	-	-
Famphur	g/m ³	< 0.00004 ± 0.000021	-	-
Fenamiphos	g/m ³	< 0.00004 ± 0.000022	-	-
Fenarimol	g/m ³	< 0.00004 ± 0.000023	-	-
Fenitrothion	g/m ³	< 0.00004 ± 0.000022	-	-
Fenpropathrin	g/m ³	< 0.00004 ± 0.000022	-	-
Fensulfothion	g/m ³	< 0.00004 ± 0.000026	-	-
Fenthion	g/m ³	< 0.00004 ± 0.000024	-	-
Fenvalerate	g/m ³	< 0.00004 ± 0.000021	-	-
Folpet	g/m ³	< 0.00008 ± 0.000027	-	-
Hexythiazox	g/m ³	< 0.0002 ± 0.000071	-	-
Imazalil	g/m ³	< 0.0002 ± 0.000059	-	-
Indoxacarb	g/m ³	< 0.00004 ± 0.000022	-	-
Iodofenphos	g/m ³	< 0.00004 ± 0.000015	-	-
Isazophos	g/m ³	< 0.00004 ± 0.000025	-	-
Isofenphos	g/m ³	< 0.00002 ± 0.000018	-	-
Leptophos	g/m ³	< 0.00004 ± 0.000023	-	-
Methacrifos	g/m ³	< 0.00004 ± 0.000022	-	-
Methidathion	g/m ³	< 0.00004 ± 0.000022	-	-
Methiocarb	g/m ³	< 0.00004 ± 0.000033	-	-
Mevinphos	g/m ³	< 0.00008 ± 0.000040	-	-
Nitrofen	g/m ³	< 0.00008 ± 0.000034	-	-
Nitrothal-Isopropyl	g/m ³	< 0.00004 ± 0.000023	-	-
Oxychlorane	g/m ³	< 0.00002 ± 0.000033	-	-
Penconazole	g/m ³	< 0.00004 ± 0.000022	-	-
Phorate	g/m ³	< 0.00008 ± 0.000028	-	-
Phosmet	g/m ³	< 0.00004 ± 0.000021	-	-
Phosphamidon	g/m ³	< 0.00004 ± 0.000057	-	-
Propetamphos	g/m ³	< 0.00006 ± 0.000027	-	-
Propham	g/m ³	< 0.00004 ± 0.000023	-	-
Prothiofos	g/m ³	< 0.00004 ± 0.000022	-	-
Pyrazophos	g/m ³	< 0.00004 ± 0.000022	-	-
Pyrifenox	g/m ³	< 0.00004 ± 0.000052	-	-
Pyrimethanil	g/m ³	< 0.00004 ± 0.000021	-	-
Quintozene	g/m ³	< 0.00008 ± 0.000026	-	-
Sulfotep	g/m ³	< 0.00004 ± 0.000022	-	-
Tebufenpyrad	g/m ³	< 0.00002 ± 0.000019	-	-
Tetrachlorvinphos	g/m ³	< 0.00004 ± 0.000021	-	-
Thiometon	g/m ³	< 0.00008 ± 0.000032	-	-
Triadimefon	g/m ³	< 0.00004 ± 0.000021	-	-
Organochlorine Pesticides Trace in water, By Liq/Liq				
Aldrin	g/m ³	< 0.000005 ± 0.0000034	-	-
alpha-BHC	g/m ³	< 0.000010 ± 0.0000067	-	-
beta-BHC	g/m ³	< 0.000010 ± 0.0000067	-	-

Sample Type: Aqueous					
Sample Name:		Waihi Beach Bore - G003050 04-May-2021 9:00 am		Maximum Acceptable Value	Outside Limit
Lab Number:		2603083.5			
Organochlorine Pesticides Trace in water, By Liq/Liq					
delta-BHC	g/m ³	< 0.000010 ± 0.0000067	-	-	
gamma-BHC (Lindane)	g/m ³	< 0.000010 ± 0.0000067	0.002	No	
cis-Chlordane	g/m ³	< 0.000005 ± 0.0000034	-	-	
trans-Chlordane	g/m ³	< 0.000005 ± 0.0000034	-	-	
2,4'-DDD	g/m ³	< 0.000010 ± 0.0000067	-	-	
4,4'-DDD	g/m ³	< 0.000010 ± 0.0000067	-	-	
2,4'-DDE	g/m ³	< 0.000010 ± 0.0000067	-	-	
4,4'-DDE	g/m ³	< 0.000010 ± 0.0000067	-	-	
2,4'-DDT	g/m ³	< 0.000010 ± 0.0000067	-	-	
4,4'-DDT	g/m ³	< 0.000010 ± 0.0000067	-	-	
Total DDT Isomers	g/m ³	< 0.00006	0.001	No	
Dieldrin	g/m ³	< 0.000005 ± 0.0000034	-	-	
Endosulfan I	g/m ³	< 0.000010 ± 0.0000067	-	-	
Endosulfan II	g/m ³	< 0.000010 ± 0.0000067	-	-	
Endosulfan sulphate	g/m ³	< 0.000010 ± 0.0000067	-	-	
Endrin	g/m ³	< 0.000005 ± 0.0000034	0.001	No	
Endrin aldehyde	g/m ³	< 0.000005 ± 0.0000034	-	-	
Endrin ketone	g/m ³	< 0.000010 ± 0.0000067	-	-	
Heptachlor	g/m ³	< 0.000005 ± 0.0000034	-	-	
Heptachlor epoxide	g/m ³	< 0.000005 ± 0.0000034	-	-	
Hexachlorobenzene	g/m ³	< 0.00004 ± 0.000027	-	-	
Methoxychlor	g/m ³	< 0.000005 ± 0.0000034	0.02	No	
Polycyclic Aromatic Hydrocarbons Trace in Water, By Liq/Liq					
Acenaphthene	g/m ³	< 0.000005 ± 0.0000034	-	-	
Acenaphthylene	g/m ³	< 0.000005 ± 0.0000034	-	-	
Anthracene	g/m ³	< 0.000005 ± 0.0000034	-	-	
Benzo[a]anthracene	g/m ³	< 0.000005 ± 0.0000034	-	-	
Benzo[a]pyrene (BAP)	g/m ³	< 0.000005 ± 0.0000034	0.0007	No	
Benzo[b]fluoranthene + Benzo[j]fluoranthene	g/m ³	< 0.000005 ± 0.0000034	-	-	
Benzo[g,h,i]perylene	g/m ³	< 0.000005 ± 0.0000034	-	-	
Benzo[k]fluoranthene	g/m ³	< 0.000005 ± 0.0000034	-	-	
Chrysene	g/m ³	< 0.000005 ± 0.0000034	-	-	
Dibenzo[a,h]anthracene	g/m ³	< 0.000005 ± 0.0000034	-	-	
Fluoranthene	g/m ³	< 0.000005 ± 0.0000034	-	-	
Fluorene	g/m ³	< 0.000005 ± 0.0000055	-	-	
Indeno(1,2,3-c,d)pyrene	g/m ³	< 0.000005 ± 0.0000034	-	-	
Naphthalene	g/m ³	< 0.00003 ± 0.000020	-	-	
Phenanthrene	g/m ³	< 0.000005 ± 0.000013	-	-	
Pyrene	g/m ³	< 0.000005 ± 0.0000057	-	-	
BTEX in VOC Water by Headspace GC-MS					
Benzene	g/m ³	< 0.0003 ± 0.00032	0.01	No	
Ethylbenzene	g/m ³	< 0.0005 ± 0.00034	0.3	No	
Toluene	g/m ³	< 0.0003 ± 0.00060	0.8	No	
m&p-Xylene	g/m ³	< 0.0005 ± 0.00034	-	-	
o-Xylene	g/m ³	< 0.0003 ± 0.00031	-	-	
Halogenated Aliphatics in VOC Water by Headspace GC-MS					
Bromomethane (Methyl Bromide)	g/m ³	< 0.0003 ± 0.00031	-	-	
Carbon tetrachloride	g/m ³	< 0.0003 ± 0.00030	0.005	No	
Chloroethane	g/m ³	< 0.0003 ± 0.00031	-	-	
Chloromethane	g/m ³	< 0.0003 ± 0.00031	-	-	
1,2-Dibromo-3-chloropropane	g/m ³	< 0.0003 ± 0.00026	0.001	No	
1,2-Dibromoethane (ethylene dibromide, EDB)	g/m ³	< 0.0003 ± 0.00025	0.0004	No	
Dibromomethane	g/m ³	< 0.0003 ± 0.00031	-	-	

Sample Type: Aqueous				
Sample Name:	Waihi Beach Bore - G003050 04-May-2021 9:00 am		Maximum Acceptable Value	Outside Limit
Lab Number:	2603083.5			
Halogenated Aliphatics in VOC Water by Headspace GC-MS				
Dichlorodifluoromethane	g/m ³	< 0.0003 ± 0.00030	-	-
1,1-Dichloroethane	g/m ³	< 0.0003 ± 0.00031	-	-
1,2-Dichloroethane	g/m ³	< 0.0003 ± 0.00030	0.03	No
1,1-Dichloroethene	g/m ³	< 0.0003 ± 0.00032	-	-
cis-1,2-Dichloroethene	g/m ³	< 0.0003 ± 0.00031	-	-
trans-1,2-Dichloroethene	g/m ³	< 0.0003 ± 0.00030	-	-
Dichloromethane (methylene chloride)	g/m ³	< 0.010 ± 0.0067	0.02	No
1,2-Dichloropropane	g/m ³	< 0.0003 ± 0.00031	0.05	No
1,3-Dichloropropane	g/m ³	< 0.0003 ± 0.00031	-	-
1,1-Dichloropropene	g/m ³	< 0.0003 ± 0.00031	-	-
cis-1,3-Dichloropropene	g/m ³	< 0.0005 ± 0.00034	-	-
trans-1,3-Dichloropropene	g/m ³	< 0.0005 ± 0.00034	-	-
Hexachlorobutadiene	g/m ³	< 0.0003 ± 0.00030	0.0007	No
1,1,1,2-Tetrachloroethane	g/m ³	< 0.0003 ± 0.00031	-	-
1,1,1,2,2-Tetrachloroethane	g/m ³	< 0.0003 ± 0.00031	-	-
Tetrachloroethene (tetrachloroethylene)	g/m ³	< 0.0003 ± 0.00032	0.05	No
1,1,1-Trichloroethane	g/m ³	< 0.0003 ± 0.00030	-	-
1,1,2-Trichloroethane	g/m ³	< 0.0003 ± 0.00031	-	-
Trichloroethene (trichloroethylene)	g/m ³	< 0.0003 ± 0.00031	0.02	No
Trichlorofluoromethane	g/m ³	< 0.0003 ± 0.00032	-	-
1,2,3-Trichloropropane	g/m ³	< 0.0003 ± 0.00031	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	g/m ³	< 0.0003 ± 0.00027	-	-
Vinyl chloride	g/m ³	< 0.0003 ± 0.00030	0.0003	No
Halogenated Aromatics in VOC Water by Headspace GC-MS				
Chlorobenzene (monochlorobenzene)	g/m ³	< 0.0003 ± 0.00031	-	-
1,2-Dichlorobenzene	g/m ³	< 0.0003 ± 0.00031	1.5	No
1,3-Dichlorobenzene	g/m ³	< 0.0003 ± 0.00031	-	-
1,4-Dichlorobenzene	g/m ³	< 0.0003 ± 0.00031	0.4	No
1,2,3-Trichlorobenzene	g/m ³	< 0.0003 ± 0.00029	-	-
1,2,4-Trichlorobenzene	g/m ³	< 0.0003 ± 0.00029	-	-
1,3,5-Trichlorobenzene	g/m ³	< 0.0003 ± 0.00031	-	-
Bromobenzene	g/m ³	< 0.0003 ± 0.00031	-	-
2-Chlorotoluene	g/m ³	< 0.0003 ± 0.00031	-	-
4-Chlorotoluene	g/m ³	< 0.0003 ± 0.00031	-	-
Monoaromatic Hydrocarbons in VOC Water by Headspace GC-MS				
n-Butylbenzene	g/m ³	< 0.0005 ± 0.00034	-	-
tert-Butylbenzene	g/m ³	< 0.0003 ± 0.00031	-	-
4-Isopropyltoluene (p-Cymene)	g/m ³	< 0.0005 ± 0.00034	-	-
Isopropylbenzene (Cumene)	g/m ³	< 0.0003 ± 0.00031	-	-
n-Propylbenzene	g/m ³	< 0.0005 ± 0.00034	-	-
sec-Butylbenzene	g/m ³	< 0.0003 ± 0.00031	-	-
Styrene	g/m ³	< 0.0005 ± 0.00034	0.03	No
1,2,4-Trimethylbenzene	g/m ³	< 0.0003 ± 0.00031	-	-
1,3,5-Trimethylbenzene	g/m ³	< 0.0003 ± 0.00031	-	-
Ketones in VOC Water by Headspace GC-MS				
Acetone	g/m ³	< 0.05 ± 0.034	-	-
2-Butanone (MEK)	g/m ³	< 0.05 ± 0.016	-	-
Methyl tert-butylether (MTBE)	g/m ³	< 0.0003 ± 0.00031	-	-
4-Methylpentan-2-one (MIBK)	g/m ³	< 0.010 ± 0.0045	-	-
Trihalomethanes in VOC Water by Headspace GC-MS				
Bromodichloromethane	g/m ³	< 0.0003 ± 0.00030	0.06	No
Bromoform (tribromomethane)	g/m ³	< 0.0005 ± 0.00034	0.1	No
Chloroform (Trichloromethane)	g/m ³	< 0.0003 ± 0.00030	0.4	No
Dibromochloromethane	g/m ³	< 0.0003 ± 0.00030	0.15	No

Sample Type: Aqueous			
Sample Name:	Waihi Beach Bore - G003050 04-May-2021 9:00 am	Maximum Acceptable Value	Outside Limit
Lab Number:	2603083.5		
Other VOC in Water by Headspace GC-MS			
Carbon disulphide	g/m ³	< 0.0005 ± 0.0031	-
Naphthalene	g/m ³	< 0.0005 ± 0.00034	-
Sample Name:	Athenree North Bore - G00304 04-May-2021 10:10 am	Maximum Acceptable Value	Outside Limit
Lab Number:	2603083.6		
Individual Tests			
Turbidity	NTU	0.070 ± 0.034	-
Total Alkalinity	g/m ³ as CaCO ₃	63.6 ± 2.7	-
Carbonate	g/m ³ at 25°C	< 1.0 ± 0.031	-
Bicarbonate	g/m ³ at 25°C	77.3 ± 3.9	-
Free Carbon Dioxide	g/m ³ at 25°C	4.1 ± 2.0	-
Total Hardness	g/m ³ as CaCO ₃	45.4 ± 2.0	-
Total Suspended Solids	g/m ³	< 3 ± 2.1	-
Total Dissolved Solids (TDS)	g/m ³	166 ± 21	-
Dissolved Aluminium	g/m ³	< 0.003 ± 0.0021	-
Dissolved Antimony	g/m ³	< 0.0002 ± 0.00014	-
Dissolved Arsenic	g/m ³	0.00183 ± 0.00068	-
Dissolved Barium	g/m ³	< 0.005 ± 0.00025	-
Total Boron	g/m ³	0.0213 ± 0.0046	1.4
Dissolved Cadmium	g/m ³	< 0.00005 ± 0.000034	-
Total Calcium	g/m ³	9.59 ± 0.39	-
Dissolved Chromium	g/m ³	< 0.0005 ± 0.00034	-
Total Copper	g/m ³	0.00153 ± 0.00039	2
Total Iron	g/m ³	< 0.021 ± 0.014	-
Dissolved Lead	g/m ³	0.000518 ± 0.000076	-
Total Magnesium	g/m ³	5.22 ± 0.42	-
Total Manganese	g/m ³	< 0.00053 ± 0.00036	0.4
Dissolved Mercury	g/m ³	< 0.00008 ± 0.000054	-
Dissolved Molybdenum	g/m ³	0.00026 ± 0.00014	-
Dissolved Nickel	g/m ³	< 0.0005 ± 0.00034	-
Dissolved Selenium	g/m ³	< 0.0010 ± 0.00067	-
Dissolved Silver	g/m ³	< 0.00010 ± 0.000067	-
Total Sodium	g/m ³	20.5 ± 1.3	-
Dissolved Tin	g/m ³	< 0.0005 ± 0.00034	-
Total Zinc	g/m ³	0.0175 ± 0.0016	-
Bromate	g/m ³	< 0.005 ± 0.0034	0.01
Chloride	g/m ³	17.0 ± 1.1	-
Fluoride	g/m ³	0.080 ± 0.042	1.5
Total Ammoniacal-N	g/m ³	< 0.010 ± 0.0067	-
Nitrite-N	g/m ³	< 0.002 ± 0.0014	0.06 0.91 (short term)
Nitrate-N	g/m ³	0.254 ± 0.031	11.3
Nitrate-N + Nitrite-N	g/m ³	0.254 ± 0.031	-
Reactive Silica	g/m ³ as SiO ₂	70.8 ± 1.5	-
Sulphate	g/m ³	3.38 ± 0.40	-
Non-Purgeable Organic Carbon (NPOC)	g/m ³	< 0.3 ± 0.20	-
Absorbance at 254 nm	AU cm ⁻¹	0.0047 ± 0.0021	-
Transmittance at 254 nm*	%T, 1 cm cell	98.9	-
Absorbance at 270 nm	AU cm ⁻¹	0.0046 ± 0.0021	-
Transmittance at 270 nm*	%T, 1 cm cell	98.9	-
Total Coliforms	cfu / 100mL	< 1 #1	-
Enterococci	cfu / 100mL	< 1 #1	-
Faecal Coliforms and E. coli profile			
Faecal Coliforms	cfu / 100mL	< 1 #1	-
Escherichia coli	cfu / 100mL	< 1 #1	No

Sample Type: Aqueous				
Sample Name:	Athenree North Bore - G00304 04-May-2021 10:10 am		Maximum Acceptable Value	Outside Limit
Lab Number:	2603083.6			
Hazen Colour Profile				
Apparent Hazen Colour	Hazen units	< 10 ± 20	-	-
OrganoNitrogen & Phosphorus pesticides, trace, liq/liq GCMS				
Acetochlor	g/m ³	< 0.00004 ± 0.00042	-	-
Alachlor	g/m ³	< 0.00004 ± 0.00018	0.02	No
Atrazine	g/m ³	< 0.00004 ± 0.000024	0.002	No
Atrazine-desethyl	g/m ³	< 0.00004 ± 0.00041	-	-
Atrazine-desisopropyl	g/m ³	< 0.00008 ± 0.00018	-	-
Azaconazole	g/m ³	< 0.00002 ± 0.0000071	-	-
Azinphos-methyl	g/m ³	< 0.00008 ± 0.000036	0.004	No
Benalaxyl	g/m ³	< 0.00002 ± 0.0000094	-	-
Bitertanol	g/m ³	< 0.00008 ± 0.000048	-	-
Bromacil	g/m ³	< 0.00004 ± 0.000025	0.4	No
Bromopropylate	g/m ³	< 0.00004 ± 0.000022	-	-
Butachlor	g/m ³	< 0.00004 ± 0.000021	-	-
Captan	g/m ³	< 0.00008 ± 0.000060	-	-
Carbaryl	g/m ³	< 0.00004 ± 0.000021	-	-
Carbofenothion	g/m ³	< 0.00004 ± 0.000022	-	-
Carbofuran	g/m ³	< 0.00004 ± 0.000022	0.008	No
Chlorfluazuron	g/m ³	< 0.00004 ± 0.000032	-	-
Chlorothalonil	g/m ³	< 0.00004 ± 0.000022	-	-
Chlorpyrifos	g/m ³	< 0.00004 ± 0.000022	0.04	No
Chlorpyrifos-methyl	g/m ³	< 0.00004 ± 0.000022	-	-
Chlortoluron	g/m ³	< 0.00008 ± 0.000062	0.04	No
Cyanazine	g/m ³	< 0.00004 ± 0.000021	0.0007	No
Cyfluthrin	g/m ³	< 0.00004 ± 0.000027	-	-
Cyhalothrin	g/m ³	< 0.00004 ± 0.000022	-	-
Cypermethrin	g/m ³	< 0.00008 ± 0.000043	-	-
Deltamethrin (including Tralomethrin)	g/m ³	< 0.00006 ± 0.000027	-	-
Diazinon	g/m ³	< 0.00002 ± 0.0000083	-	-
Dichlofluanid	g/m ³	< 0.00004 ± 0.00018	-	-
Dichloran	g/m ³	< 0.0002 ± 0.000089	-	-
Dichlorvos	g/m ³	< 0.00008 ± 0.00018	-	-
Difenoconazole	g/m ³	< 0.00008 ± 0.000043	-	-
Dimethoate	g/m ³	< 0.00008 ± 0.000057	0.008	No
Diphenylamine	g/m ³	< 0.00008 ± 0.00018	-	-
Diuron	g/m ³	< 0.00004 ± 0.000023	0.02	No
Fenpropimorph	g/m ³	< 0.00004 ± 0.000022	-	-
Fluazifop-butyl	g/m ³	< 0.00004 ± 0.000022	-	-
Fluometuron	g/m ³	< 0.00004 ± 0.000026	-	-
Flusilazole	g/m ³	< 0.00004 ± 0.000028	-	-
Fluvalinate	g/m ³	< 0.00004 ± 0.000011	-	-
Furalaxyl	g/m ³	< 0.00002 ± 0.0000079	-	-
Haloxifop-methyl	g/m ³	< 0.00004 ± 0.000027	-	-
Hexaconazole	g/m ³	< 0.00004 ± 0.000060	-	-
Hexazinone	g/m ³	< 0.00002 ± 0.000017	0.4	No
IPBC (3-Iodo-2-propynyl-n-butylcarbamate)	g/m ³	< 0.0002 ± 0.00011	-	-
Kresoxim-methyl	g/m ³	< 0.00002 ± 0.000019	-	-
Linuron	g/m ³	< 0.00005 ± 0.000021	-	-
Malathion	g/m ³	< 0.00004 ± 0.000022	-	-
Metalaxyl	g/m ³	< 0.00004 ± 0.000023	0.1	No
Metolachlor	g/m ³	< 0.00004 ± 0.000021	0.01	No
Metribuzin	g/m ³	< 0.00004 ± 0.000027	0.07	No
Molinate	g/m ³	< 0.00008 ± 0.000030	0.007	No
Myclobutanil	g/m ³	< 0.00004 ± 0.000033	-	-

Sample Type: Aqueous					
Sample Name:		Athenree North Bore - G00304 04-May-2021 10:10 am		Maximum Acceptable Value	Outside Limit
Lab Number:		2603083.6			
OrganoNitrogen & Phosphorus pesticides, trace, liq/liq GCMS					
Naled	g/m ³	< 0.0002 ± 0.000056	-	-	
Norflurazon	g/m ³	< 0.00008 ± 0.000028	-	-	
Oxadiazon	g/m ³	< 0.00004 ± 0.000022	0.2	No	
Oxyfluorfen	g/m ³	< 0.00002 ± 0.000019	-	-	
Paclobutrazol	g/m ³	< 0.00004 ± 0.000023	-	-	
Parathion-ethyl	g/m ³	< 0.00004 ± 0.000022	-	-	
Parathion-methyl	g/m ³	< 0.00004 ± 0.000022	-	-	
Pendimethalin	g/m ³	< 0.00004 ± 0.000051	0.02	No	
Permethrin	g/m ³	< 0.00002 ± 0.000020	-	-	
Pirimicarb	g/m ³	< 0.00004 ± 0.000015	-	-	
Pirimiphos-methyl	g/m ³	< 0.00004 ± 0.000024	0.1	No	
Prochloraz	g/m ³	< 0.0002 ± 0.000059	-	-	
Procymidone	g/m ³	< 0.00004 ± 0.000021	0.7	No	
Prometryn	g/m ³	< 0.00002 ± 0.000020	-	-	
Propachlor	g/m ³	< 0.00004 ± 0.000024	-	-	
Propanil	g/m ³	< 0.0002 ± 0.000056	-	-	
Propazine	g/m ³	< 0.00002 ± 0.000020	0.07	No	
Propiconazole	g/m ³	< 0.00004 ± 0.000033	-	-	
Pyriproxyfen	g/m ³	< 0.00004 ± 0.000033	0.4	No	
Quizalofop-ethyl	g/m ³	< 0.00004 ± 0.000022	-	-	
Simazine	g/m ³	< 0.00004 ± 0.000013	0.002	No	
Simetryn	g/m ³	< 0.00004 ± 0.000022	-	-	
Sulfentrazone	g/m ³	< 0.0002 ± 0.000056	-	-	
TCMTB [2-(thiocyanomethylthio) benzothiazole, Busan]	g/m ³	< 0.00008 ± 0.000032	-	-	
Tebuconazole	g/m ³	< 0.00004 ± 0.000059	-	-	
Terbacil	g/m ³	< 0.00004 ± 0.000032	0.04	No	
Terbufos	g/m ³	< 0.00004 ± 0.000011	-	-	
Terbumeton	g/m ³	< 0.00004 ± 0.000021	-	-	
Terbuthylazine	g/m ³	< 0.00002 ± 0.0000079	0.008	No	
Terbuthylazine-desethyl	g/m ³	< 0.00004 ± 0.000038	-	-	
Terbutryn	g/m ³	< 0.00004 ± 0.000023	-	-	
Thiabendazole	g/m ³	< 0.0002 ± 0.000063	0.4	No	
Thiobencarb	g/m ³	< 0.00004 ± 0.000022	-	-	
Tolyfluanid	g/m ³	< 0.00002 ± 0.000019	-	-	
Triazophos	g/m ³	< 0.00004 ± 0.000032	-	-	
Trifluralin	g/m ³	< 0.00004 ± 0.000027	0.03	No	
Vinclozolin	g/m ³	< 0.00004 ± 0.000048	-	-	
Hydrogen sulphide trace level profile*					
pH	pH Units	7.5 ± 0.2	-	-	
Electrical Conductivity (EC)	mS/m	19.0 ± 0.4	-	-	
Sample Temperature*	°C	20.0	-	-	
Un-ionised hydrogen sulphide	g/m ³	< 0.002	-	-	
Total Sulphide	g/m ³	< 0.002 ± 0.0014	-	-	
Acid Herbicides Screen in Water by LCMSMS					
Acifluorfen	g/m ³	< 0.0004 ± 0.00021	-	-	
Bentazone	g/m ³	< 0.0004 ± 0.00021	-	-	
Bromoxynil	g/m ³	< 0.0004 ± 0.00021	-	-	
Clopyralid	g/m ³	< 0.0004 ± 0.00021	-	-	
2,4-Dichlorophenoxyacetic acid (24D)	g/m ³	< 0.0004 ± 0.00021	0.04	No	
2,4-Dichlorophenoxybutyric acid (24DB)	g/m ³	< 0.0004 ± 0.00021	0.1	No	
Dicamba	g/m ³	< 0.0004 ± 0.00021	-	-	
Dichlorprop	g/m ³	< 0.0004 ± 0.00021	0.1	No	
Fluazifop	g/m ³	< 0.0004 ± 0.00021	-	-	
Fluroxypyr	g/m ³	< 0.0004 ± 0.00021	-	-	

Sample Type: Aqueous					
Sample Name:		Athenree North Bore - G00304 04-May-2021 10:10 am		Maximum Acceptable Value	Outside Limit
Lab Number:		2603083.6			
Acid Herbicides Screen in Water by LCMSMS					
Haloxyfop	g/m ³	< 0.0004 ± 0.00021	-	-	
2-methyl-4-chlorophenoxyacetic acid (MCPA)	g/m ³	< 0.0004 ± 0.00021	0.002	No	
2-methyl-4-chlorophenoxybutanoic acid (MCPB)	g/m ³	< 0.0004 ± 0.00021	-	-	
Mecoprop	g/m ³	< 0.0004 ± 0.00021	0.01	No	
Oryzalin	g/m ³	< 0.0006 ± 0.00023	0.4	No	
2,3,4,6-Tetrachlorophenol (TCP)	g/m ³	< 0.0004 ± 0.00021	-	-	
2,4,5-trichlorophenoxypropionic acid (245TP,Fenoprop, Silvex)	g/m ³	< 0.0004 ± 0.00021	0.01	No	
2,4,5-Trichlorophenoxyacetic acid (245T)	g/m ³	< 0.0004 ± 0.00021	0.01	No	
Pentachlorophenol (PCP)	g/m ³	< 0.0004 ± 0.00021	0.009	No	
Picloram	g/m ³	< 0.0004 ± 0.00021	0.2	No	
Quizalofop	g/m ³	< 0.0004 ± 0.00021	-	-	
Triclopyr	g/m ³	< 0.0004 ± 0.00021	0.1	No	
Multiresidue Extra Pesticides Trace in Water samples by Liq/liq					
Bendiocarb	g/m ³	< 0.00004 ± 0.000022	-	-	
Benodanil	g/m ³	< 0.00008 ± 0.000039	-	-	
Bifenthrin	g/m ³	< 0.00002 ± 0.0000079	-	-	
Bromophos-ethyl	g/m ³	< 0.00004 ± 0.000022	-	-	
Bupirimate	g/m ³	< 0.00004 ± 0.000021	-	-	
Buprofezin	g/m ³	< 0.00004 ± 0.000021	-	-	
Captafol	g/m ³	< 0.0002 ± 0.00014	-	-	
Carbofenthiol	g/m ³	< 0.00004 ± 0.000022	-	-	
Carboxin	g/m ³	< 0.00004 ± 0.000024	-	-	
Chlorfenvinphos	g/m ³	< 0.00004 ± 0.000022	-	-	
Chlorpropham	g/m ³	< 0.00008 ± 0.000034	-	-	
Chlozolinat	g/m ³	< 0.00004 ± 0.000022	-	-	
Coumaphos	g/m ³	< 0.00008 ± 0.000038	-	-	
Cyproconazole	g/m ³	< 0.00004 ± 0.000022	-	-	
Cyprodinil	g/m ³	< 0.00004 ± 0.000027	-	-	
Demeton-S-methyl	g/m ³	< 0.00008 ± 0.00018	-	-	
Dichlobenil	g/m ³	< 0.00004 ± 0.000022	-	-	
Dichlofenthion	g/m ³	< 0.00004 ± 0.000022	-	-	
Dicofol	g/m ³	< 0.0002 ± 0.00014	-	-	
Dicrotophos	g/m ³	< 0.00004 ± 0.000022	-	-	
Dinocap	g/m ³	< 0.0003 ± 0.00012	-	-	
Disulfoton	g/m ³	< 0.00004 ± 0.000023	-	-	
EPN	g/m ³	< 0.00004 ± 0.000026	-	-	
Esfenvalerate	g/m ³	< 0.00004 ± 0.000022	-	-	
Ethion	g/m ³	< 0.00004 ± 0.000021	-	-	
Etrimfos	g/m ³	< 0.00004 ± 0.000022	-	-	
Famphur	g/m ³	< 0.00004 ± 0.000021	-	-	
Fenamiphos	g/m ³	< 0.00004 ± 0.000022	-	-	
Fenarimol	g/m ³	< 0.00004 ± 0.000023	-	-	
Fenitrothion	g/m ³	< 0.00004 ± 0.000022	-	-	
Fenpropathrin	g/m ³	< 0.00004 ± 0.000022	-	-	
Fensulfothion	g/m ³	< 0.00004 ± 0.000026	-	-	
Fenthion	g/m ³	< 0.00004 ± 0.000024	-	-	
Fenvalerate	g/m ³	< 0.00004 ± 0.000021	-	-	
Folpet	g/m ³	< 0.00008 ± 0.000027	-	-	
Hexythiazox	g/m ³	< 0.0002 ± 0.000071	-	-	
Imazalil	g/m ³	< 0.0002 ± 0.000059	-	-	
Indoxacarb	g/m ³	< 0.00004 ± 0.000022	-	-	
Iodofenphos	g/m ³	< 0.00004 ± 0.000015	-	-	
Isazophos	g/m ³	< 0.00004 ± 0.000025	-	-	

Sample Type: Aqueous				
Sample Name:	Athenree North Bore - G00304 04-May-2021 10:10 am		Maximum Acceptable Value	Outside Limit
Lab Number:	2603083.6			
Multiresidue Extra Pesticides Trace in Water samples by Liq/liq				
Isofenphos	g/m ³	< 0.00002 ± 0.000018	-	-
Leptophos	g/m ³	< 0.00004 ± 0.000023	-	-
Methacrifos	g/m ³	< 0.00004 ± 0.000022	-	-
Methidathion	g/m ³	< 0.00004 ± 0.000022	-	-
Methiocarb	g/m ³	< 0.00004 ± 0.000033	-	-
Mevinphos	g/m ³	< 0.00008 ± 0.000040	-	-
Nitrofen	g/m ³	< 0.00008 ± 0.000034	-	-
Nitrothal-Isopropyl	g/m ³	< 0.00004 ± 0.000023	-	-
Oxychlordane	g/m ³	< 0.00002 ± 0.000033	-	-
Penconazole	g/m ³	< 0.00004 ± 0.000022	-	-
Phorate	g/m ³	< 0.00008 ± 0.000028	-	-
Phosmet	g/m ³	< 0.00004 ± 0.000021	-	-
Phosphamidon	g/m ³	< 0.00004 ± 0.000057	-	-
Propetamphos	g/m ³	< 0.00006 ± 0.000027	-	-
Propham	g/m ³	< 0.00004 ± 0.000023	-	-
Prothiofos	g/m ³	< 0.00004 ± 0.000022	-	-
Pyrazophos	g/m ³	< 0.00004 ± 0.000022	-	-
Pyrifenox	g/m ³	< 0.00004 ± 0.000052	-	-
Pyrimethanil	g/m ³	< 0.00004 ± 0.000021	-	-
Quintozene	g/m ³	< 0.00008 ± 0.000026	-	-
Sulfotep	g/m ³	< 0.00004 ± 0.000022	-	-
Tebufenpyrad	g/m ³	< 0.00002 ± 0.000019	-	-
Tetrachlorvinphos	g/m ³	< 0.00004 ± 0.000021	-	-
Thiometon	g/m ³	< 0.00008 ± 0.000032	-	-
Triadimefon	g/m ³	< 0.00004 ± 0.000021	-	-
Organochlorine Pesticides Trace in water, By Liq/Liq				
Aldrin	g/m ³	< 0.000005 ± 0.0000034	-	-
alpha-BHC	g/m ³	< 0.000010 ± 0.0000067	-	-
beta-BHC	g/m ³	< 0.000010 ± 0.0000067	-	-
delta-BHC	g/m ³	< 0.000010 ± 0.0000067	-	-
gamma-BHC (Lindane)	g/m ³	< 0.000010 ± 0.0000067	0.002	No
cis-Chlordane	g/m ³	< 0.000005 ± 0.0000034	-	-
trans-Chlordane	g/m ³	< 0.000005 ± 0.0000034	-	-
2,4'-DDD	g/m ³	< 0.000010 ± 0.0000067	-	-
4,4'-DDD	g/m ³	< 0.000010 ± 0.0000067	-	-
2,4'-DDE	g/m ³	< 0.000010 ± 0.0000067	-	-
4,4'-DDE	g/m ³	< 0.000010 ± 0.0000067	-	-
2,4'-DDT	g/m ³	< 0.000010 ± 0.0000067	-	-
4,4'-DDT	g/m ³	< 0.000010 ± 0.0000067	-	-
Total DDT Isomers	g/m ³	< 0.00006	0.001	No
Dieldrin	g/m ³	< 0.000005 ± 0.0000034	-	-
Endosulfan I	g/m ³	< 0.000010 ± 0.0000067	-	-
Endosulfan II	g/m ³	< 0.000010 ± 0.0000067	-	-
Endosulfan sulphate	g/m ³	< 0.000010 ± 0.0000067	-	-
Endrin	g/m ³	< 0.000005 ± 0.0000034	0.001	No
Endrin aldehyde	g/m ³	< 0.000005 ± 0.0000034	-	-
Endrin ketone	g/m ³	< 0.000010 ± 0.0000067	-	-
Heptachlor	g/m ³	< 0.000005 ± 0.0000034	-	-
Heptachlor epoxide	g/m ³	< 0.000005 ± 0.0000034	-	-
Hexachlorobenzene	g/m ³	< 0.00004 ± 0.000027	-	-
Methoxychlor	g/m ³	< 0.000005 ± 0.0000034	0.02	No
Polycyclic Aromatic Hydrocarbons Trace in Water, By Liq/Liq				
Acenaphthene	g/m ³	< 0.000005 ± 0.0000034	-	-
Acenaphthylene	g/m ³	< 0.000005 ± 0.0000034	-	-
Anthracene	g/m ³	< 0.000005 ± 0.0000034	-	-

Sample Type: Aqueous				
Sample Name:	Athenree North Bore - G00304 04-May-2021 10:10 am		Maximum Acceptable Value	Outside Limit
Lab Number:	2603083.6			
Polycyclic Aromatic Hydrocarbons Trace in Water, By Liq/Liq				
Benzo[a]anthracene	g/m ³	< 0.000005 ± 0.0000034	-	-
Benzo[a]pyrene (BAP)	g/m ³	< 0.000005 ± 0.0000034	0.0007	No
Benzo[b]fluoranthene + Benzo[j]fluoranthene	g/m ³	< 0.000005 ± 0.0000034	-	-
Benzo[g,h,i]perylene	g/m ³	< 0.000005 ± 0.0000034	-	-
Benzo[k]fluoranthene	g/m ³	< 0.000005 ± 0.0000034	-	-
Chrysene	g/m ³	< 0.000005 ± 0.0000034	-	-
Dibenzo[a,h]anthracene	g/m ³	< 0.000005 ± 0.0000034	-	-
Fluoranthene	g/m ³	< 0.000005 ± 0.0000034	-	-
Fluorene	g/m ³	< 0.000005 ± 0.0000055	-	-
Indeno(1,2,3-c,d)pyrene	g/m ³	< 0.000005 ± 0.0000034	-	-
Naphthalene	g/m ³	< 0.00003 ± 0.000020	-	-
Phenanthrene	g/m ³	< 0.000005 ± 0.000013	-	-
Pyrene	g/m ³	< 0.000005 ± 0.0000057	-	-
BTEX in VOC Water by Headspace GC-MS				
Benzene	g/m ³	< 0.0003 ± 0.00032	0.01	No
Ethylbenzene	g/m ³	< 0.0005 ± 0.00034	0.3	No
Toluene	g/m ³	< 0.0003 ± 0.00060	0.8	No
m&p-Xylene	g/m ³	< 0.0005 ± 0.00034	-	-
o-Xylene	g/m ³	< 0.0003 ± 0.00031	-	-
Halogenated Aliphatics in VOC Water by Headspace GC-MS				
Bromomethane (Methyl Bromide)	g/m ³	< 0.0003 ± 0.00031	-	-
Carbon tetrachloride	g/m ³	< 0.0003 ± 0.00030	0.005	No
Chloroethane	g/m ³	< 0.0003 ± 0.00031	-	-
Chloromethane	g/m ³	< 0.0003 ± 0.00031	-	-
1,2-Dibromo-3-chloropropane	g/m ³	< 0.0003 ± 0.00026	0.001	No
1,2-Dibromoethane (ethylene dibromide, EDB)	g/m ³	< 0.0003 ± 0.00025	0.0004	No
Dibromomethane	g/m ³	< 0.0003 ± 0.00031	-	-
Dichlorodifluoromethane	g/m ³	< 0.0003 ± 0.00030	-	-
1,1-Dichloroethane	g/m ³	< 0.0003 ± 0.00031	-	-
1,2-Dichloroethane	g/m ³	< 0.0003 ± 0.00030	0.03	No
1,1-Dichloroethene	g/m ³	< 0.0003 ± 0.00032	-	-
cis-1,2-Dichloroethene	g/m ³	< 0.0003 ± 0.00031	-	-
trans-1,2-Dichloroethene	g/m ³	< 0.0003 ± 0.00030	-	-
Dichloromethane (methylene chloride)	g/m ³	< 0.010 ± 0.0067	0.02	No
1,2-Dichloropropane	g/m ³	< 0.0003 ± 0.00031	0.05	No
1,3-Dichloropropane	g/m ³	< 0.0003 ± 0.00031	-	-
1,1-Dichloropropene	g/m ³	< 0.0003 ± 0.00031	-	-
cis-1,3-Dichloropropene	g/m ³	< 0.0005 ± 0.00034	-	-
trans-1,3-Dichloropropene	g/m ³	< 0.0005 ± 0.00034	-	-
Hexachlorobutadiene	g/m ³	< 0.0003 ± 0.00030	0.0007	No
1,1,1,2-Tetrachloroethane	g/m ³	< 0.0003 ± 0.00031	-	-
1,1,2,2-Tetrachloroethane	g/m ³	< 0.0003 ± 0.00031	-	-
Tetrachloroethene (tetrachloroethylene)	g/m ³	< 0.0003 ± 0.00032	0.05	No
1,1,1-Trichloroethane	g/m ³	< 0.0003 ± 0.00030	-	-
1,1,2-Trichloroethane	g/m ³	< 0.0003 ± 0.00031	-	-
Trichloroethene (trichloroethylene)	g/m ³	< 0.0003 ± 0.00031	0.02	No
Trichlorofluoromethane	g/m ³	< 0.0003 ± 0.00032	-	-
1,2,3-Trichloropropane	g/m ³	< 0.0003 ± 0.00031	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	g/m ³	< 0.0003 ± 0.00027	-	-
Vinyl chloride	g/m ³	< 0.0003 ± 0.00030	0.0003	No
Halogenated Aromatics in VOC Water by Headspace GC-MS				
Chlorobenzene (monochlorobenzene)	g/m ³	< 0.0003 ± 0.00031	-	-
1,2-Dichlorobenzene	g/m ³	< 0.0003 ± 0.00031	1.5	No

Sample Type: Aqueous				
Sample Name:		Athenree North Bore - G00304 04-May-2021 10:10 am	Maximum Acceptable Value	Outside Limit
Lab Number:		2603083.6		
Halogenated Aromatics in VOC Water by Headspace GC-MS				
1,3-Dichlorobenzene	g/m ³	< 0.0003 ± 0.00031	-	-
1,4-Dichlorobenzene	g/m ³	< 0.0003 ± 0.00031	0.4	No
1,2,3-Trichlorobenzene	g/m ³	< 0.0003 ± 0.00029	-	-
1,2,4-Trichlorobenzene	g/m ³	< 0.0003 ± 0.00029	-	-
1,3,5-Trichlorobenzene	g/m ³	< 0.0003 ± 0.00031	-	-
Bromobenzene	g/m ³	< 0.0003 ± 0.00031	-	-
2-Chlorotoluene	g/m ³	< 0.0003 ± 0.00031	-	-
4-Chlorotoluene	g/m ³	< 0.0003 ± 0.00031	-	-
Monoaromatic Hydrocarbons in VOC Water by Headspace GC-MS				
n-Butylbenzene	g/m ³	< 0.0005 ± 0.00034	-	-
tert-Butylbenzene	g/m ³	< 0.0003 ± 0.00031	-	-
4-Isopropyltoluene (p-Cymene)	g/m ³	< 0.0005 ± 0.00034	-	-
Isopropylbenzene (Cumene)	g/m ³	< 0.0003 ± 0.00031	-	-
n-Propylbenzene	g/m ³	< 0.0005 ± 0.00034	-	-
sec-Butylbenzene	g/m ³	< 0.0003 ± 0.00031	-	-
Styrene	g/m ³	< 0.0005 ± 0.00034	0.03	No
1,2,4-Trimethylbenzene	g/m ³	< 0.0003 ± 0.00031	-	-
1,3,5-Trimethylbenzene	g/m ³	< 0.0003 ± 0.00031	-	-
Ketones in VOC Water by Headspace GC-MS				
Acetone	g/m ³	< 0.05 ± 0.034	-	-
2-Butanone (MEK)	g/m ³	< 0.05 ± 0.016	-	-
Methyl tert-butylether (MTBE)	g/m ³	< 0.0003 ± 0.00031	-	-
4-Methylpentan-2-one (MIBK)	g/m ³	< 0.010 ± 0.0045	-	-
Trihalomethanes in VOC Water by Headspace GC-MS				
Bromodichloromethane	g/m ³	< 0.0003 ± 0.00030	0.06	No
Bromoform (tribromomethane)	g/m ³	< 0.0005 ± 0.00034	0.1	No
Chloroform (Trichloromethane)	g/m ³	< 0.0003 ± 0.00030	0.4	No
Dibromochloromethane	g/m ³	< 0.0003 ± 0.00030	0.15	No
Other VOC in Water by Headspace GC-MS				
Carbon disulphide	g/m ³	< 0.0005 ± 0.00031	-	-
Naphthalene	g/m ³	< 0.0005 ± 0.00034	-	-

Sample Name:		Athenree South Bore - G00577 04-May-2021 10:25 am	Maximum Acceptable Value	Outside Limit
Lab Number:		2603083.7		
Individual Tests				
Turbidity	NTU	< 0.05 ± 0.034	-	-
Total Alkalinity	g/m ³ as CaCO ₃	70.6 ± 3.0	-	-
Carbonate	g/m ³ at 25°C	< 1.0 ± 0.054	-	-
Bicarbonate	g/m ³ at 25°C	85.7 ± 4.3	-	-
Free Carbon Dioxide	g/m ³ at 25°C	2.9 ± 1.4	-	-
Total Hardness	g/m ³ as CaCO ₃	38.2 ± 1.8	-	-
Total Suspended Solids	g/m ³	< 3 ± 2.1	-	-
Total Dissolved Solids (TDS)	g/m ³	198 ± 25	-	-
Dissolved Aluminium	g/m ³	< 0.003 ± 0.0021	-	-
Dissolved Antimony	g/m ³	< 0.0002 ± 0.00014	-	-
Dissolved Arsenic	g/m ³	0.00445 ± 0.00071	-	-
Dissolved Barium	g/m ³	< 0.005 ± 0.00025	-	-
Total Boron	g/m ³	0.0367 ± 0.0062	1.4	No
Dissolved Cadmium	g/m ³	< 0.00005 ± 0.000034	-	-
Total Calcium	g/m ³	7.42 ± 0.30	-	-
Dissolved Chromium	g/m ³	< 0.0005 ± 0.00034	-	-
Total Copper	g/m ³	< 0.00053 ± 0.00036	2	No
Total Iron	g/m ³	< 0.021 ± 0.014	-	-
Dissolved Lead	g/m ³	0.000183 ± 0.000068	-	-

Sample Type: Aqueous					
Sample Name:		Athenree South Bore - G00577 04-May-2021 10:25 am		Maximum Acceptable Value	Outside Limit
Lab Number:		2603083.7			
Individual Tests					
Total Magnesium	g/m ³	4.78 ± 0.39		-	-
Total Manganese	g/m ³	< 0.00053 ± 0.00036		0.4	No
Dissolved Mercury	g/m ³	< 0.00008 ± 0.000054		-	-
Dissolved Molybdenum	g/m ³	0.00070 ± 0.00018		-	-
Dissolved Nickel	g/m ³	< 0.0005 ± 0.00034		-	-
Dissolved Selenium	g/m ³	< 0.0010 ± 0.00067		-	-
Dissolved Silver	g/m ³	< 0.00010 ± 0.000067		-	-
Total Sodium	g/m ³	29.4 ± 1.8		-	-
Dissolved Tin	g/m ³	< 0.0005 ± 0.00034		-	-
Total Zinc	g/m ³	0.00235 ± 0.00076		-	-
Bromate	g/m ³	< 0.005 ± 0.0034		0.01	No
Chloride	g/m ³	18.1 ± 1.2		-	-
Fluoride	g/m ³	0.191 ± 0.047		1.5	No
Total Ammoniacal-N	g/m ³	< 0.010 ± 0.0067		-	-
Nitrite-N	g/m ³	< 0.002 ± 0.0014		0.06 0.91 (short term)	No
Nitrate-N	g/m ³	0.157 ± 0.019		11.3	No
Nitrate-N + Nitrite-N	g/m ³	0.157 ± 0.019		-	-
Reactive Silica	g/m ³ as SiO ₂	80.4 ± 1.7		-	-
Sulphate	g/m ³	3.41 ± 0.40		-	-
Non-Purgeable Organic Carbon (NPOC)	g/m ³	0.36 ± 0.21		-	-
Absorbance at 254 nm	AU cm ⁻¹	0.0053 ± 0.0021		-	-
Transmittance at 254 nm*	%T, 1 cm cell	98.8		-	-
Absorbance at 270 nm	AU cm ⁻¹	0.0048 ± 0.0021		-	-
Transmittance at 270 nm*	%T, 1 cm cell	98.9		-	-
Total Coliforms	cfu / 100mL	< 1 #1		-	-
Enterococci	cfu / 100mL	< 1 #1		-	-
Faecal Coliforms and E. coli profile					
Faecal Coliforms	cfu / 100mL	< 1 #1		-	-
Escherichia coli	cfu / 100mL	< 1 #1		< 1	No
Hazen Colour Profile					
Apparent Hazen Colour	Hazen units	< 10 ± 20		-	-
OrganoNitrogen & Phosphorus pesticides, trace, liq/liq GCMS					
Acetochlor	g/m ³	< 0.00004 ± 0.00042		-	-
Alachlor	g/m ³	< 0.00004 ± 0.00018		0.02	No
Atrazine	g/m ³	< 0.00004 ± 0.000024		0.002	No
Atrazine-desethyl	g/m ³	< 0.00004 ± 0.00041		-	-
Atrazine-desisopropyl	g/m ³	< 0.00008 ± 0.00018		-	-
Azaconazole	g/m ³	< 0.00002 ± 0.000071		-	-
Azinphos-methyl	g/m ³	< 0.00008 ± 0.00036		0.004	No
Benalaxyl	g/m ³	< 0.00002 ± 0.000094		-	-
Bitertanol	g/m ³	< 0.00008 ± 0.000048		-	-
Bromacil	g/m ³	< 0.00004 ± 0.000025		0.4	No
Bromopropylate	g/m ³	< 0.00004 ± 0.000022		-	-
Butachlor	g/m ³	< 0.00004 ± 0.000021		-	-
Captan	g/m ³	< 0.00008 ± 0.000060		-	-
Carbaryl	g/m ³	< 0.00004 ± 0.000021		-	-
Carbofenothion	g/m ³	< 0.00004 ± 0.000022		-	-
Carbofuran	g/m ³	< 0.00004 ± 0.000022		0.008	No
Chlorfluazuron	g/m ³	< 0.00004 ± 0.000032		-	-
Chlorothalonil	g/m ³	< 0.00004 ± 0.000022		-	-
Chlorpyrifos	g/m ³	< 0.00004 ± 0.000022		0.04	No
Chlorpyrifos-methyl	g/m ³	< 0.00004 ± 0.000022		-	-
Chlortoluron	g/m ³	< 0.00008 ± 0.000062		0.04	No
Cyanazine	g/m ³	< 0.00004 ± 0.000021		0.0007	No

Sample Type: Aqueous				
Sample Name:	Athenree South Bore - G00577 04-May-2021 10:25 am		Maximum Acceptable Value	Outside Limit
Lab Number:	2603083.7			
OrganoNitrogen & Phosphorus pesticides, trace, liq/liq GCMS				
Cyfluthrin	g/m ³	< 0.00004 ± 0.000027	-	-
Cyhalothrin	g/m ³	< 0.00004 ± 0.000022	-	-
Cypermethrin	g/m ³	< 0.00008 ± 0.000043	-	-
Deltamethrin (including Tralomethrin)	g/m ³	< 0.00006 ± 0.000027	-	-
Diazinon	g/m ³	< 0.00002 ± 0.0000083	-	-
Dichlofluanid	g/m ³	< 0.00004 ± 0.00018	-	-
Dichloran	g/m ³	< 0.0002 ± 0.000089	-	-
Dichlorvos	g/m ³	< 0.00008 ± 0.00018	-	-
Difenoconazole	g/m ³	< 0.00008 ± 0.000043	-	-
Dimethoate	g/m ³	< 0.00008 ± 0.000057	0.008	No
Diphenylamine	g/m ³	< 0.00008 ± 0.00018	-	-
Diuron	g/m ³	< 0.00004 ± 0.000023	0.02	No
Fenpropimorph	g/m ³	< 0.00004 ± 0.000022	-	-
Fluazifop-butyl	g/m ³	< 0.00004 ± 0.000022	-	-
Fluometuron	g/m ³	< 0.00004 ± 0.000026	-	-
Flusilazole	g/m ³	< 0.00004 ± 0.000028	-	-
Fluvalinate	g/m ³	< 0.00004 ± 0.000011	-	-
Furalaxyl	g/m ³	< 0.00002 ± 0.0000079	-	-
Haloxifop-methyl	g/m ³	< 0.00004 ± 0.000027	-	-
Hexaconazole	g/m ³	< 0.00004 ± 0.000060	-	-
Hexazinone	g/m ³	< 0.00002 ± 0.000017	0.4	No
IPBC (3-Iodo-2-propynyl-n-butylcarbamate)	g/m ³	< 0.0002 ± 0.00011	-	-
Kresoxim-methyl	g/m ³	< 0.00002 ± 0.000019	-	-
Linuron	g/m ³	< 0.00005 ± 0.000021	-	-
Malathion	g/m ³	< 0.00004 ± 0.000022	-	-
Metalaxyl	g/m ³	< 0.00004 ± 0.000023	0.1	No
Metolachlor	g/m ³	< 0.00004 ± 0.000021	0.01	No
Metribuzin	g/m ³	< 0.00004 ± 0.000027	0.07	No
Molinate	g/m ³	< 0.00008 ± 0.000030	0.007	No
Myclobutanil	g/m ³	< 0.00004 ± 0.000033	-	-
Naled	g/m ³	< 0.0002 ± 0.000056	-	-
Norflurazon	g/m ³	< 0.00008 ± 0.000028	-	-
Oxadiazon	g/m ³	< 0.00004 ± 0.000022	0.2	No
Oxyfluorfen	g/m ³	< 0.00002 ± 0.000019	-	-
Paclobutrazol	g/m ³	< 0.00004 ± 0.000023	-	-
Parathion-ethyl	g/m ³	< 0.00004 ± 0.000022	-	-
Parathion-methyl	g/m ³	< 0.00004 ± 0.000022	-	-
Pendimethalin	g/m ³	< 0.00004 ± 0.000051	0.02	No
Permethrin	g/m ³	< 0.00002 ± 0.000020	-	-
Pirimicarb	g/m ³	< 0.00004 ± 0.000015	-	-
Pirimiphos-methyl	g/m ³	< 0.00004 ± 0.000024	0.1	No
Prochloraz	g/m ³	< 0.0002 ± 0.000059	-	-
Procymidone	g/m ³	< 0.00004 ± 0.000021	0.7	No
Prometryn	g/m ³	< 0.00002 ± 0.000020	-	-
Propachlor	g/m ³	< 0.00004 ± 0.000024	-	-
Propanil	g/m ³	< 0.0002 ± 0.000056	-	-
Propazine	g/m ³	< 0.00002 ± 0.000020	0.07	No
Propiconazole	g/m ³	< 0.00004 ± 0.000033	-	-
Pyriproxyfen	g/m ³	< 0.00004 ± 0.000033	0.4	No
Quizalofop-ethyl	g/m ³	< 0.00004 ± 0.000022	-	-
Simazine	g/m ³	< 0.00004 ± 0.000013	0.002	No
Simetryn	g/m ³	< 0.00004 ± 0.000022	-	-
Sulfentrazone	g/m ³	< 0.0002 ± 0.000056	-	-
TCMTB [2-(thiocyanomethylthio)benzothiazole,Busan]	g/m ³	< 0.00008 ± 0.000032	-	-

Sample Type: Aqueous				
Sample Name:	Athenree South Bore - G00577 04-May-2021 10:25 am		Maximum Acceptable Value	Outside Limit
Lab Number:	2603083.7			
OrganoNitrogen & Phosphorus pesticides, trace, liq/liq GCMS				
Tebuconazole	g/m ³	< 0.00004 ± 0.000059	-	-
Terbacil	g/m ³	< 0.00004 ± 0.000032	0.04	No
Terbufos	g/m ³	< 0.00004 ± 0.000011	-	-
Terbumeton	g/m ³	< 0.00004 ± 0.000021	-	-
Terbuthylazine	g/m ³	< 0.00002 ± 0.0000079	0.008	No
Terbuthylazine-desethyl	g/m ³	< 0.00004 ± 0.000038	-	-
Terbutryn	g/m ³	< 0.00004 ± 0.000023	-	-
Thiabendazole	g/m ³	< 0.0002 ± 0.000063	0.4	No
Thiobencarb	g/m ³	< 0.00004 ± 0.000022	-	-
Tolyfluanid	g/m ³	< 0.00002 ± 0.000019	-	-
Triazophos	g/m ³	< 0.00004 ± 0.000032	-	-
Trifluralin	g/m ³	< 0.00004 ± 0.000027	0.03	No
Vinclozolin	g/m ³	< 0.00004 ± 0.000048	-	-
Hydrogen sulphide trace level profile*				
pH	pH Units	7.7 ± 0.2	-	-
Electrical Conductivity (EC)	mS/m	20.6 ± 0.5	-	-
Sample Temperature*	°C	20.0	-	-
Un-ionised hydrogen sulphide	g/m ³	< 0.002	-	-
Total Sulphide	g/m ³	< 0.002 ± 0.0014	-	-
Acid Herbicides Screen in Water by LCMSMS				
Acifluorfen	g/m ³	< 0.0004 ± 0.00021	-	-
Bentazone	g/m ³	< 0.0004 ± 0.00021	-	-
Bromoxynil	g/m ³	< 0.0004 ± 0.00021	-	-
Clopyralid	g/m ³	< 0.0004 ± 0.00021	-	-
2,4-Dichlorophenoxyacetic acid (24D)	g/m ³	< 0.0004 ± 0.00021	0.04	No
2,4-Dichlorophenoxybutyric acid (24DB)	g/m ³	< 0.0004 ± 0.00021	0.1	No
Dicamba	g/m ³	< 0.0004 ± 0.00021	-	-
Dichlorprop	g/m ³	< 0.0004 ± 0.00021	0.1	No
Fluazifop	g/m ³	< 0.0004 ± 0.00021	-	-
Fluroxypyr	g/m ³	< 0.0004 ± 0.00021	-	-
Haloxypop	g/m ³	< 0.0004 ± 0.00021	-	-
2-methyl-4-chlorophenoxyacetic acid (MCPA)	g/m ³	< 0.0004 ± 0.00021	0.002	No
2-methyl-4-chlorophenoxybutanoic acid (MCPB)	g/m ³	< 0.0004 ± 0.00021	-	-
Mecoprop	g/m ³	< 0.0004 ± 0.00021	0.01	No
Oryzalin	g/m ³	< 0.0006 ± 0.00023	0.4	No
2,3,4,6-Tetrachlorophenol (TCP)	g/m ³	< 0.0004 ± 0.00021	-	-
2,4,5-trichlorophenoxypropionic acid (245TP,Fenoprop, Silvex)	g/m ³	< 0.0004 ± 0.00021	0.01	No
2,4,5-Trichlorophenoxyacetic acid (245T)	g/m ³	< 0.0004 ± 0.00021	0.01	No
Pentachlorophenol (PCP)	g/m ³	< 0.0004 ± 0.00021	0.009	No
Picloram	g/m ³	< 0.0004 ± 0.00021	0.2	No
Quizalofop	g/m ³	< 0.0004 ± 0.00021	-	-
Triclopyr	g/m ³	< 0.0004 ± 0.00021	0.1	No
Multiresidue Extra Pesticides Trace in Water samples by Liq/liq				
Bendiocarb	g/m ³	< 0.00004 ± 0.000022	-	-
Benodanil	g/m ³	< 0.00008 ± 0.000039	-	-
Bifenthrin	g/m ³	< 0.00002 ± 0.0000079	-	-
Bromophos-ethyl	g/m ³	< 0.00004 ± 0.000022	-	-
Bupirimate	g/m ³	< 0.00004 ± 0.000021	-	-
Buprofezin	g/m ³	< 0.00004 ± 0.000021	-	-
Captafol	g/m ³	< 0.0002 ± 0.00014	-	-
Carbofenthiion	g/m ³	< 0.00004 ± 0.000022	-	-
Carboxin	g/m ³	< 0.00004 ± 0.000024	-	-

Sample Type: Aqueous

Sample Name:		Athenree South Bore - G00577 04-May-2021 10:25 am	Maximum Acceptable Value	Outside Limit
Lab Number:		2603083.7		
Multiresidue Extra Pesticides Trace in Water samples by Liq/liq				
Chlorfenvinphos	g/m ³	< 0.00004 ± 0.000022	-	-
Chlorpropham	g/m ³	< 0.00008 ± 0.000034	-	-
Chlozolinatate	g/m ³	< 0.00004 ± 0.000022	-	-
Coumaphos	g/m ³	< 0.00008 ± 0.000038	-	-
Cyproconazole	g/m ³	< 0.00004 ± 0.000022	-	-
Cyprodinil	g/m ³	< 0.00004 ± 0.000027	-	-
Demeton-S-methyl	g/m ³	< 0.00008 ± 0.00018	-	-
Dichlobenil	g/m ³	< 0.00004 ± 0.000022	-	-
Dichlofenthion	g/m ³	< 0.00004 ± 0.000022	-	-
Dicofol	g/m ³	< 0.0002 ± 0.00014	-	-
Dicrotophos	g/m ³	< 0.00004 ± 0.000022	-	-
Dinocap	g/m ³	< 0.0003 ± 0.00012	-	-
Disulfoton	g/m ³	< 0.00004 ± 0.000023	-	-
EPN	g/m ³	< 0.00004 ± 0.000026	-	-
Esfenvalerate	g/m ³	< 0.00004 ± 0.000022	-	-
Ethion	g/m ³	< 0.00004 ± 0.000021	-	-
Etrimfos	g/m ³	< 0.00004 ± 0.000022	-	-
Famphur	g/m ³	< 0.00004 ± 0.000021	-	-
Fenamiphos	g/m ³	< 0.00004 ± 0.000022	-	-
Fenarimol	g/m ³	< 0.00004 ± 0.000023	-	-
Fenitrothion	g/m ³	< 0.00004 ± 0.000022	-	-
Fenpropathrin	g/m ³	< 0.00004 ± 0.000022	-	-
Fensulfothion	g/m ³	< 0.00004 ± 0.000026	-	-
Fenthion	g/m ³	< 0.00004 ± 0.000024	-	-
Fenvalerate	g/m ³	< 0.00004 ± 0.000021	-	-
Folpet	g/m ³	< 0.00008 ± 0.000027	-	-
Hexythiazox	g/m ³	< 0.0002 ± 0.000071	-	-
Imazalil	g/m ³	< 0.0002 ± 0.000059	-	-
Indoxacarb	g/m ³	< 0.00004 ± 0.000022	-	-
Iodofenphos	g/m ³	< 0.00004 ± 0.000015	-	-
Isazophos	g/m ³	< 0.00004 ± 0.000025	-	-
Isofenphos	g/m ³	< 0.00002 ± 0.000018	-	-
Leptophos	g/m ³	< 0.00004 ± 0.000023	-	-
Methacrifos	g/m ³	< 0.00004 ± 0.000022	-	-
Methidathion	g/m ³	< 0.00004 ± 0.000022	-	-
Methiocarb	g/m ³	< 0.00004 ± 0.000033	-	-
Mevinphos	g/m ³	< 0.00008 ± 0.000040	-	-
Nitrofen	g/m ³	< 0.00008 ± 0.000034	-	-
Nitrothal-Isopropyl	g/m ³	< 0.00004 ± 0.000023	-	-
Oxychlorane	g/m ³	< 0.00002 ± 0.000033	-	-
Penconazole	g/m ³	< 0.00004 ± 0.000022	-	-
Phorate	g/m ³	< 0.00008 ± 0.000028	-	-
Phosmet	g/m ³	< 0.00004 ± 0.000021	-	-
Phosphamidon	g/m ³	< 0.00004 ± 0.000057	-	-
Propetamphos	g/m ³	< 0.00006 ± 0.000027	-	-
Propham	g/m ³	< 0.00004 ± 0.000023	-	-
Prothiofos	g/m ³	< 0.00004 ± 0.000022	-	-
Pyrazophos	g/m ³	< 0.00004 ± 0.000022	-	-
Pyrifenox	g/m ³	< 0.00004 ± 0.000052	-	-
Pyrimethanil	g/m ³	< 0.00004 ± 0.000021	-	-
Quintozene	g/m ³	< 0.00008 ± 0.000026	-	-
Sulfotep	g/m ³	< 0.00004 ± 0.000022	-	-
Tebufenpyrad	g/m ³	< 0.00002 ± 0.000019	-	-
Tetrachlorvinphos	g/m ³	< 0.00004 ± 0.000021	-	-
Thiometon	g/m ³	< 0.00008 ± 0.000032	-	-

Sample Type: Aqueous				
Sample Name:	Athenree South Bore - G00577 04-May-2021 10:25 am		Maximum Acceptable Value	Outside Limit
Lab Number:	2603083.7			
Multiresidue Extra Pesticides Trace in Water samples by Liq/liq				
Triadimefon	g/m ³	< 0.00004 ± 0.000021	-	-
Organochlorine Pesticides Trace in water, By Liq/Liq				
Aldrin	g/m ³	< 0.000005 ± 0.0000034	-	-
alpha-BHC	g/m ³	< 0.000010 ± 0.0000067	-	-
beta-BHC	g/m ³	< 0.000010 ± 0.0000067	-	-
delta-BHC	g/m ³	< 0.000010 ± 0.0000067	-	-
gamma-BHC (Lindane)	g/m ³	< 0.000010 ± 0.0000067	0.002	No
cis-Chlordane	g/m ³	< 0.000005 ± 0.0000034	-	-
trans-Chlordane	g/m ³	< 0.000005 ± 0.0000034	-	-
2,4'-DDD	g/m ³	< 0.000010 ± 0.0000067	-	-
4,4'-DDD	g/m ³	< 0.000010 ± 0.0000067	-	-
2,4'-DDE	g/m ³	< 0.000010 ± 0.0000067	-	-
4,4'-DDE	g/m ³	< 0.000010 ± 0.0000067	-	-
2,4'-DDT	g/m ³	< 0.000010 ± 0.0000067	-	-
4,4'-DDT	g/m ³	< 0.000010 ± 0.0000067	-	-
Total DDT Isomers	g/m ³	< 0.00006	0.001	No
Dieldrin	g/m ³	< 0.000005 ± 0.0000034	-	-
Endosulfan I	g/m ³	< 0.000010 ± 0.0000067	-	-
Endosulfan II	g/m ³	< 0.000010 ± 0.0000067	-	-
Endosulfan sulphate	g/m ³	< 0.000010 ± 0.0000067	-	-
Endrin	g/m ³	< 0.000005 ± 0.0000034	0.001	No
Endrin aldehyde	g/m ³	< 0.000005 ± 0.0000034	-	-
Endrin ketone	g/m ³	< 0.000010 ± 0.0000067	-	-
Heptachlor	g/m ³	< 0.000005 ± 0.0000034	-	-
Heptachlor epoxide	g/m ³	< 0.000005 ± 0.0000034	-	-
Hexachlorobenzene	g/m ³	< 0.00004 ± 0.000027	-	-
Methoxychlor	g/m ³	< 0.000005 ± 0.0000034	0.02	No
Polycyclic Aromatic Hydrocarbons Trace in Water, By Liq/Liq				
Acenaphthene	g/m ³	< 0.000005 ± 0.0000034	-	-
Acenaphthylene	g/m ³	< 0.000005 ± 0.0000034	-	-
Anthracene	g/m ³	< 0.000005 ± 0.0000034	-	-
Benzo[a]anthracene	g/m ³	< 0.000005 ± 0.0000034	-	-
Benzo[a]pyrene (BAP)	g/m ³	< 0.000005 ± 0.0000034	0.0007	No
Benzo[b]fluoranthene + Benzo[j]fluoranthene	g/m ³	< 0.000005 ± 0.0000034	-	-
Benzo[g,h,i]perylene	g/m ³	< 0.000005 ± 0.0000034	-	-
Benzo[k]fluoranthene	g/m ³	< 0.000005 ± 0.0000034	-	-
Chrysene	g/m ³	< 0.000005 ± 0.0000034	-	-
Dibenzo[a,h]anthracene	g/m ³	< 0.000005 ± 0.0000034	-	-
Fluoranthene	g/m ³	< 0.000005 ± 0.0000034	-	-
Fluorene	g/m ³	< 0.000005 ± 0.0000055	-	-
Indeno(1,2,3-c,d)pyrene	g/m ³	< 0.000005 ± 0.0000034	-	-
Naphthalene	g/m ³	0.000032 ± 0.000022	-	-
Phenanthrene	g/m ³	< 0.000005 ± 0.000013	-	-
Pyrene	g/m ³	< 0.000005 ± 0.0000057	-	-
BTEX in VOC Water by Headspace GC-MS				
Benzene	g/m ³	< 0.0003 ± 0.00032	0.01	No
Ethylbenzene	g/m ³	< 0.0005 ± 0.00034	0.3	No
Toluene	g/m ³	< 0.0003 ± 0.00060	0.8	No
m&p-Xylene	g/m ³	< 0.0005 ± 0.00034	-	-
o-Xylene	g/m ³	< 0.0003 ± 0.00031	-	-
Halogenated Aliphatics in VOC Water by Headspace GC-MS				
Bromomethane (Methyl Bromide)	g/m ³	< 0.0003 ± 0.00031	-	-
Carbon tetrachloride	g/m ³	< 0.0003 ± 0.00030	0.005	No
Chloroethane	g/m ³	< 0.0003 ± 0.00031	-	-

Sample Type: Aqueous				
Sample Name:	Athenree South Bore - G00577 04-May-2021 10:25 am		Maximum Acceptable Value	Outside Limit
Lab Number:	2603083.7			
Halogenated Aliphatics in VOC Water by Headspace GC-MS				
Chloromethane	g/m ³	< 0.0003 ± 0.00031	-	-
1,2-Dibromo-3-chloropropane	g/m ³	< 0.0003 ± 0.00026	0.001	No
1,2-Dibromoethane (ethylene dibromide, EDB)	g/m ³	< 0.0003 ± 0.00025	0.0004	No
Dibromomethane	g/m ³	< 0.0003 ± 0.00031	-	-
Dichlorodifluoromethane	g/m ³	< 0.0003 ± 0.00030	-	-
1,1-Dichloroethane	g/m ³	< 0.0003 ± 0.00031	-	-
1,2-Dichloroethane	g/m ³	< 0.0003 ± 0.00030	0.03	No
1,1-Dichloroethene	g/m ³	< 0.0003 ± 0.00032	-	-
cis-1,2-Dichloroethene	g/m ³	< 0.0003 ± 0.00031	-	-
trans-1,2-Dichloroethene	g/m ³	< 0.0003 ± 0.00030	-	-
Dichloromethane (methylene chloride)	g/m ³	< 0.010 ± 0.0067	0.02	No
1,2-Dichloropropane	g/m ³	< 0.0003 ± 0.00031	0.05	No
1,3-Dichloropropane	g/m ³	< 0.0003 ± 0.00031	-	-
1,1-Dichloropropene	g/m ³	< 0.0003 ± 0.00031	-	-
cis-1,3-Dichloropropene	g/m ³	< 0.0005 ± 0.00034	-	-
trans-1,3-Dichloropropene	g/m ³	< 0.0005 ± 0.00034	-	-
Hexachlorobutadiene	g/m ³	< 0.0003 ± 0.00030	0.0007	No
1,1,1,2-Tetrachloroethane	g/m ³	< 0.0003 ± 0.00031	-	-
1,1,2,2-Tetrachloroethane	g/m ³	< 0.0003 ± 0.00031	-	-
Tetrachloroethene (tetrachloroethylene)	g/m ³	< 0.0003 ± 0.00032	0.05	No
1,1,1-Trichloroethane	g/m ³	< 0.0003 ± 0.00030	-	-
1,1,2-Trichloroethane	g/m ³	< 0.0003 ± 0.00031	-	-
Trichloroethene (trichloroethylene)	g/m ³	< 0.0003 ± 0.00031	0.02	No
Trichlorofluoromethane	g/m ³	< 0.0003 ± 0.00032	-	-
1,2,3-Trichloropropane	g/m ³	< 0.0003 ± 0.00031	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	g/m ³	< 0.0003 ± 0.00027	-	-
Vinyl chloride	g/m ³	< 0.0003 ± 0.00030	0.0003	No
Halogenated Aromatics in VOC Water by Headspace GC-MS				
Chlorobenzene (monochlorobenzene)	g/m ³	< 0.0003 ± 0.00031	-	-
1,2-Dichlorobenzene	g/m ³	< 0.0003 ± 0.00031	1.5	No
1,3-Dichlorobenzene	g/m ³	< 0.0003 ± 0.00031	-	-
1,4-Dichlorobenzene	g/m ³	< 0.0003 ± 0.00031	0.4	No
1,2,3-Trichlorobenzene	g/m ³	< 0.0003 ± 0.00029	-	-
1,2,4-Trichlorobenzene	g/m ³	< 0.0003 ± 0.00029	-	-
1,3,5-Trichlorobenzene	g/m ³	< 0.0003 ± 0.00031	-	-
Bromobenzene	g/m ³	< 0.0003 ± 0.00031	-	-
2-Chlorotoluene	g/m ³	< 0.0003 ± 0.00031	-	-
4-Chlorotoluene	g/m ³	< 0.0003 ± 0.00031	-	-
Monoaromatic Hydrocarbons in VOC Water by Headspace GC-MS				
n-Butylbenzene	g/m ³	< 0.0005 ± 0.00034	-	-
tert-Butylbenzene	g/m ³	< 0.0003 ± 0.00031	-	-
4-Isopropyltoluene (p-Cymene)	g/m ³	< 0.0005 ± 0.00034	-	-
Isopropylbenzene (Cumene)	g/m ³	< 0.0003 ± 0.00031	-	-
n-Propylbenzene	g/m ³	< 0.0005 ± 0.00034	-	-
sec-Butylbenzene	g/m ³	< 0.0003 ± 0.00031	-	-
Styrene	g/m ³	< 0.0005 ± 0.00034	0.03	No
1,2,4-Trimethylbenzene	g/m ³	< 0.0003 ± 0.00031	-	-
1,3,5-Trimethylbenzene	g/m ³	< 0.0003 ± 0.00031	-	-
Ketones in VOC Water by Headspace GC-MS				
Acetone	g/m ³	< 0.05 ± 0.034	-	-
2-Butanone (MEK)	g/m ³	< 0.05 ± 0.016	-	-
Methyl tert-butylether (MTBE)	g/m ³	< 0.0003 ± 0.00031	-	-
4-Methylpentan-2-one (MIBK)	g/m ³	< 0.010 ± 0.0045	-	-
Trihalomethanes in VOC Water by Headspace GC-MS				

Sample Type: Aqueous				
Sample Name:		Athenree South Bore - G00577 04-May-2021 10:25 am	Maximum Acceptable Value	Outside Limit
Lab Number:		2603083.7		
Trihalomethanes in VOC Water by Headspace GC-MS				
Bromodichloromethane	g/m ³	< 0.0003 ± 0.00030	0.06	No
Bromoform (tribromomethane)	g/m ³	< 0.0005 ± 0.00034	0.1	No
Chloroform (Trichloromethane)	g/m ³	< 0.0003 ± 0.00030	0.4	No
Dibromochloromethane	g/m ³	< 0.0003 ± 0.00030	0.15	No
Other VOC in Water by Headspace GC-MS				
Carbon disulphide	g/m ³	< 0.0005 ± 0.0031	-	-
Naphthalene	g/m ³	< 0.0005 ± 0.00034	-	-

The Maximum Acceptable Values (MAV) are taken from the publication 'Drinking-water Standards for New Zealand 2005 (Revised 2018)', Ministry of Health. Copies of this publication are available from:
<https://www.health.govt.nz/publication/drinking-water-standards-new-zealand-2005-revised-2018>

The Maximum Acceptable Values (MAVs) have been defined by the Ministry of Health for parameters of health significance and should not be exceeded. The 'Drinking-water Standards for New Zealand' also contains Guideline Values which are the limits for aesthetic determinands that, if exceeded, may render the water unattractive to consumers. This report compares the results obtained with the Maximum Acceptable Values only.

Under Section 69ZZ (2) of the Health Act (1965), the laboratory is required to report the results of any analysis or test carried out (for the purposes of testing for compliance with the New Zealand Drinking Water Standards 2005 (Revised 2018)) that indicates any non-compliance (transgression) with the Maximum Acceptable Values (MAVs) to the Drinking Water Assessor.

The reported uncertainty is an expanded uncertainty with a level of confidence of approximately 95 percent (i.e. two standard deviations, calculated using a coverage factor of 2). Reported uncertainties are calculated from the performance of typical matrices, and do not include variation due to sampling. For further information on uncertainty of measurement at Hill Laboratories, refer to the technical note on our website:
http://www.hill-laboratories.com/files/Intro_To_UOM.pdf, or contact the laboratory.

Note that the units g/m³ are the same as mg/L and ppm.

Analyst's Comments
#1 Statistically estimated count based on the theoretical countable range for the stated method. Please interpret this result with caution as the sample was > 10 °C on receipt at the lab. The sample temperature is recommended by the laboratory's reference methods to be less than 10 °C on receipt at the laboratory (but not frozen). However, it is acknowledged that samples that are transported quickly to the laboratory after sampling, may not have been cooled to this temperature.

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 simple 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. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Laboratories, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Aqueous			
Test	Method Description	Default Detection Limit	Sample No
Individual Tests			
Filtration, Glass Fibre	Sample filtration through glass fibre filter.	-	1-7
Filtration, Unpreserved	Sample filtration through 0.45µm membrane filter.	-	1-7
Total Digestion	Nitric acid digestion. APHA 3030 E (modified) 23 rd ed. 2017.	-	1-7
Turbidity	Analysis by Turbidity meter. APHA 2130 B 23 rd ed. 2017 (modified).	0.05 NTU	1-7
pH	pH meter. APHA 4500-H ⁺ B 23 rd ed. 2017. Note: It is not possible to achieve the APHA Maximum Storage Recommendation for this test (15 min) when samples are analysed upon receipt at the laboratory, and not in the field. Samples and Standards are analysed at an equivalent laboratory temperature (typically 18 to 22 °C). Temperature compensation is used.	0.1 pH Units	1-7
Total Alkalinity	Titration to pH 4.5 (M-alkalinity), autotitrator. APHA 2320 B (modified for Alkalinity <20) 23 rd ed. 2017.	1.0 g/m ³ as CaCO ₃	1-7
Carbonate	Calculation: from alkalinity and pH, valid where TDS is not >500 mg/L and alkalinity is almost entirely due to hydroxides, carbonates or bicarbonates. APHA 4500-CO ₂ D 23 rd ed. 2017.	1.0 g/m ³ at 25°C	1-7
Bicarbonate	Calculation: from alkalinity and pH, valid where TDS is not >500 mg/L and alkalinity is almost entirely due to hydroxides, carbonates or bicarbonates. APHA 4500-CO ₂ D 23 rd ed. 2017.	1.0 g/m ³ at 25°C	1-7

Sample Type: Aqueous			
Test	Method Description	Default Detection Limit	Sample No
Free Carbon Dioxide	Calculation: from alkalinity and pH, valid where TDS is not >500 mg/L and alkalinity is almost entirely due to hydroxides, carbonates or bicarbonates. APHA 4500-CO ₂ D 23 rd ed. 2017.	1.0 g/m ³ at 25°C	1-7
Total Hardness	Calculation from Calcium and Magnesium. APHA 2340 B 23 rd ed. 2017.	1.0 g/m ³ as CaCO ₃	1-7
Electrical Conductivity (EC)	Conductivity meter, 25°C. APHA 2510 B 23 rd ed. 2017.	0.1 mS/m	1-7
Total Suspended Solids	Filtration using Whatman 934 AH, Advantec GC-50 or equivalent filters (nominal pore size 1.2 - 1.5µm), gravimetric determination. APHA 2540 D (modified) 23 rd ed. 2017.	3 g/m ³	1-7
Total Dissolved Solids (TDS)	Filtration through GF/C (1.2 µm), gravimetric. APHA 2540 C (modified; drying temperature of 103 - 105°C used rather than 180 ± 2°C) 23 rd ed. 2017.	10 g/m ³	1-7
Sample Temperature*	A nominal sample temperature of 20°C has been assumed by the laboratory.	0.1 °C	1-7
Filtration for dissolved metals analysis	Sample filtration through 0.45µm membrane filter and preservation with nitric acid. APHA 3030 B 23 rd ed. 2017.	-	1-7
Dissolved Aluminium	Filtered sample, ICP-MS, trace level. APHA 3125 B 23 rd ed. 2017.	0.003 g/m ³	1-7
Dissolved Antimony	Filtered sample, ICP-MS, trace level. APHA 3125 B 23 rd ed. 2017.	0.0002 g/m ³	1-7
Dissolved Arsenic	Filtered sample, ICP-MS, trace level. APHA 3125 B 23 rd ed. 2017.	0.0010 g/m ³	1-7
Dissolved Barium	Filtered sample, ICP-MS, trace level. APHA 3125 B 23 rd ed. 2017.	0.005 g/m ³	1-7
Total Boron	Nitric acid digestion, ICP-MS, trace level. APHA 3125 B 23 rd ed. 2017.	0.0053 g/m ³	1-7
Dissolved Cadmium	Filtered sample, ICP-MS, trace level. APHA 3125 B 23 rd ed. 2017.	0.00005 g/m ³	1-7
Total Calcium	Nitric acid digestion, ICP-MS, trace level. APHA 3125 B 23 rd ed. 2017.	0.053 g/m ³	1-7
Dissolved Chromium	Filtered sample, ICP-MS, trace level. APHA 3125 B 23 rd ed. 2017.	0.0005 g/m ³	1-7
Total Copper	Nitric acid digestion, ICP-MS, trace level. APHA 3125 B 23 rd ed. 2017 / US EPA 200.8.	0.00053 g/m ³	1-7
Total Iron	Nitric acid digestion, ICP-MS, trace level. APHA 3125 B 23 rd ed. 2017.	0.021 g/m ³	1-7
Dissolved Lead	Filtered sample, ICP-MS, trace level. APHA 3125 B 23 rd ed. 2017.	0.00010 g/m ³	1-7
Total Magnesium	Nitric acid digestion, ICP-MS, trace level. APHA 3125 B 23 rd ed. 2017.	0.021 g/m ³	1-7
Total Manganese	Nitric acid digestion, ICP-MS, trace level. APHA 3125 B 23 rd ed. 2017 / US EPA 200.8.	0.00053 g/m ³	1-7
Dissolved Mercury	0.45µm filtration, bromine oxidation followed by atomic fluorescence. US EPA Method 245.7, Feb 2005.	0.00008 g/m ³	1-7
Dissolved Molybdenum	Filtered sample, ICP-MS, trace level. APHA 3125 B 23 rd ed. 2017.	0.0002 g/m ³	1-7
Dissolved Nickel	Filtered sample, ICP-MS, trace level. APHA 3125 B 23 rd ed. 2017.	0.0005 g/m ³	1-7
Dissolved Selenium	Filtered sample, ICP-MS, trace level. APHA 3125 B 23 rd ed. 2017.	0.0010 g/m ³	1-7
Dissolved Silver	Filtered sample, ICP-MS, trace level. APHA 3125 B 23 rd ed. 2017.	0.00010 g/m ³	1-7
Total Sodium	Nitric acid digestion, ICP-MS, trace level. APHA 3125 B 23 rd ed. 2017.	0.021 g/m ³	1-7
Dissolved Tin	Filtered sample, ICP-MS, trace level. APHA 3125 B 23 rd ed. 2017.	0.0005 g/m ³	1-7
Total Zinc	Nitric acid digestion, ICP-MS, trace level. APHA 3125 B 23 rd ed. 2017 / US EPA 200.8.	0.0011 g/m ³	1-7
Bromate	Sample analysed as received, filtered if required. Ion Chromatography. US EPA Method 300.1 Part B (modified).	0.005 g/m ³	1-7
Chloride	Filtered sample. Ion Chromatography. APHA 4110 B (modified) 23 rd ed. 2017.	0.5 g/m ³	1-7
Fluoride	Direct measurement, ion selective electrode. APHA 4500-F ⁻ C 23 rd ed. 2017.	0.05 g/m ³	1-7
Total Ammoniacal-N	Phenol/hypochlorite colourimetry. Flow injection analyser. (NH ₄ -N = NH ₄ ⁺ -N + NH ₃ -N). APHA 4500-NH ₃ H (modified) 23 rd ed. 2017.	0.010 g/m ³	1-7
Nitrite-N	Automated Azo dye colorimetry, Flow injection analyser. APHA 4500-NO ₂ ⁻ I (modified) 23 rd ed. 2017.	0.002 g/m ³	1-7

Sample Type: Aqueous			
Test	Method Description	Default Detection Limit	Sample No
Nitrate-N	Calculation: (Nitrate-N + Nitrite-N) - NO ₂ N. In-House.	0.0010 g/m ³	1-7
Nitrate-N + Nitrite-N	Total oxidised nitrogen. Automated cadmium reduction, flow injection analyser. APHA 4500-NO ₃ -1 (modified) 23 rd ed. 2017.	0.002 g/m ³	1-7
Reactive Silica	Filtered sample. Heteropoly blue colorimetry. Flow Injection Analyser. APHA 4500-SiO ₂ F (modified) 23 rd ed. 2017.	0.10 g/m ³ as SiO ₂	1-7
Un-ionised hydrogen sulphide	Calculation from Total Sulphide, Electrical Conductivity, pH and Temperature*. *Note: For accurate calculation of the un-ionised Hydrogen Sulphide the sample temperature should be taken using a calibrated thermometer at the time of sampling and recorded on the paperwork submitted with the sample. If a sample temperature is not supplied, a nominal temperature of 20°C will show in the results table above and be used in the calculation. In this case, please interpret the un-ionised Hydrogen Sulphide result with caution. APHA 4500-S ²⁻ H (modified) 23 rd ed. 2017.	0.002 g/m ³	1-7
Total Sulphide Trace	In-line distillation, segmented flow colorimetry. APHA 4500-S ²⁻ E (modified) 23 rd ed. 2017.	0.002 g/m ³	1-7
Sulphate	Filtered sample. Ion Chromatography. APHA 4110 B (modified) 23 rd ed. 2017.	0.5 g/m ³	1-7
Non-Purgeable Organic Carbon (NPOC)	Acidification, purging to remove inorganic C, super-critical persulphate oxidation at 375°C, IR detection. APHA 5310 C (modified) 23 rd ed. 2017.	0.3 g/m ³	1-7
Absorbance at 254 nm	Filtered sample. Spectrophotometry, 1cm cell. APHA 5910 B 23 rd ed. 2017.	0.002 AU cm ⁻¹	1-7
Transmittance at 254 nm*	Calculation from Absorbance at the specified wavelength.	0.5 %T, 1 cm cell	1-7
Absorbance at 270 nm	Filtered sample. Spectrophotometry, 1cm cell. APHA 5910 B 23 rd ed. 2017.	0.002 AU cm ⁻¹	1-7
Transmittance at 270 nm*	Calculation from Absorbance at the specified wavelength.	0.5 %T, 1 cm cell	1-7
Total Coliforms	Membrane Filtration, Count on mEndo Les agar, Incubation at 35°C for 22-24 hours, Confirmation. APHA 9222 B 23 rd ed. 2017.	1 cfu / 100mL	1-7
Enterococci	Membrane filtration, Count on mE agar, Incubated at 41°C for 48 hours, Confirmation. APHA 9230 C (modified) 23 rd ed. 2017.	1 cfu / 100mL	1-7
Acid Herbicides Screen in Water by LCMSMS	LC-MS/MS analysis. In-house.	0.0003 - 0.0006 g/m ³	1-7
Multiresidue Pesticides Trace in Water by Liq/liq GCMS	Liquid / liquid extraction, GC-ECD and GC-MS analysis. In-house based on US EPA 8081 and US EPA 8270.	-	1-7
Polycyclic Aromatic Hydrocarbons Trace in Water, By Liq/Liq	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.000005 g/m ³	1-7
Volatile Organic Compounds Trace in Water by Headspace GC-MS	Headspace GC-MS analysis. In-house based on US EPA 8260 and 5021.	0.0003 - 0.05 g/m ³	1-7
Faecal Coliforms and E. coli profile			
Faecal Coliforms	Membrane Filtration, Count on mFC agar, Incubated at 44.5°C for 22 hours, Confirmation. APHA 9222 D 23 rd ed. 2017.	1 cfu / 100mL	1-7
Escherichia coli	Membrane filtration, Count on mFC agar, Incubated at 44.5°C for 22 hours, MUG Confirmation. APHA 9222 I 23 rd ed. 2017.	1 cfu / 100mL	1-7
Hazen Colour Profile			
Apparent Hazen Colour	Determined on original sample without filtration or centrifugation, determination by Lovibond colorimeter. Note: Sample pH was verified at the time of analysis. APHA 2120 B (modified) 23 rd ed. 2017.	10 Hazen units	1-7
Multiresidue Extra Pesticides Trace in Water samples by Liq/liq			
Bendiocarb	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-7
Benodanil	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00008 g/m ³	1-7
Bifenthrin	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00002 g/m ³	1-7
Bromophos-ethyl	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-7
Bupirimate	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-7
Buprofezin	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-7
Captafol	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.0002 g/m ³	1-7

Sample Type: Aqueous			
Test	Method Description	Default Detection Limit	Sample No
Carboxin	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-7
Chlorfenvinphos	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-7
Chlorpropham	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00008 g/m ³	1-7
Chlozolinate	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-7
Coumaphos	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00008 g/m ³	1-7
Cyproconazole	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-7
Cyprodinil	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-7
Demeton-S-methyl	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00008 g/m ³	1-7
Dichlobenil	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-7
Dichlofenthion	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-7
Dicofol	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.0002 g/m ³	1-7
Dicrotophos	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-7
Dinocap	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.0003 g/m ³	1-7
Disulfoton	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-7
EPN	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-7
Esfenvalerate	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-7
Ethion	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-7
Etrimfos	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-7
Famphur	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-7
Fenamiphos	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-7
Fenarimol	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-7
Fenitrothion	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-7
Fenpropathrin	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-7
Fensulfothion	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-7
Fenthion	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-7
Fenvalerate	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-7
Folpet	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00008 g/m ³	1-7
Hexythiazox	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.0002 g/m ³	1-7
Imazalil	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.0002 g/m ³	1-7
Indoxacarb	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-7
Iodofenphos	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-7
Isazophos	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-7
Isofenphos	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00002 g/m ³	1-7
Leptophos	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-7

Sample Type: Aqueous			
Test	Method Description	Default Detection Limit	Sample No
Methacrifos	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-7
Methidathion	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-7
Methiocarb	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-7
Mevinphos	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00008 g/m ³	1-7
Nitrofen	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00008 g/m ³	1-7
Nitrothal-isopropyl	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-7
Oxychlorodane	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00002 g/m ³	1-7
Penconazole	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-7
Phorate	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00008 g/m ³	1-7
Phosmet	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-7
Phosphamidon	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-7
Propetamphos	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00006 g/m ³	1-7
Propham	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-7
Prothiofos	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-7
Pyrazophos	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-7
Pyrifenox	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-7
Pyrimethanil	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-7
Quintozene	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00008 g/m ³	1-7
Sulfotep	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-7
Tebufenpyrad	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00002 g/m ³	1-7
Tetrachlorvinphos	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-7
Thiometon	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00008 g/m ³	1-7
Triadimefon	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-7

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

Testing was completed between 05-May-2021 and 19-May-2021. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Kim Harrison MSc
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