

Test	RP01	RP02	RP04	RP05	RP06	RP07	RP09	GW Source	Surface Water		Units	Atrisksoil WSV	WHO DWS	Private Water Supply Regs NI 2017	UK DWS	Freshwater EQS AA	Freshwater EQS Max	UK Salmonid / Cyprinid Waters
Ammonia as N	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11		mg/l							
Sulphate	16	9.87	8.91	9.67	7.99	6.92	5.86	15.7	10.2		mg/l			250	250	400		
pH	6.85	7.24	8.56	8.33	8.13	6.97	6.81	6.94	7.44		ph units							6 to 9
Chloride	18.1	8.05	7.71	8.08	8.09	5.86	<0.35	6.41	6.23		mg/l			250	250	250		
Orthophosphate	<0.07	0.45	0.18	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07		mg/l							
Alkalinity	140	159	111	168	140	120	<5	126	113									
COD	<25	<25	33	<25	<25	<25	<25	<25	<25									
Ammoniacal Nitrogen as NH4	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3		mg/l			0.5				
Cyanide, Total	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		ug/l				50	1	5	
Nitrate as NO3	7.26	10.5	1.04	4.69	2.33	3.46	<0.3	4.3	2.14		mg/l		50		50			
Sulphide	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/l							
Sulphur, Free	<0.0545	<0.06	<0.0545	<0.05	<0.06	<0.0545	<0.0545	<0.05	<0.0545		n/a							
Arsenic (diss.filt)	0.164	0.205	2.27	1.09	2.3	0.135	<0.12	0.221	0.273		ug/l		10	10	10	50		
Cadmium (diss.filt)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		ug/l		3	5	5	0.08	0.45	
Chromium (diss.filt)	2.21	2.67	0.897	1.83	1.58	1.32	0.258	1.75	1.48		ug/l		50	50	50	4.7	32	
Chromium, Hexavalent	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		ug/l					3.4		
Copper (diss.filt)	0.851	1.08	1.59	0.858	0.979	<0.85	<0.85	66.9	<0.85		ug/l		2000	2000	2000	1		
Lead (diss.filt)	0.041	0.021	0.052	0.034	<0.02	0.199	0.024	0.285	0.021		ug/l		10	10	25	1.2	14	
Magnesium (diss.filt)	12.8	10.5	1.71	8.26	3.07	7.75	<0.036	9.75	5.47		mg/l				50			
Mercury (diss.filt)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		ug/l	428	6	1	1			0.07
Nickel (diss.filt)	0.536	0.511	1.3	0.431	0.402	0.364	<0.15	0.443	0.587		ug/l		70	20	20	4	34	
Selenium (diss.filt)	<0.39	<0.39	0.863	0.729	5.39	0.445	<0.39	0.582	0.409		ug/l		40	10	10			
Sodium (diss.filt)	11.2	13.5	41.1	20.1	31.5	16.2	<0.076	19.5	18.8		mg/l		50	200	200			
Zinc (diss.filt)	<0.41	0.673	<0.41	<0.41	1.32	1.62	<0.41	15.1	2.82		ug/l					10.9		
Calcium (tot.unfilt)	49.5	59.7	13.9	55.5	43.1	30.8	<0.057	39.1	33.9		mg/l							
Phenols, Total Detected monohydric	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016		ug/l					7.7	46	
Mineral oil >C10 C40 (aq)	<10	<10	<10	<10	<10	<10	<10	<10	<10		ug/l							
Aliphatics >C10-C12	<10	<10	<10	<10	<10	<10	<10	<10	<10		ug/l	2230	300					
Aliphatics >C12-C16 (aq)	<10	<10	15	<10	<10	<10	<10	<10	<10		ug/l	no wsv	300					
Aliphatics >C16-C21 (aq)	<10	<10	55	<10	<10	<10	<10	<10	<10		ug/l		300* (no guideline value C8-C16 used)					
Aliphatics >C21-C35 (aq)	<10	<10	135	<10	<10	<10	<10	<10	<10		ug/l		300* (no guideline value C8-C16 used)					
Aliphatics >C5-C6	<10	<10	<10	<10	<10	<10	<10	<10	<10		ug/l	198000	15000					
Aliphatics >C6-C8	<10	<10	<10	<10	<10	<10	<10	<10	<10		ug/l	144000	15000					
Aliphatics >C8-C10	<10	<10	<10	<10	<10	<10	<10	<10	<10		ug/l	2900	300					
Aromatics >EC10-EC12	<10	<10	<10	<10	<10	<10	<10	<10	<10		ug/l	380000	90					
Aromatics >EC12-EC16 (aq)	<10	<10	<10	<10	<10	<10	<10	<10	<10		ug/l	no wsv	90					
Aromatics >EC16-EC21 (aq)	<10	<10	<10	<10	<10	<10	<10	<10	<10		ug/l		90					
Aromatics >EC21-EC35 (aq)	<10	<10	<10	<10	<10	<10	<10	<10	<10		ug/l		90					
Aromatics >EC5-EC7	<10	<10	<10	<10	<10	<10	<10	<10	<10		ug/l	8460						
Aromatics >EC7-EC8	<10	<10	<10	<10	<10	<10	<10	<10	<10		ug/l	9090000	***10 (benzene proxy)					
Aromatics >EC8-EC10	<10	<10	<10	<10	<10	<10	<10	<10	<10		ug/l	96500	**300 (ethylbenzene proxy)					
Benzene	<7	<7	<7	<7	<7	<7	<7	<7	<7		ug/l	8460	10		1	10	50	
Ethylbenzene	<5	<5	<5	<5	<5	<5	<5	<5	<5		ug/l	1250000	300					
GRO >C5-C12	<50	<50	<50	<50	<50	<50	<50	<50	<50									
GRO Surrogate %	105	108	110	107	107	107	107	107	103									
m,p-Xylene	<8	<8	<8	<8	<8	<8	<8	<8	<8		ug/l	413000/432000	500			30		
Methyl tertiary butyl ether	<3	<3	<3	<3	<3	<3	<3	<3	<3		ug/l	33800000						
o-Xylene	<3	<3	<3	<3	<3	<3	<3	<3	<3		ug/l	503000	500			30		
Sum of detected BTEX	<28	<28	<28	<28	<28	<28	<28	<28	<28									
Sum of detected Xylenes	<11	<11	<11	<11	<11	<11	<11	<11	<11		ug/l		500					
Toluene	<4	<4	<4	<4	<4	<4	<4	<4	<4		ug/l	9090000	700					
Total Aliphatics & Aromatics >C5-35 (aq)	<10	<10	205	<10	<10	<10	<10	<10	<10									
Total Aliphatics >C12-C35 (aq)	<10	<10	205	<10	<10	<10	<10	<10	<10									
Total Aromatics >EC12-	<10	<10	<10	<10	<10	<10	<10	<10	<10									
Acenaphthene (aq)	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015		ug/l	no wsv						
Acenaphthylene (aq)	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011		ug/l							
Anthracene (aq)	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015		ug/l	no wsv				0.1	0.1	
Benzo(a)anthracene (aq)	<0.017	<0.017	0.0596	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017		ug/l	no wsv						
Benzo(a)pyrene (aq)	<0.009	<0.009	0.126	0.0217	0.0426	<0.009	<0.009	<0.009	<0.009		ug/l	no wsv	0.7			0.01	0.27	
Benzo(b)fluoranthene (aq)	<0.023	<0.023	0.0818	<0.023	0.0352	<0.023	<0.023	<0.023	<0.023		ug/l	no wsv	*		0.1		0.017	
Benzo(g,h,i)perylene (aq)	<0.016	<0.016	0.0888	<0.016	0.033	<0.016	<0.016	<0.016	<0.016		ug/l	no wsv	*		0.1		0.0082	
Benzo(k)fluoranthene (aq)	<0.027	<0.027	0.0898	<0.027	0.0319	<0.027	<0.027	<0.027	<0.027		ug/l	no wsv	*		0.1		0.017	
Chrysene (aq)	<0.013	<0.013	0.1	0.0187	0.0316	<0.013	<0.013	<0.013	<0.013		ug/l	no wsv						
Dibenzo(a,h)anthracene (aq)	<0.016	<0.016	0.0172	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016		ug/l	no wsv						
Fluoranthene (aq)	<0.017	<0.017	0.141	0.0217	0.0491	<0.017	<0.017	<0.017	<0.017		ug/l	no wsv			0.1	0.0063	1	
Fluorene (aq)	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014		ug/l	no wsv						
Indeno(1,2,3-cd)pyrene (aq)	<0.014	<0.014	0.0443	<0.014	0.0274	<0.014	<0.014	<0.014	<0.014		ug/l	no wsv	*					
Naphthalene (aq)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.158	<0.1	<0.1		ug/l	99800				2	130	
PAH, Total Detected USEPA 16 (aq)	<0.247	<0.247	0.968	<0.247	0.326	<0.247	<0.247	<0.247	<0.247									
Phenanthrene (aq)	<0.022	<0.022	0.0554	<0.022	0.0283	<0.022	<0.022	<0.022	<0.022		ug/l							

4-Nitrophenol (aq)	<1	<1	<1	<1	<1	<1	<1	<1	<1									
Azobenzene (aq)	<1	<1	<1	<1	<1	<1	<1	<1	<1									
bis(2-Chloroethoxy)methane	<1	<1	<1	<1	<1	<1	<1	<1	<1									
bis(2-Chloroethyl)ether (aq)	<1	<1	<1	<1	<1	<1	<1	<1	<1									
bis(2-Ethylhexyl) phthalate	<2	2.14	<2	<2	<2	<2	<2	<2	<2		µg/l	no wsv	8				1.3	
Butylbenzyl phthalate (aq)	<1	<1	<1	<1	<1	<1	<1	<1	<1		µg/l						7.5	51
Carbazole (aq)	<1	<1	<1	<1	<1	<1	<1	<1	<1									
Dibenzofuran (aq)	<1	<1	<1	<1	<1	<1	<1	<1	<1									
Diethyl phthalate (aq)	<1	<1	<1	<1	<1	<1	<1	<1	<1		µg/l	no wsv					200	1000
Dimethyl phthalate (aq)	<1	<1	<1	<1	<1	<1	<1	<1	<1		µg/l						800	4000
Hexachlorobenzene (aq)	<1	<1	<1	<1	<1	<1	<1	<1	<1									0.05
Hexachlorobutadiene (aq)	<1	<1	<1	<1	<1	<1	<1	<1	<1		µg/l		0.6					0.6
Hexachlorocyclopentadiene	<1	<1	<1	<1	<1	<1	<1	<1	<1									
Hexachloroethane (aq)	<1	<1	<1	<1	<1	<1	<1	<1	<1		µg/l	<50000						
Indeno(1,2,3-cd)pyrene (aq)	<1	<1	<1	<1	<1	<1	<1	<1	<1									
Isophorone (aq)	<1	<1	<1	<1	<1	<1	<1	<1	<1									
n-Dibutyl phthalate (aq)	<1	<1	<1	<1	<1	<1	<1	<1	<1		µg/l	no wsv					8	40
n-Dioctyl phthalate (aq)	<5	<5	<5	<5	<5	<5	<5	<5	<5		µg/l	no wsv					20	40
Nitrobenzene (aq)	<1	<1	<1	<1	<1	<1	<1	<1	<1									
n-Nitroso-n-dipropylamine	<1	<1	<1	<1	<1	<1	<1	<1	<1									
Pentachlorophenol (aq)	<1	<1	<10	<1	<1	<1	<1	<1	<10		µg/l		9				0.4	1
Phenol (aq)	<1	<1	<1	<1	<1	<1	<1	<1	<1		µg/l	269000000						
1,1,1,2-Tetrachloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1		µg/l	96700						
1,1,1-Trichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1		µg/l	1270000					100	
1,1,2,2-Tetrachloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1		µg/l	650000						
1,1,2-Trichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1		µg/l	208000					400	
1,1-Dichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1		µg/l	1110000						
1,1-Dichloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1		µg/l	65600						
1,1-Dichloropropene	<1	<1	<1	<1	<1	<1	<1	<1	<1									
1,2,3-Trichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1									
1,2,3-Trichloropropane	<1	<1	<1	<1	<1	<1	<1	<1	<1									
1,2,4-Trichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1									
1,2,4-Trimethylbenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1		µg/l	9830						
1,2-Dibromo-3- chloropropane	<1	<1	<1	<1	<1	<1	<1	<1	<1		µg/l		1					
1,2-Dibromoethane	<1	<1	<1	<1	<1	<1	<1	<1	<1		µg/l		0.4					
1,2-Dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1		µg/l		1000					
1,2-Dichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1		µg/l	3540	30		3		10	
1,2-Dichloropropane	<1	<1	<1	<1	<1	<1	<1	<1	<1		µg/l	11100	40					
1,3,5-Trichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1									
1,3,5-Trimethylbenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1									
1,3-Dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1									
1,3-Dichloropropane	<1	<1	<1	<1	<1	<1	<1	<1	<1		µg/l		20					
1,4-Dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1		µg/l		300					
2,2-Dichloropropane	<1	<1	<1	<1	<1	<1	<1	<1	<1									
2-Chlorotoluene	<1	<1	<1	<1	<1	<1	<1	<1	<1									
4-Bromofluorobenzene**	94.3	95.7	95.8	94.5	95.3	93.5	94.5	94.7	96.2									
4-Chlorotoluene	<1	<1	<1	<1	<1	<1	<1	<1	<1									
4-iso-Propyltoluene	<1	<1	<1	<1	<1	<1	<1	<1	<1									
Benzene	<1	<1	<1	<1	<1	<1	<1	<1	<1		µg/l	8460	10		1		10	50
Bromobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1		µg/l	87700						
Bromochloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1									
Bromodichloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1		µg/l	6820	60					
Bromoform	<1	<1	<1	<1	<1	<1	<1	<1	<1		µg/l	1770000	100					
Bromomethane	<1	<1	<1	<1	<1	<1	<1	<1	<1									
Carbon disulphide	<1	<1	<1	<1	<1	<1	<1	<1	<1									
Carbontetrachloride	<1	<1	<1	<1	<1	<1	<1	<1	<1		µg/l	3310	4				12	
Chlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1		µg/l	1300000						
Chloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1									
Chloroform	<1	<1	<1	<1	<1	<1	<1	<1	<1		µg/l	369000	300				2.5	
Chloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1		µg/l	5500						
cis-1,2-Dichloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1		µg/l	54600						
cis-1,3-Dichloropropene	<1	<1	<1	<1	<1	<1	<1	<1	<1									
Dibromochloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1		µg/l	38700	100					
Dibromofluoromethane**	113	113	113	113	115	111	114	112	110									
Dibromomethane	<1	<1	<1	<1	<1	<1	<1	<1	<1									
Dichlorodifluoromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1									
Dichloromethane	<3	<3	<3	<3	<3	<3	<3	<3	<3		µg/l	1500000	20				20	
Ethylbenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1		µg/l	1250000	300					
Hexachlorobutadiene	<1	<1	<1	<1	<1	<1	<1	<1	<1		µg/l		0.6					0.6
Isopropylbenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1		µg/l	38900						
m,p-Xylene	<1	<1	<1	<1	<1	<1	<1	<1	<1		µg/l	413000/432000	500				30	
Methyl tertiary butyl ether (MTBE)	<1	<1	<1	<1	<1	<1	<1	<1	<1		µg/l	33800000						
Naphthalene	<1	<1	<1	<1	<1	<1	<1	<1	<1		µg/l	99800					2	130
n-Butylbenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1									
o-Xylene	<1	<1	<1	<1	<1	<1	<1	<1	<1		µg/l	503000	500				30	
Propylbenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1		µg/l	1100000						
sec-Butylbenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1									
Styrene	<1	<1	<1	<1	<1	<1	<1	<1	<1		µg/l	3530000	20				50	500
tert-Amyl methyl ether (TAME)	<1	<1	<1	<1	<1	<1	<1	<1	<1									
tert-Butylbenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1									
Tetrachloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1		µg/l	174000	40	10	10			
Toluene	<1	<1	<1	<1	<1	<1	<1	<1	<1		µg/l	9090000	700				74	380
Toluene-d8**	99.4	99.7	99.4	98.4	99.4	97.9	99.7	99.4	98.7		n/a							
trans-1,2-Dichloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1			65700						
trans-1,3-Dichloropropene	<1	<1	<1	<1	<1	<1	<1	<1	<1									
Trichloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1		µg/l		20	10	10			
Trichlorofluoromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1									
Vinyl Chloride	<1	<1	<1	<1	<1	<1	<1	<1	<1		µg/l	249	0.3	0.5	0.5			

#### Sources of Information / Notes

UK DWS - The Water Supply (Water Quality) Regulations 2017.

DEFRA: Proposed Aquatic Environmental Quality Standards.

WHO Guidelines for Drinking Water Quality. Fourth edition (2017)

WHO Petroleum Products in Drinking Water 2005

\*Limit within Private Water Supply Regs NI 2017 is 0.1µg/l for sum of 4 specified compounds

\*\* - There are no WHO guideline values for aliphatic fractions C16 - C21 and C21-35, therefore the guideline values of C8-C16 applied.

Sample Date 15/01/13