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GROUNDWATER MONITORING		Location & timing		Techniques			
Analyte	Units	Monitoring locations	Monitoring start*	Sampling method	Lab	Lab method	LOR
Groundwater depth							
Depth below ground surface	m	GW1 - GW17 except 1,5,6,9	18-Sep-06	Field	-	-	-
Group A - Physicochemical							
pH	units	GW1 - GW17 except 1,5,6,9	18-Sep-06	Field	-	-	-
Electrical conductivity	uS/cm	GW1 - GW17 except 1,5,6,9	18-Sep-06	Field	-	-	-
Turbidity	NTU	GW1 - GW17 except 1,5,6,9	18-Sep-06	Field	-	-	-
Dissolved oxygen	%sat	GW1 - GW17 except 1,5,6,9	18-Sep-06	Field	-	-	-
Temperature	deg C	GW1 - GW17 except 1,5,6,9	18-Sep-06	Field	-	-	-
Group B - General							
Alkalinity - total as CaCO ₃	mg/L	GW1 - GW17 except 1,5,6,9	20-Sep-06	Bore	NMI	MNW_B1	5
Bicarbonate alkalinity	mg/L	GW1 - GW17 except 1,5,6,9	20-Sep-06	Bore	NMI	MNW_B1	5
Carbonate alkalinity	mg/L	GW1 - GW17 except 1,5,6,9	20-Sep-06	Bore	NMI	MNW_B1	5
Oil & grease	mg/L	GW1 - GW17 except 1,5,6,9	20-Sep-06	Bore	NMI	NW_S10B	5
Solids - total dissolved	mg/L	GW1 - GW17 except 1,5,6,9	20-Sep-06	Bore	NMI	NW_B10A	100
Chemical oxygen demand	mg/L	GW1 - GW17 except 1,5,6,9	20-Sep-06	Bore	NMI	NW_S3	3
Dissolved organic carbon	mg/L	GW1 - GW17 except 1,5,6,9	20-Sep-06	Bore	NMI	NW_S15	1
Group C - Major cations and anions							
Sodium - filtered	ug/L	GW1 - GW17 except 1,5,6,9	20-Sep-06	Bore	NMI	NT2_47	50
Calcium - filtered	ug/L	GW1 - GW17 except 1,5,6,9	20-Sep-06	Bore	NMI	NT2_47	5
Potassium - filtered	ug/L	GW1 - GW17 except 1,5,6,9	20-Sep-06	Bore	NMI	NT2_47	50
Magnesium - filtered	ug/L	GW1 - GW17 except 1,5,6,9	20-Sep-06	Bore	NMI	NT2_47	1

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Sulphate	ug/L	GW1 - GW17 except 1,5,6,9	20-Sep-06	Bore	NMI	NWD10/NWB14	100
Chloride	ug/L	GW1 - GW17 except 1,5,6,9	20-Sep-06	Bore	NMI	NWD3/NWB14	100
Fluoride as F	ug/L	GW1 - GW17 except 1,5,6,9	20-Sep-06	Bore	NMI	NW_B3	0.1
Cyanide - total	ug/L	GW1 - GW17 except 1,5,6,9	20-Sep-06	Bore	NMI	NW_B20	5
Group D - Nutrients							
Nitrate-N	mg/L	GW1 - GW17 except 1,5,6,9	20-Sep-06	Bore	NMI	NW_B19	0.005
Nitrite-N	mg/L	GW1 - GW17 except 1,5,6,9	20-Sep-06	Bore	NMI	NW_B19	0.005
Ammonia-N	mg/L	GW1 - GW17 except 1,5,6,9	20-Sep-06	Bore	NMI	NW_B18_S1	0.005
Nitrogen - total as N	mg/L	GW1 - GW17 except 1,5,6,9	20-Sep-06	Bore	NMI	NW_B23	0.05
Phosphorus total	ug/L	GW1 - GW17 except 1,5,6,9	20-Sep-06	Bore	NMI	NT2_47	50
Orthophosphate as P (FRP)	ug/L	GW1 - GW17 except 1,5,6,9	20-Sep-06	Bore	NMI	NW_S21	5
Group E - Dissolved metals (standard)							
Aluminium - filtered	ug/L	GW1 - GW17 except 1,5,6,9	20-Sep-06	Bore	NMI	NT2_47	5
Arsenic - filtered	ug/L	GW1 - GW17 except 1,5,6,9	20-Sep-06	Bore	NMI	NT2_247_251	0.5
Cadmium - filtered	ug/L	GW1 - GW17 except 1,5,6,9	20-Sep-06	Bore	NMI	NT2_47	0.1
Cobalt - filtered	ug/L	GW1 - GW17 except 1,5,6,9	20-Sep-06	Bore	NMI	NT2_47	0.2
Chromium - filtered	ug/L	GW1 - GW17 except 1,5,6,9	20-Sep-06	Bore	NMI	NT2_47	0.5
Copper - filtered	ug/L	GW1 - GW17 except 1,5,6,9	20-Sep-06	Bore	NMI	NT2_47	1
Iron - filtered	ug/L	GW1 - GW17 except 1,5,6,9	20-Sep-06	Bore	NMI	NT2_47	5
Manganese - filtered	ug/L	GW1 - GW17 except 1,5,6,9	20-Sep-06	Bore	NMI	NT2_47	0.5
Nickel - filtered	ug/L	GW1 - GW17 except 1,5,6,9	20-Sep-06	Bore	NMI	NT2_47	0.5

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Lead - filtered	ug/L	GW1 - GW17 except 1,5,6,9	20-Sep-06	Bore	NMI	NT2_47	0.2
Zinc - filtered	ug/L	GW1 - GW17 except 1,5,6,9	20-Sep-06	Bore	NMI	NT2_47	1
Group F - Dissolved metals (others)							
Barium - filtered	ug/L	GW1 - GW17 except 1,5,6,9	20-Sep-06	Bore	NMI	NT2_47	1
Boron - filtered	ug/L	GW1 - GW17 except 1,5,6,9	20-Sep-06	Bore	NMI	NT2_47	10
Chromium VI*** - filtered	ug/L	GW1 - GW17 except 1,5,6,9	20-Sep-06	Bore	NMI	NW_S4_B22	5
Mercury - filtered	ug/L	GW1 - GW17 except 1,5,6,9	20-Sep-06	Bore	NMI	NT2_47_244	0.1
Molybdenum - filtered	ug/L	GW1 - GW17 except 1,5,6,9	20-Sep-06	Bore	NMI	NT2_47	0.1
Antimony - filtered	ug/L	GW1 - GW17 except 1,5,6,9	20-Sep-06	Bore	NMI	NT2_47	0.1
Selenium - filtered	ug/L	GW1 - GW17 except 1,5,6,9	20-Sep-06	Bore	NMI	NT2_47_251	0.1
Tin - filtered	ug/L	GW1 - GW17 except 1,5,6,9	20-Sep-06	Bore	NMI	NT2_47	2
Vanadium - filtered	ug/L	GW1 - GW17 except 1,5,6,9	20-Sep-06	Bore	NMI	NT2_47	0.5
Group G - Organics (hydrocarbons)							
TPH C6 - C9	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NGCMS_1121	25
TPH C10 - C14	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NGCMS_1112	25
TPH C15 - C28	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NGCMS_1112	100
TPH C29 - C36	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NGCMS_1112	100
Benzene	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NGCMS_1120	1
Toluene	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NGCMS_1120	1
Ethylbenzene	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NGCMS_1120	1
Xylenes	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NGCMS_1120	2
Group H - Organics (others)							

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<i>Organochlorine Pesticides</i>							
HCB	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NR_19	0.1
Heptachlor	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NR_19	0.1
Heptachlor epoxide	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NR_19	0.1
Aldrin	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NR_19	0.1
Gamma-BHC (Lindane)	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NR_19	0.1
Alpha-BHC	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NR_19	0.1
Beta-BHC	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NR_19	0.1
Delta-BHC	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NR_19	0.1
Trans-Chlordane	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NR_19	0.1
cis-Chlordane	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NR_19	0.1
Oxychlordane	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NR_19	0.1
Dieldrin	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NR_19	0.1
p,p-DDE	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NR_19	0.1
p,p-DDD	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NR_19	0.1
p,p-DDT	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NR_19	0.1
Endrin	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NR_19	0.1
Endrin Aldehyde	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NR_19	0.1
Endrin Ketone	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NR_19	0.1
Alpha-Endosulfan	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NR_19	0.1
Beta-Endosulfan	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NR_19	0.1
Endosulfan Sulfate	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NR_19	0.1

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Methoxychlor	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NR_19	0.1
<i>Organophosphate Pesticides</i>							
Demeton-S-Methyl	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NR_19	0.1
Dichlorvos	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NR_19	0.1
Diazinon	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NR_19	0.1
Dimethoate	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NR_19	0.1
Chlorpyrifos	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NR_19	0.1
Chlorpyrifos Methyl	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NR_19	0.1
Malathion	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NR_19	0.1
Fenthion	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NR_19	0.1
Azinphos Ethyl	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NR_19	0.1
Azinphos Methyl	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NR_19	0.1
Chlorfenvinphos (E)	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NR_19	0.1
Chlorfenvinphos (Z)	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NR_19	0.1
Ethion	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NR_19	0.1
Fenitrothion	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NR_19	0.1
Parathion (Ethyl)	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NR_19	0.1
Parathion Methyl	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NR_19	0.1
Pirimiphos Ethyl	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NR_19	0.1
Pirimiphos Methyl	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NR_19	0.1
Demeton-S-Methyl	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NR_19	0.1
Dichlorvos	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NR_19	0.1

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Diazinon	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NR_19	0.1
Atrazine	ug/L	GW3,4,11,13,14,16		Bore	NMI	NR_19	0.1
Hexazinone	ug/L	GW3,4,11,13,14,16		Bore	NMI	NR_19	0.1
Simazine	ug/L	GW3,4,11,13,14,16		Bore	NMI	NR_19	0.1
Metribuzin	ug/L	GW3,4,11,13,14,16		Bore	NMI	NR_19	0.1
Prometryn	ug/L	GW3,4,11,13,14,16		Bore	NMI	NR_19	0.1
<i>Semi-volatile chlorinated HC</i>							
2-Chloronaphthalene	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NGCMS_1122	20
1,4-Dichlorobenzene	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NGCMS_1122	20
1,2-Dichlorobenzene	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NGCMS_1122	20
1,3-Dichlorobenzene	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NGCMS_1122	20
Hexachlorobenzene	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NGCMS_1122	20
1,2,4-Trichlorobenzene	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NGCMS_1122	20
Hexachloroethane	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NGCMS_1122	20
Hexachlorocyclopentadiene	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NGCMS_1122	20
Hexachloro-1,3-butadiene	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NGCMS_1122	20
<i>Phenols</i>							
Phenol	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NGCMS_1111	1
2-Chlorophenol	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NGCMS_1111	1
2-Methylphenol	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NGCMS_1111	1
2,4-Dichlorophenol	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NGCMS_1111	1
3-& 4-Methylphenols	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NGCMS_1111	2

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2,4-Dimethylphenol	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NGCMS_1111	1
2,6-Dichlorophenol	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NGCMS_1111	1
2-Nitrophenol	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NGCMS_1111	1
4-Chloro-3-methylphenol	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NGCMS_1111	1
2,4,6-Trichlorophenol	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NGCMS_1111	1
4-Nitrophenol	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NGCMS_1111	1
2,4,5-Trichlorophenol	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NGCMS_1111	2
2,3,4,6-Tetrachlorophenol	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NGCMS_1111	2
Pentachlorophenol	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NGCMS_1111	2
<i>Trihalomethanes</i>							
Chloroform	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NGCMS_1120	1
Bromodichloromethane	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NGCMS_1120	5
Dibromochloromethane	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NGCMS_1120	5
Bromoform	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NGCMS_1120	5
<i>Poly Aromatic Hydrocarbons (PAH)</i>							
Naphthalene	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NGCMS_1111	0.01
Acenaphthylene	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NGCMS_1111	0.01
Acenaphthene	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NGCMS_1111	0.01
Fluorene	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NGCMS_1111	0.01
Phenanthrene	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NGCMS_1111	0.01
Anthracene	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NGCMS_1111	0.01
Fluoranthene	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NGCMS_1111	0.01

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Pyrene	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NGCMS_1111	0.01
Benz(a)anthracene	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NGCMS_1111	0.01
Chrysene	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NGCMS_1111	0.01
Benzo(b)&(k)fluoranthene	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NGCMS_1111	0.02
Benzo(a)pyrene	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NGCMS_1111	0.01
Indeno(1,2,3-cd)pyrene	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NGCMS_1111	0.01
Dibenz(ah)anthracene	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NGCMS_1111	0.01
Benzo(ghi)perylene	ug/L	GW3,4,11,13,14,16	20-Sep-06	Bore	NMI	NGCMS_1111	0.01
PCDD/PCDF/PCB							
Dioxin/furan/PCB (Lower bound)	TEF	GW3,4	29-Sep-05	Bore	NMI	AUTL_01	Variou s
Dioxin/furan/PCB (Middle bound)	TEF	GW3,4	29-Sep-05	Bore	NMI	AUTL_01	Variou s
*Note: Initial samples taken at GW3 and GW4 on 29 Sep 05 also have a full analysis suite							