

**Ms Keirns
Golder Associates Ireland
Town Centre House
Dublin Road
Naas Kildare**

15 December 2008

Test Report: MID/486085/2008

Dear Ms Keirns

Analysis of your sample(s) submitted on 17 January 2008 is now complete and we have pleasure in enclosing the appropriate test report(s).

An invoice for the analysis carried out will be sent under separate cover.

Should you have any queries regarding this report(s) or any part of our service, please contact Customer Services on +44 (0)24 7658 4800 who will be happy to discuss your requirements.

If you would like to arrange any further analysis, please contact Customer Services. To arrange container delivery or sample collection, please call the Couriers Department directly on 024 7685 6562.

Thank you for using STL and we look forward to receiving your next samples.

Yours Sincerely,

Signed: *L. Ellis*

Name: L. Ellis

Title: Team Leader

STL Midlands

Rayner House, 80 Lockhurst Lane,
Coventry, CV6 5PZ

Tel: +44 (0)24 7658 4800

Fax: +44 (0)24 7658 4848

www.stl-ltd.com

Severn Trent Laboratories Limited

Registered in England & Wales Registration No. 2148934 Registered Office: 2297 Coventry Road, Birmingham B26

Report Summary

Ms Pam Keirms
Golder Associates Ireland
Town Centre House
Dublin Road
Naas
Kildare



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STL

Date of Issue: 05 February 2008

Report Number: **MID/486085/2008** Issue **1**

Number of Samples
included in this report **13**

Number of Test Results
included in this report **1147**

Site Name: **0750710230**
Job Received: **17 January 2008**
Analysis Commenced: **21 January 2008**
Order No: **3245**

Signed: *L. Ellis*

Name: **L. Ellis**
Title: **Team Leader**

Date: **05 February 2008**

STL was not responsible for sampling unless otherwise stated. Sampling is not covered by our UKAS accreditation.
Information on the methods of analysis and performance characteristics are available on request.
Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.
Tests marked 'Not UKAS Accredited' in this Report/Certificate are not included in the UKAS Accreditation Schedule for our laboratory.

Severn Trent Laboratories Ltd.

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Report Number: **MID/486085/2008**

Issue **1**

Name: **0750710230**

Group	Determinand	Unit	Method/ Accreditation	Groundwater										
				10373897	10373898	10373899	10373900	10373901	10373902	10373903	10373904	10373905	10373906	
				BH1/07	BH2/07	BH3/07	BH4/07	BH5/07	BH6/07	BH7/07	BH8/07	BHA	LAWLOR	
Metals	Boron in Filtrate as B	mg/l	WAS049 Y Cov	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
	Cadmium in Filtrate as Cd	mg/l	WAS049 Y Cov	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	Calcium in Filtrate as Ca	mg/l	WAS049 Y Cov	129	98	147	115	69	183	95	110	113	126	126
	Chromium, Total as Cr	mg/l	WAS049 Y Cov	0.006	<0.005	<0.005	0.030	0.045	0.028	0.008	<0.005	<0.005	<0.005	<0.005
	Copper in Filtrate as Cu	mg/l	WAS049 Y Cov	0.006	<0.005	<0.005	0.009	0.015	<0.005	0.005	0.006	<0.005	<0.005	0.007
	Iron in Filtrate as Fe	mg/l	WAS049 Y Cov	<0.05	<0.05	<0.05	<0.05	0.07	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Lead in Filtrate as Pb	mg/l	WAS049 Y Cov	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	Magnesium in filtrate as Mg	mg/l	WAS049 Y Cov	15	20	13	15	11	13	17	18	13	8.2	8.2
	Manganese in Filtrate as Mn	mg/l	WAS049 Y Cov	0.027	0.29	0.029	0.16	0.022	0.059	0.15	0.023	0.16	0.027	0.027
	Mercury in Filtrate as Hg	mg/l	WAS013 Y Cov	<0.0001	<0.0001	<0.0001	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Nickel in Filtrate as Ni	mg/l	WAS049 Y Cov	<0.005	0.005	<0.005	0.006	0.008	0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	Potassium in filtrate as K	mg/l	WAS049 Y Cov	0.8	1.3	1.4	1.6	4.3	2.1	1.3	1.4	3.4	1.4	1.4
	Sodium in filtrate as Na	mg/l	WAS049 Y Cov	11	16	9.6	14	27	22	18	18	10	16	16
	Zinc in Filtrate as Zn	mg/l	WAS049 Y Cov	0.075	0.028	0.024	0.031	0.055	0.040	0.031	0.026	0.033	0.045	0.045
Inorganics	pH		WAS039 Y Cov	7.7	8.0	8.1	8.1	8.1	7.5	8.0	7.8	7.4	7.9	7.9
	Conductivity- Electrical 20C	uS/cm	WAS039 Y Cov	596	518	634	548	382	784	497	561	569	546	546
	Alkalinity as CaCO3	mg/l	WAS025 Y Cov	452	283	337	829	351	804	268	315	319	278	278
	Ammoniacal Nitrogen as N	mg/l	WAS036 Y Cov	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	5.8	<0.3	<0.3
	Chloride as Cl	mg/l	WAS036 Y Cov	9	10	13	12	12	11	13	12	8	11	11
	Nitrite as N	mg/l	WAS036 Y Cov	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Nitrate as N	mg/l	WAS036 Y Cov	0.6	<0.3	4.0	1.4	<0.3	3.1	0.9	1.5	<0.3	1.9	1.9
	Nitrogen, Total Oxidised as N	mg/l	WAS036 Y Cov	0.6	<0.3	4.0	1.4	<0.3	3.1	0.9	1.5	<0.3	1.9	1.9
	Phosphate, Ortho as P	mg/l	WAS036 Y Cov	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.9	<0.1	<0.1
	Sulphate as SO4	mg/l	WAS036 Y Cov	9	14	9	11	17	19	9	18	<5	13	13
	Solids, Total diss at 180c	mg/l	WAS010 N Cov	373	323	395	337	236	490	322	355	325	338	338

Accreditation Codes: Y = UKAS Accredited, N = Not UKAS Accredited, M = MCERTS, S = Sub-contracted.
 Analysed at: Bri = STL Bridgend, Cov = STL Coventry, Mki = STL Midlands, Rea = STL Reading, Run = STL Runcom.
 For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered. US=Insufficient sample

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Report Number: MID/486086/2008

Issue 1

Site Name: 0750710230

Group	Determinand	Unit	Method/ Accreditation	Groundwater									
				10373897	10373898	10373899	10373900	10373901	10373902	10373903	10373904	10373905	10373908
				BH107	BH207	BH307	BH407	BH507	BH607	BH707	BH807	BHA	LAWLOR
				14/01/2007	14/01/2007	15/01/2007	15/01/2007	14/01/2007	14/01/2007	15/01/2007	15/01/2007	15/01/2007	15/01/2007
Inorganics	COD (Total)	mg/l	WAS040 Y Cov	69	<20	<20	<20	<20	38	<20	<20	20	<20
	TOC (Filtered)	mg/l	WAS005 Y Cov	1.2	1.9	1.9	1.3	1.8	1.9	1.5	2.3	3.4	1.9
	Cyanide excluding Iron Cyanide	mg/l	WAS018 Y Cov	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Cyanide, total as CN	ug/l	WAS018 Y Cov	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	Fluoride as F	mg/l	WAS029 Y Cov	<0.1	<0.1	<0.1	0.2	0.1	0.1	0.2	0.1	<0.1	0.1
OP Pesticides	Atrazine	ug/l	GE047 Y Cov	<0.020	-	-	-	<0.020	-	-	<0.020	-	-
	Simazine	ug/l	GE047 Y Cov	<0.020	-	-	-	<0.020	-	-	<0.020	-	-
Acid Herbs	Bromoxynil	ug/l	GE020 Y Cov	<0.05	-	-	-	<0.05	-	-	<0.05	-	-
	Dichlorprop	ug/l	GE020 Y Cov	<0.05	-	-	-	<0.05	-	-	<0.05	-	-
Phenols	2-Chlorophenol	ug/l	GE018 Y Cov	<1.00	-	-	-	<1.00	-	-	<1.00	-	-
	2,4,6-Trichlorophenol	ug/l	GE018 Y Cov	<1.00	-	-	-	<1.00	-	-	<1.00	-	-
TPH	Aldrin	ng/l	GE047 Y Cov	<6	-	-	-	<6	-	-	<6	-	-
PAH	Acenaphthene	ug/l	GE019 Y Cov	<0.01	-	-	-	<0.01	-	-	<0.01	-	-
	Acenaphthylene	ug/l	GE019 Y Cov	<0.01	-	-	-	<0.01	-	-	<0.01	-	-
	Anthracene	ug/l	GE019 Y Cov	<0.01	-	-	-	<0.01	-	-	<0.01	-	-
	Benzo-a-anthracene	ug/l	GE019 Y Cov	<0.01	-	-	-	<0.01	-	-	<0.01	-	-
	Benzo-g,h,i perylene	ug/l	GE019 Y Cov	<0.01	-	-	-	<0.01	-	-	<0.01	-	-
	Benzo-e-pyrene	ug/l	GE019 Y Cov	<0.01	-	-	-	<0.01	-	-	<0.01	-	-
	Benzo-b-fluoranthene	ug/l	GE019 Y Cov	<0.01	-	-	-	<0.01	-	-	<0.01	-	-
	Benzo-k-fluoranthene	ug/l	GE019 Y Cov	<0.01	-	-	-	<0.01	-	-	<0.01	-	-
	Chrysene	ug/l	GE019 Y Cov	<0.01	-	-	-	<0.01	-	-	<0.01	-	-
	Dibenz-a-h-anthracene	ug/l	GE019 Y Cov	<0.01	-	-	-	<0.01	-	-	<0.01	-	-
	Fluoranthene	ug/l	GE019 Y Cov	<0.01	-	-	-	<0.01	-	-	<0.01	-	-
	Fluorene	ug/l	GE019 Y Cov	<0.01	-	-	-	<0.01	-	-	<0.01	-	-
	Indeno 1,2,3-cd pyrene	ug/l	GE019 Y Cov	<0.01	-	-	-	<0.01	-	-	0.01	-	-

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Report Number: **MID/486085/2008**

Issue **1**

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Name: **0750710230**

Group	Determinand	Unit	Method/ Accreditation	Groundwater										
				10373897	10373898	10373899	10373900	10373901	10373902	10373903	10373904	10373905	10373906	
				BH1/07	BH2/07	BH3/07	BH4/07	BH5/07	BH6/07	BH7/07	BH8/07	BHA	LAWLOR	
				14/01/2007	14/01/2007	15/01/2007	15/01/2007	14/01/2007	14/01/2007	15/01/2007	15/01/2007	15/01/2007	15/01/2007	15/01/2007
PAH	Naphthalene	ug/l	GEO19 Y Cov	<0.01	-	-	-	<0.01	-	-	<0.01	-	-	
	Phenanthrene	ug/l	GEO19 Y Cov	<0.01	-	-	-	<0.01	-	-	<0.01	-	-	
	Pyrene	ug/l	GEO19 Y Cov	<0.01	-	-	-	<0.01	-	-	<0.01	-	-	
	PAH,Total	ug/l	GEO19 Y Cov	<0.01	-	-	-	<0.01	-	-	0.01	-	-	
VOC	Dichlorodifluoromethane	ug/l	GEO32 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
	Chloromethane	ug/l	GEO32 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
	Chloroethane	ug/l	GEO32 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
	Bromomethane	ug/l	GEO32 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
	Trichlorofluoromethane	ug/l	GEO32 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
	1,1-Dichloroethane	ug/l	GEO32 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
	Dichloromethane	ug/l	GEO32 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
	1,1-Dichloroethane	ug/l	GEO32 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
	Cis-1,2-dichloroethane	ug/l	GEO32 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
	2,2-Dichloropropane	ug/l	GEO32 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
	Chloroform	ug/l	GEO32 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
	Bromochloromethane	ug/l	GEO32 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
	1,1,1-Trichloroethane	ug/l	GEO32 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
	1,1-Dichloropropane	ug/l	GEO32 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
	1,2-Dichloroethane	ug/l	GEO32 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
	Benzene	ug/l	GEO32 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
	1,2-Dichloropropane	ug/l	GEO32 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
	Trichloroethene	ug/l	GEO32 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
Bromodichloromethane	ug/l	GEO32 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-		
Dibromomethane	ug/l	GEO32 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-		
Cis-1,3-dichloropropene	ug/l	GEO32 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-		

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Report Number: MID/486086/2008

Issue 1

Site Name: 0750710230

Group	Determinand	Unit	Method/ Accreditation	Groundwater										
				10373897	10373898	10373899	10373900	10373901	10373902	10373903	10373904	10373905	10373906	
				BH1/07	BH2/07	BH3/07	BH4/07	BH5/07	BH6/07	BH7/07	BH8/07	BHA	LAWLOR	
				14/01/2007	14/01/2007	15/01/2007	15/01/2007	14/01/2007	14/01/2007	15/01/2007	15/01/2007	15/01/2007	15/01/2007	15/01/2007
VOC	Toluene	ug/l	GE032 Y Cov	<1.0	-	-	-	<1.0	-	-	-	<1.0	-	-
	Trans-1,3-dichloropropene	ug/l	GE032 Y Cov	<1.0	-	-	-	<1.0	-	-	-	<1.0	-	-
	1,1,2-trichloroethane	ug/l	GE032 Y Cov	<1.0	-	-	-	<1.0	-	-	-	<1.0	-	-
	Carbon Tetrachloride	ug/l	GE032 Y Cov	<1.0	-	-	-	<1.0	-	-	-	<1.0	-	-
	Vinyl Chloride	ug/l	GE032 Y Cov	<1.0	-	-	-	<1.0	-	-	-	<1.0	-	-
	1,3-dichloropropene	ug/l	GE032 Y Cov	<1.0	-	-	-	<1.0	-	-	-	<1.0	-	-
	Tetrachloroethane	ug/l	GE032 Y Cov	<1.0	-	-	-	<1.0	-	-	-	<1.0	-	-
	Dibromochloromethane	ug/l	GE032 Y Cov	<1.0	-	-	-	<1.0	-	-	-	<1.0	-	-
	1,2-dibromoethane	ug/l	GE032 Y Cov	<1.0	-	-	-	<1.0	-	-	-	<1.0	-	-
	Chlorobenzene	ug/l	GE032 Y Cov	<1.0	-	-	-	<1.0	-	-	-	<1.0	-	-
	1,1,1,2-tetrachloroethane	ug/l	GE032 Y Cov	<1.0	-	-	-	<1.0	-	-	-	<1.0	-	-
	Ethyl Benzene	ug/l	GE032 Y Cov	<1.0	-	-	-	<1.0	-	-	-	<1.0	-	-
	m,p-xylene	ug/l	GE032 Y Cov	<1.0	-	-	-	<1.0	-	-	-	<1.0	-	-
	o-xylene	ug/l	GE032 Y Cov	<1.0	-	-	-	<1.0	-	-	-	<1.0	-	-
	Styrene	ug/l	GE032 Y Cov	<1.0	-	-	-	<1.0	-	-	-	<1.0	-	-
	Bromoform	ug/l	GE032 Y Cov	<1.0	-	-	-	<1.0	-	-	-	<1.0	-	-
	Trans-1,2-dichloroethene	ug/l	GE032 Y Cov	<1.0	-	-	-	<1.0	-	-	-	<1.0	-	-
	Isopropylbenzene	ug/l	GE032 Y Cov	<1.0	-	-	-	<1.0	-	-	-	<1.0	-	-
	1,1,2,2-tetrachloroethane	ug/l	GE032 Y Cov	<1.0	-	-	-	<1.0	-	-	-	<1.0	-	-
	1,2,3-trichloropropane	ug/l	GE032 Y Cov	<1.0	-	-	-	<1.0	-	-	-	<1.0	-	-
	n-propylbenzene	ug/l	GE032 Y Cov	<1.0	-	-	-	<1.0	-	-	-	<1.0	-	-
	Bromobenzene	ug/l	GE032 Y Cov	<1.0	-	-	-	<1.0	-	-	-	<1.0	-	-
	2-chlorotoluene	ug/l	GE032 Y Cov	<1.0	-	-	-	<1.0	-	-	-	<1.0	-	-
	1,3,5-trimethylbenzene	ug/l	GE032 Y Cov	<1.0	-	-	-	<1.0	-	-	-	<1.0	-	-
	4-chlorotoluene	ug/l	GE032 Y Cov	<1.0	-	-	-	<1.0	-	-	-	<1.0	-	-

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Report Number: **MID/486085/2008**

Issue **1**

Name: **0750710230**

Group	Determinand	Unit	Method/ Accreditation	Groundwater										
				10373897	10373898	10373899	10373900	10373901	10373902	10373903	10373904	10373905	10373906	
				BH1/07	BH2/07	BH3/07	BH4/07	BH5/07	BH6/07	BH7/07	BH8/07	BHA	LAWLOR	
				14/01/2007	14/01/2007	15/01/2007	15/01/2007	14/01/2007	14/01/2007	15/01/2007	15/01/2007	15/01/2007	15/01/2007	15/01/2007
VOC	tert-butylbenzene	ug/l	GEO32 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
	1,2,4-trimethylbenzene	ug/l	GEO32 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
	iso-butylbenzene	ug/l	GEO32 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
	p-isopropyltoluene	ug/l	GEO32 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
	1,3-dichlorobenzene	ug/l	GEO32 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
	1,4-dichlorobenzene	ug/l	GEO32 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
	n-butylbenzene	ug/l	GEO32 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
	1,2-dichlorobenzene	ug/l	GEO32 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
	1,2-dibromo-3-chloropropane	ug/l	GEO32 Y Cov	<2.0	-	-	-	<2.0	-	-	<2.0	-	-	
	1,2,4-trichlorobenzene	ug/l	GEO32 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
	Hexachlorobutadiene	ug/l	GEO32 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
	Naphthalene	ug/l	GEO32 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
	1,2,3-trichlorobenzene	ug/l	GEO32 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
	MTBE	ug/l	GEO32 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
	Dibromofluoromethane	%Recovery	GEO32 N Cov	94.4	-	-	-	94.9	-	-	91.2	-	-	
	Toluene-d8	%Recovery	GEO32 N Cov	91.2	-	-	-	91.6	-	-	89.2	-	-	
	4-bromofluorobenzene	%Recovery	GEO32 N Cov	88.9	-	-	-	90.0	-	-	88.5	-	-	
SVOC	Phenol	ug/l	GEO40 Y Cov	<2.0	-	-	-	<2.0	-	-	<2.0	-	-	
	Bis(2-chloroethyl) ether	ug/l	GEO40 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
	2-chlorophenol	ug/l	GEO40 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
	1,3-Dichlorobenzene	ug/l	GEO40 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
	1,4-Dichlorobenzene	ug/l	GEO40 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
	2-Methylphenol	ug/l	GEO40 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
	4-Methylphenol	ug/l	GEO40 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
Dibenzofuran	ug/l	GEO40 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-		

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**SEVERN
TRENT** **STL**

Report Number: **MID/486085/2008**
Site Name: **0750710230**

Issue **1**

Group	Determinand	Unit	Method/ Accreditation	Groundwater										
				10373897	10373898	10373899	10373900	10373901	10373902	10373903	10373904	10373905	10373906	
				BH1/07	BH2/07	BH3/07	BH4/07	BH5/07	BH6/07	BH7/07	BH8/07	BHA	LAWLOR	
				14/01/2007	14/01/2007	15/01/2007	15/01/2007	14/01/2007	14/01/2007	15/01/2007	15/01/2007	15/01/2007	15/01/2007	15/01/2007
SVOC	1,2-Dichlorobenzene	ug/l	GEO40 Y Cov	<1.0	-	-	-	<1.0	-	-	-	<1.0	-	-
	bis(2-chloroisopropyl)ether	ug/l	GEO40 Y Cov	<1.0	-	-	-	<1.0	-	-	-	<1.0	-	-
	N-nitrosodi-n-propylamine	ug/l	GEO40 Y Cov	<1.0	-	-	-	<1.0	-	-	-	<1.0	-	-
	Hexachloroethane	ug/l	GEO40 Y Cov	<1.0	-	-	-	<1.0	-	-	-	<1.0	-	-
	Nitrobenzene	ug/l	GEO40 Y Cov	<1.0	-	-	-	<1.0	-	-	-	<1.0	-	-
	Isophorone	ug/l	GEO40 Y Cov	<1.0	-	-	-	<1.0	-	-	-	<1.0	-	-
	2,4-Dimethylphenol	ug/l	GEO40 Y Cov	<2.0	-	-	-	<2.0	-	-	-	<2.0	-	-
	2-Nitrophenol	ug/l	GEO40 Y Cov	<1.0	-	-	-	<1.0	-	-	-	<1.0	-	-
	bis(2-chloroethoxy)methane	ug/l	GEO40 Y Cov	<1.0	-	-	-	<1.0	-	-	-	<1.0	-	-
	2,4-Dichlorophenol	ug/l	GEO40 Y Cov	<1.0	-	-	-	<1.0	-	-	-	<1.0	-	-
	1,2,4-Trichlorobenzene	ug/l	GEO40 Y Cov	<1.0	-	-	-	<1.0	-	-	-	<1.0	-	-
	Naphthalene	ug/l	GEO40 Y Cov	<1.0	-	-	-	<1.0	-	-	-	<1.0	-	-
	Hexachlorobutadiene	ug/l	GEO40 Y Cov	<1.0	-	-	-	<1.0	-	-	-	<1.0	-	-
	4-Chloro-3-MethylPhenol	ug/l	GEO40 Y Cov	<1.0	-	-	-	<1.0	-	-	-	<1.0	-	-
	2-Methylnaphthalene	ug/l	GEO40 Y Cov	<1.0	-	-	-	<1.0	-	-	-	<1.0	-	-
	2,4,6-Trichlorophenol	ug/l	GEO40 Y Cov	<1.0	-	-	-	<1.0	-	-	-	<1.0	-	-
	2,4,5-Trichlorophenol	ug/l	GEO40 Y Cov	<1.0	-	-	-	<1.0	-	-	-	<1.0	-	-
	2-Chloronaphthalene	ug/l	GEO40 Y Cov	<1.0	-	-	-	<1.0	-	-	-	<1.0	-	-
	Dimethyl phthalate	ug/l	GEO40 Y Cov	<1.0	-	-	-	<1.0	-	-	-	<1.0	-	-
	2,6-Dinitrotoluene	ug/l	GEO40 Y Cov	<1.0	-	-	-	<1.0	-	-	-	<1.0	-	-
	Acenaphthylene	ug/l	GEO40 Y Cov	<1.0	-	-	-	<1.0	-	-	-	<1.0	-	-
	Acenaphthene	ug/l	GEO40 Y Cov	<1.0	-	-	-	<1.0	-	-	-	<1.0	-	-
	2,4-Dinitrotoluene	ug/l	GEO40 Y Cov	<1.0	-	-	-	<1.0	-	-	-	<1.0	-	-
	Diethyl phthalate	ug/l	GEO40 Y Cov	<3.0	-	-	-	<3.0	-	-	-	<3.0	-	-
	4-Nitrophenol	ug/l	GEO40 Y Cov	<5.0	-	-	-	<5.0	-	-	-	<5.0	-	-

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Report Number: **MID/486085/2008**

Issue **1**

0897
1229
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Name: **0760710230**

Group	Determinand	Unit	Method/ Accreditation	Groundwater										
				10373897	10373898	10373899	10373900	10373901	10373902	10373903	10373904	10373905	10373906	
				BH1/07	BH2/07	BH3/07	BH4/07	BH5/07	BH6/07	BH7/07	BH8/07	BHA	LAWLOR	
				14/01/2007	14/01/2007	15/01/2007	15/01/2007	14/01/2007	14/01/2007	15/01/2007	15/01/2007	15/01/2007	15/01/2007	15/01/2007
SVOC	4-Chlorophenyl phenylether	ug/l	GEO40 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
	Fluorene	ug/l	GEO40 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
	Diphenylamine	ug/l	GEO40 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
	4-Bromophenyl phenyl ether	ug/l	GEO40 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
	Hexachlorobenzene	ug/l	GEO40 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
	Pentachlorophenol	ug/l	GEO40 Y Cov	<5.0	-	-	-	<5.0	-	-	<5.0	-	-	
	Phenanthrene	ug/l	GEO40 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
	Anthracene	ug/l	GEO40 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
	di-n-Butyl phthalate	ug/l	GEO40 Y Cov	<10.0	-	-	-	<10.0	-	-	<10.0	-	-	
	Fluoranthene	ug/l	GEO40 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
	Pyrene	ug/l	GEO40 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
	Butyl benzyl phthalate	ug/l	GEO40 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
	Benzo(a)anthracene	ug/l	GEO40 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
	Chrysene	ug/l	GEO40 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
	bis(2-ethylhexyl)phthalate	ug/l	GEO40 Y Cov	<10.0	-	-	-	<10.0	-	-	<10.0	-	-	
	di-n-octyl phthalate	ug/l	GEO40 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
	Benzo(b)fluoranthene	ug/l	GEO40 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
	Benzo(k)fluoranthene	ug/l	GEO40 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
	Benzo(e)pyrene	ug/l	GEO40 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
	Indeno(1,2,3-cd)pyrene	ug/l	GEO40 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
	Dibenz(a,h)anthracene	ug/l	GEO40 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
	Benzo(g,h)perylene	ug/l	GEO40 Y Cov	<1.0	-	-	-	<1.0	-	-	<1.0	-	-	
	2-Fluorophenol	%Recovery	GEO40 N Cov	66.5	-	-	-	57.1	-	-	57.3	-	-	
	Phenol-d6	%Recovery	GEO40 N Cov	50.5	-	-	-	48.1	-	-	45.0	-	-	
	Nitrobenzene-d5	%Recovery	GEO40 N Cov	91.5	-	-	-	85.0	-	-	78.7	-	-	

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**SEVERN
TRENT** **STL**

Report Number: **MID/486085/2008**

Issue **1**

Site Name: **0750710230**

Group	Determinand	Unit	Method/ Accreditation	Groundwater										
				10373897	10373898	10373899	10373900	10373901	10373902	10373903	10373904	10373905	10373906	
				BH1/07	BH2/07	BH3/07	BH4/07	BH5/07	BH6/07	BH7/07	BH8/07	BHA	LAWLOR	
				14/01/2007	14/01/2007	15/01/2007	15/01/2007	14/01/2007	14/01/2007	15/01/2007	15/01/2007	15/01/2007	15/01/2007	15/01/2007
SVOC	2-Fluorobiphenyl	%Recovery	GEO40 N Cov	81.2	-	-	-	75.4	-	-	74.3	-	-	
	2,4,6-Tribromophenol	%Recovery	GEO40 N Cov	86.8	-	-	-	80.4	-	-	86.4	-	-	
	Terphenyl-d14	%Recovery	GEO40 N Cov	87.6	-	-	-	85.9	-	-	91.8	-	-	
Other	Arsenic (FILT) ICPMS	mg/l	WAS051 Y Cov	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.009	<0.001	

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Report Number: MID/486085/2008

Issue 1

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Name: 0750710230

Group	Determinand	Unit	Method/ Accreditation	Groundwater	Surface Water		
				10373907	10373908	10373909	
				BALLYGOWAN	SW1	SW2	
				15/01/2007	16/01/2007	16/01/2007	
Metals	Boron in Filtrate as B	mg/l	WAS049 Y Cov	<0.3	<0.3	<0.3	
	Cadmium in Filtrate as Cd	mg/l	WAS049 Y Cov	<0.0005	<0.0005	<0.0005	
	Calcium in Filtrate as Ca	mg/l	WAS049 Y Cov	115	99	96	
	Chromium, Total as Cr	mg/l	WAS049 Y Cov	<0.005	<0.005	<0.005	
	Copper in Filtrate as Cu	mg/l	WAS049 Y Cov	<0.005	0.005	0.005	
	Iron in Filtrate as Fe	mg/l	WAS049 Y Cov	<0.05	<0.05	<0.05	
	Lead in Filtrate as Pb	mg/l	WAS049 Y Cov	<0.005	<0.005	<0.005	
	Magnesium in filtrate as Mg	mg/l	WAS049 Y Cov	5.0	6.8	6.7	
	Manganese in Filtrate as Mn	mg/l	WAS049 Y Cov	0.022	0.022	0.022	
	Mercury in Filtrate as Hg	mg/l	WAS013 Y Cov	<0.0001	<0.0001	<0.0001	
	Nickel in Filtrate as Ni	mg/l	WAS049 Y Cov	<0.005	<0.005	<0.005	
	Potassium in filtrate as K	mg/l	WAS049 Y Cov	0.2	1.0	1.0	
	Sodium in filtrate as Na	mg/l	WAS049 Y Cov	13	14	15	
	Zinc in Filtrate as Zn	mg/l	WAS049 Y Cov	0.020	0.035	0.040	
	Inorganics	pH		WAS039 Y Cov	7.9	8.4	8.4
		Conductivity- Electrical 20C	uS/cm	WAS039 Y Cov	475	465	462
Alkalinity as CaCO3		mg/l	WAS025 Y Cov	348	252	248	
Ammoniacal Nitrogen as N		mg/l	WAS036 Y Cov	<0.3	<0.3	<0.3	
Chloride as Cl		mg/l	WAS036 Y Cov	5	10	11	
Nitrite as N		mg/l	WAS036 Y Cov	<0.1	<0.1	<0.1	
Nitrate as N		mg/l	WAS036 Y Cov	1.8	2.3	2.4	
Nitrogen, Total Oxidised as N		mg/l	WAS036 Y Cov	1.8	2.3	2.4	
Phosphate, Ortho as P		mg/l	WAS036 Y Cov	<0.1	<0.1	<0.1	
Sulphate as SO4		mg/l	WAS036 Y Cov	5	7	6	
Solids, Total diss at 180c		mg/l	WAS010 N Cov	304	-	-	

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Report Number: **MID/486085/2008**

Issue **1**

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Site Name: **0760710230**

Group	Determinand	Unit	Method/ Accreditation	Groundwater		Surface Water	
				10373907	10373908	10373909	
				BALLYGOWAN	SW1	SW2	
				15/01/2007	16/01/2007	16/01/2007	
Inorganics	Solids, Suspended	mg/l	WAS006 Y Cov	-	58	58	
	Dissolved Oxygen, Unfiltered	mg/l	WAS052 N Cov	-	8.9	9.4	
	BOD + ATU (5 day)	mg/l	WAS001 Y Cov	-	<1	<1	
	COD (Total)	mg/l	WAS040 Y Cov	<20	26	<20	
	TOC (Filtered)	mg/l	WAS005 Y Cov	1.7	-	-	
	TOC as C	mg/l	WAS005 Y Cov	-	1.5	1.6	
	Cyanide excluding Iron Cyanide	mg/l	WAS018 Y Cov	<0.1	<0.1	<0.1	
	Cyanide, total as CN	ug/l	WAS018 Y Cov	<10	<10	<10	
	Fluoride as F	mg/l	WAS029 Y Cov	0.1	<0.1	<0.1	
	OP Pesticides	Alazine	ug/l	GEO47 Y Cov	-	<0.020	<0.020
Simazine		ug/l	GEO47 Y Cov	-	<0.020	<0.020	
Acid Herbs	Bromoxynil	ug/l	GEO20 Y Cov	-	<0.05	<0.05	
	Dichlorprop	ug/l	GEO20 Y Cov	-	<0.05	<0.05	
Phenols	2 - Chlorophenol	ug/l	GEO18 Y Cov	-	<1.00	<1.00	
	2,4,6 - Trichlorophenol	ug/l	GEO18 Y Cov	-	<1.00	<1.00	
TPH	Aldrin	ng/l	GEO47 Y Cov	-	<6	<6	
PAH	Acenaphthene	ug/l	GEO19 Y Cov	-	<0.01	<0.01	
	Acenaphthylene	ug/l	GEO19 Y Cov	-	<0.01	<0.01	
	Anthracene	ug/l	GEO19 Y Cov	-	<0.01	<0.01	
	Benzo-e-anthracene	ug/l	GEO19 Y Cov	-	<0.01	<0.01	
	Benzo-g,h,i perylene	ug/l	GEO19 Y Cov	-	<0.01	<0.01	
	Benzo-a-pyrene	ug/l	GEO19 Y Cov	-	<0.01	<0.01	
	Benzo-b-fluoranthene	ug/l	GEO19 Y Cov	-	<0.01	0.01	
	Benzo-k-fluoranthene	ug/l	GEO19 Y Cov	-	0.01	0.02	
	Chrysene	ug/l	GEO19 Y Cov	-	<0.01	<0.01	

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Report Number: MID/486086/2008

Issue 1

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Name: 0750710230

Group	Determinand	Unit	Method/ Accreditation	Groundwater		Surface Water	
				10373907	10373908	10373909	
				BALLYGOWAN	SW1	SW2	
				15/01/2007	16/01/2007	16/01/2007	
PAH	Dibenz-a-h-anthracene	ug/l	GE019 Y Cov	-	<0.01	<0.01	
	Fluoranthene	ug/l	GE019 Y Cov	-	<0.01	<0.01	
	Fluorene	ug/l	GE019 Y Cov	-	<0.01	<0.01	
	Indeno 1,2,3-cd pyrene	ug/l	GE019 Y Cov	-	0.02	0.01	
	Naphthalene	ug/l	GE019 Y Cov	-	0.01	<0.01	
	Phenanthrene	ug/l	GE019 Y Cov	-	<0.01	<0.01	
	Pyrene	ug/l	GE019 Y Cov	-	<0.01	<0.01	
	PAH, Total	ug/l	GE019 Y Cov	-	0.04	0.04	
	VOC	Dichlorodifluoromethane	ug/l	GE032 Y Cov	-	<1.0	<1.0
Chloromethane		ug/l	GE032 Y Cov	-	<1.0	<1.0	
Chloroethane		ug/l	GE032 Y Cov	-	<1.0	<1.0	
Bromomethane		ug/l	GE032 Y Cov	-	<1.0	<1.0	
Trichlorofluoromethane		ug/l	GE032 Y Cov	-	<1.0	<1.0	
1,1-Dichloroethane		ug/l	GE032 Y Cov	-	<1.0	<1.0	
Dichloromethane		ug/l	GE032 Y Cov	-	<1.0	<1.0	
1,1-Dichloroethane		ug/l	GE032 Y Cov	-	<1.0	<1.0	
Cis-1,2-dichloroethane		ug/l	GE032 Y Cov	-	<1.0	<1.0	
2,2-Dichloropropane		ug/l	GE032 Y Cov	-	<1.0	<1.0	
Chloroform		ug/l	GE032 Y Cov	-	<1.0	<1.0	
Bromochloromethane		ug/l	GE032 Y Cov	-	<1.0	<1.0	
1,1,1-Trichloroethane		ug/l	GE032 Y Cov	-	<1.0	<1.0	
1,1-Dichloropropene		ug/l	GE032 Y Cov	-	<1.0	<1.0	
1,2-Dichloroethane		ug/l	GE032 Y Cov	-	<1.0	<1.0	
Benzene	ug/l	GE032 Y Cov	-	<1.0	<1.0		
1,2-Dichloropropane	ug/l	GE032 Y Cov	-	<1.0	<1.0		

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 Analysed at Bri = STL Bridgend, Cov = STL Coventry, Mid = STL Midlands, Rea = STL Reading, Run = STL Runcorn.
 For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered. I/S=Insufficient sample

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Report Number: MID/486085/2008

Issue 1

Site Name: 0750710230

Group	Determinand	Unit	Method/ Accreditation	Groundwater		Surface Water	
				10373907	10373908	10373909	
				BALLYGOWAN	SW1	SW2	
				15/01/2007	16/01/2007	16/01/2007	
VOC	Trichloroethene	ug/l	GE032 Y Cov	-	<1.0	<1.0	
	Bromodichloromethane	ug/l	GE032 Y Cov	-	<1.0	<1.0	
	Dibromomethane	ug/l	GE032 Y Cov	-	<1.0	<1.0	
	Cis-1,3-dichloropropene	ug/l	GE032 Y Cov	-	<1.0	<1.0	
	Toluene	ug/l	GE032 Y Cov	-	<1.0	<1.0	
	Trans-1,3-dichloropropene	ug/l	GE032 Y Cov	-	<1.0	<1.0	
	1,1,2-trichloroethane	ug/l	GE032 Y Cov	-	<1.0	<1.0	
	Carbon Tetrachloride	ug/l	GE032 Y Cov	-	<1.0	<1.0	
	Vinyl Chloride	ug/l	GE032 Y Cov	-	<1.0	<1.0	
	1,3-dichloropropane	ug/l	GE032 Y Cov	-	<1.0	<1.0	
	Tetrachloroethene	ug/l	GE032 Y Cov	-	<1.0	<1.0	
	Dibromochloromethane	ug/l	GE032 Y Cov	-	<1.0	<1.0	
	1,2-dibromoethane	ug/l	GE032 Y Cov	-	<1.0	<1.0	
	Chlorobenzene	ug/l	GE032 Y Cov	-	<1.0	<1.0	
	1,1,1,2-tetrachloroethane	ug/l	GE032 Y Cov	-	<1.0	<1.0	
	Ethyl Benzene	ug/l	GE032 Y Cov	-	<1.0	<1.0	
	m,p-xylene	ug/l	GE032 Y Cov	-	<1.0	<1.0	
	o-xylene	ug/l	GE032 Y Cov	-	<1.0	<1.0	
	Styrene	ug/l	GE032 Y Cov	-	<1.0	<1.0	
	Bromoform	ug/l	GE032 Y Cov	-	<1.0	<1.0	
	Trans-1,2-dichloroethene	ug/l	GE032 Y Cov	-	<1.0	<1.0	
	Isopropylbenzene	ug/l	GE032 Y Cov	-	<1.0	<1.0	
	1,1,2,2-tetrachloroethane	ug/l	GE032 Y Cov	-	<1.0	<1.0	
	1,2,3-trichloropropane	ug/l	GE032 Y Cov	-	<1.0	<1.0	
	n-propylbenzene	ug/l	GE032 Y Cov	-	<1.0	<1.0	

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 Analysed at: Bri = STL Bridgend, Cov = STL Coventry, Mid = STL Midlands, Rea = STL Reading, Run = STL Runcorn.
 For Microbiological determinands D or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered, I/S=Insufficient sample.

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Report Number: MID/486085/2008

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Name: 0760710230

Group	Determinand	Unit	Method/ Accreditation	Groundwater		Surface Water	
				10373907	10373908	10373909	
				BALLYGOWAN	SW1	SW2	
				15/01/2007	16/01/2007	16/01/2007	
VOC	Bromobenzene	ug/l	GEO32 Y Cov	-	<1.0	<1.0	
	2-chlorotoluene	ug/l	GEO32 Y Cov	-	<1.0	<1.0	
	1,3,5-trimethylbenzene	ug/l	GEO32 Y Cov	-	<1.0	<1.0	
	4-chlorotoluene	ug/l	GEO32 Y Cov	-	<1.0	<1.0	
	tert-butylbenzene	ug/l	GEO32 Y Cov	-	<1.0	<1.0	
	1,2,4-trimethylbenzene	ug/l	GEO32 Y Cov	-	<1.0	<1.0	
	sec-butylbenzene	ug/l	GEO32 Y Cov	-	<1.0	<1.0	
	p-isopropyltoluene	ug/l	GEO32 Y Cov	-	<1.0	<1.0	
	1,3-dichlorobenzene	ug/l	GEO32 Y Cov	-	<1.0	<1.0	
	1,4-dichlorobenzene	ug/l	GEO32 Y Cov	-	<1.0	<1.0	
	n-butylbenzene	ug/l	GEO32 Y Cov	-	<1.0	<1.0	
	1,2-dichlorobenzene	ug/l	GEO32 Y Cov	-	<1.0	<1.0	
	1,2-dibromo-3-chloropropane	ug/l	GEO32 Y Cov	-	<2.0	<2.0	
	1,2,4-trichlorobenzene	ug/l	GEO32 Y Cov	-	<1.0	<1.0	
	Hexachlorobutadiene	ug/l	GEO32 Y Cov	-	<1.0	<1.0	
	Naphthalene	ug/l	GEO32 Y Cov	-	<1.0	<1.0	
	1,2,3-trichlorobenzene	ug/l	GEO32 Y Cov	-	<1.0	<1.0	
	MTBE	ug/l	GEO32 Y Cov	-	<1.0	<1.0	
	Dibromofluoromethane	%Recovery	GEO32 N Cov	-	91.7	89.4	
	Toluene-d8	%Recovery	GEO32 N Cov	-	91.2	90.1	
	4-bromofluorobenzene	%Recovery	GEO32 N Cov	-	87.6	87.9	
SVOC	Phenol	ug/l	GEO40 Y Cov	-	<2.0	<2.0	
	Bis(2-chloroethyl) ether	ug/l	GEO40 Y Cov	-	<1.0	<1.0	
	2-chlorophenol	ug/l	GEO40 Y Cov	-	<1.0	<1.0	
	1,3-Dichlorobenzene	ug/l	GEO40 Y Cov	-	<1.0	<1.0	

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 Analysed at: Bri = STL Bridgend, Cov = STL Coventry, Mid = STL Midlands, Rea = STL Reading, Run = STL Runcorn.
 For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered. I/S=Insufficient sample

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Report Number: **MID/486085/2008**

Issue **1**

Site Name: **0750710230**

Group	Determinand	Unit	Method/ Accreditation	Groundwater		Surface Water	
				10373907	10373908	10373909	
				BALLYGOWAN	SW1	SW2	
				15/01/2007	16/01/2007	16/01/2007	
SVOC	1,4-Dichlorobenzene	ug/l	GEO40 Y Cov	-	<1.0	<1.0	
	2-Methylphenol	ug/l	GEO40 Y Cov	-	<1.0	<1.0	
	4-Methylphenol	ug/l	GEO40 Y Cov	-	<1.0	<1.0	
	Dibenzofuran	ug/l	GEO40 Y Cov	-	<1.0	<1.0	
	1,2-Dichlorobenzene	ug/l	GEO40 Y Cov	-	<1.0	<1.0	
	bis(2-chloroisopropyl)ether	ug/l	GEO40 Y Cov	-	<1.0	<1.0	
	N-nitrosodi-n-propylamine	ug/l	GEO40 Y Cov	-	<1.0	<1.0	
	Hexachloroethane	ug/l	GEO40 Y Cov	-	<1.0	<1.0	
	Nitrobenzene	ug/l	GEO40 Y Cov	-	<1.0	<1.0	
	Isophorone	ug/l	GEO40 Y Cov	-	<1.0	<1.0	
	2,4-Dimethylphenol	ug/l	GEO40 Y Cov	-	<2.0	<2.0	
	2-Nitrophenol	ug/l	GEO40 Y Cov	-	<1.0	<1.0	
	bis(2-chloroethoxy)methane	ug/l	GEO40 Y Cov	-	<1.0	<1.0	
	2,4-Dichlorophenol	ug/l	GEO40 Y Cov	-	<1.0	<1.0	
	1,2,4-Trichlorobenzene	ug/l	GEO40 Y Cov	-	<1.0	<1.0	
	Naphthalene	ug/l	GEO40 Y Cov	-	<1.0	<1.0	
	Hexachlorobutadiene	ug/l	GEO40 Y Cov	-	<1.0	<1.0	
	4-Chloro-3-Methylphenol	ug/l	GEO40 Y Cov	-	<1.0	<1.0	
	2-Methylnaphthalene	ug/l	GEO40 Y Cov	-	<1.0	<1.0	
	2,4,6-Trichlorophenol	ug/l	GEO40 Y Cov	-	<1.0	<1.0	
	2,4,5-Trichlorophenol	ug/l	GEO40 Y Cov	-	<1.0	<1.0	
	2-Chloronaphthalene	ug/l	GEO40 Y Cov	-	<1.0	<1.0	
	Dimethyl phthalate	ug/l	GEO40 Y Cov	-	<1.0	<1.0	
	2,6-Dinitrotoluene	ug/l	GEO40 Y Cov	-	<1.0	<1.0	
	Acenaphthylene	ug/l	GEO40 Y Cov	-	<1.0	<1.0	

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Report Number: MID/486085/2008

Issue 1

Name: 0750710230

Group	Determinand	Unit	Method/ Accreditation	Groundwater		Surface Water	
				10373907	10373908	10373909	
				BALLYGOWAN	SW1	SW2	
				15/01/2007	16/01/2007	16/01/2007	
SVOC	Acenaphthene	ug/l	GEO40 Y Cov	-	<1.0	<1.0	
	2,4-Dinitrotoluene	ug/l	GEO40 Y Cov	-	<1.0	<1.0	
	Diethyl phthalate	ug/l	GEO40 Y Cov	-	<3.0	<3.0	
	4-Nitrophenol	ug/l	GEO40 Y Cov	-	<5.0	<5.0	
	4-Chlorophenyl phenylether	ug/l	GEO40 Y Cov	-	<1.0	<1.0	
	Fluorene	ug/l	GEO40 Y Cov	-	<1.0	<1.0	
	Diphenylamine	ug/l	GEO40 Y Cov	-	<1.0	<1.0	
	4-Bromophenyl phenyl ether	ug/l	GEO40 Y Cov	-	<1.0	<1.0	
	Hexachlorobenzene	ug/l	GEO40 Y Cov	-	<1.0	<1.0	
	Pentachlorophenol	ug/l	GEO40 Y Cov	-	<5.0	<5.0	
	Phenanthrene	ug/l	GEO40 Y Cov	-	<1.0	<1.0	
	Anthracene	ug/l	GEO40 Y Cov	-	<1.0	<1.0	
	di-n-Butyl phthalate	ug/l	GEO40 Y Cov	-	<10.0	<10.0	
	Fluoranthene	ug/l	GEO40 Y Cov	-	<1.0	<1.0	
	Pyrene	ug/l	GEO40 Y Cov	-	<1.0	<1.0	
	Butyl benzyl phthalate	ug/l	GEO40 Y Cov	-	<1.0	<1.0	
	Benzo(a)anthracene	ug/l	GEO40 Y Cov	-	<1.0	<1.0	
	Chrysene	ug/l	GEO40 Y Cov	-	<1.0	<1.0	
	bis(2-ethylhexyl)phthalate	ug/l	GEO40 Y Cov	-	<10.0	<10.0	
	di-n-octyl phthalate	ug/l	GEO40 Y Cov	-	<1.0	<1.0	
	Benzo(b)fluoranthene	ug/l	GEO40 Y Cov	-	<1.0	<1.0	
	Benzo(k)fluoranthene	ug/l	GEO40 Y Cov	-	<1.0	<1.0	
	Benzo(a)pyrene	ug/l	GEO40 Y Cov	-	<1.0	<1.0	
	Indeno(1,2,3-cd)pyrene	ug/l	GEO40 Y Cov	-	<1.0	<1.0	
	Dibenz(a,h)anthracene	ug/l	GEO40 Y Cov	-	<1.0	<1.0	

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**SEVERN
TRENT** **STL**

Report Number: **MID/486085/2008**

Issue **1**

Site Name: **0760710230**

Group	Determinand	Unit	Method/ Accreditation	Groundwater		Surface Water	
				10373907	10373908	10373909	
				BALLYGOWAN	SW1	SW2	
				15/01/2007	16/01/2007	16/01/2007	
SVOC	Benzo(ghi)perylene	µg/l	GEO40 Y Cov	-	<1.0	<1.0	
	2-Fluorophenol	%Recovery	GEO40 N Cov	-	55.7	49.9	
	Phenol-d6	%Recovery	GEO40 N Cov	-	46.6	42.1	
	Nitrobenzene-d5	%Recovery	GEO40 N Cov	-	81.7	76.4	
	2-Fluorobiphenyl	%Recovery	GEO40 N Cov	-	77.7	70.0	
	2,4,6-Tribromophenol	%Recovery	GEO40 N Cov	-	89.3	77.2	
	Terphenyl-d14	%Recovery	GEO40 N Cov	-	94.9	81.0	
Other	Arsenic (FILT) ICPMS	mg/l	WAS051 Y Cov	<0.001	<0.001	<0.001	

Signed: <i>L. Ellis</i>	Name: L. Ellis	Date: 05 February 2008
	Title: Team Leader	

Accreditation Codes: Y = UKAS Accredited, N = Not UKAS Accredited, M = MCERTS, S = Sub-contracted.
 Analysed at: Bri = STL Bridgend, Cov = STL Coventry, Mid = STL Midlands, Rea = STL Reading, Run = STL Runcom.
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ANALYST COMMENTS FOR REPORT

MID/486085/2008

Issue 1

Date of Issue: 05 February 2008

Sample No	Analyst Comments
10373897	Cyanide sampled from 1 litre bottle as no fixed subsample available.
10373898	Cyanide sampled from 1 litre bottle as no fixed subsample available.
10373899	Cyanide sampled from 1 litre bottle as no fixed subsample available.
10373900	Cyanide sampled from 1 litre bottle as no fixed subsample available.
10373901	Cyanide sampled from 1 litre bottle as no fixed subsample available.
10373902	Cyanide sampled from 1 litre bottle as no fixed subsample available.
10373903	Cyanide sampled from 1 litre bottle as no fixed subsample available.
10373904	Cyanide sampled from 1 litre bottle as no fixed subsample available.
10373905	Cyanide sampled from 1 litre bottle as no fixed subsample available.
10373906	Cyanide sampled from 1 litre bottle as no fixed subsample available.
10373907	Cyanide sampled from 1 litre bottle as no fixed subsample available.
10373908	Cyanide sampled from 1 litre bottle as no fixed subsample available.
10373909	Cyanide sampled from 1 litre bottle as no fixed subsample available.

Signed: <i>L. Ellis</i>	Name: L. Ellis	Date: 05 February 2008
	Title: Team Leader	

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Sample No.	Description	Determinand	Comments
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Signed: <i>L. Ellis</i>	Name: L. Ellis	Date: 05 February 2008
	Title: Team Leader	

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**Miss Keirns
Golder Associates Ireland
Town Centre House
Dublin Road
Naas Kildare**

23 May 2008

Test Report: COV/507526/2008

Dear Miss Keirns

Analysis of your sample(s) submitted on 14 April 2008 is now complete and we have pleasure in enclosing the appropriate test report(s).

An invoice for the analysis carried out is included with this report.

Should you have any queries regarding this report(s) or any part of our service, please contact Customer Services on +44 (0)24 7642 1213 who will be happy to discuss your requirements.

If you would like to arrange any further analysis, please contact Customer Services. To arrange container delivery or sample collection, please call the Couriers Department directly on 024 7685 6562.

Thank you for using STL and we look forward to receiving your next samples.

Yours Sincerely,

Signed: *L. Ellis*

Name: L. Ellis

Title: Team Leader

STL Coventry

STL Business Centre, Torrington Avenue,
Coventry, CV4 9GU

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Fax: +44 (0)24 7685 6575

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Report Summary

Miss Pamela Keirns
Golder Associates Ireland
Town Centre House
Dublin Road
Naas
Kildare



SEVERN
TRENT **STL**

Date of Issue: 23 May 2008

Report Number: **COV/507526/2008** Issue: **9**

Number of Samples included in this report	11	Site Name:	Golder Associates Ireland
Number of Test Results included in this report	270	Job Received:	14 April 2008
		Analysis Commenced:	14 April 2008
		Order No:	3347

Signed:

L. Ellis

Name: L. Ellis

Date: 23 May 2008

Title: Team Leader

STL was not responsible for sampling unless otherwise stated. Sampling is not covered by our UKAS accreditation.
Information on the methods of analysis and performance characteristics are available on request.
Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.
Tests marked 'Not UKAS Accredited' in this Report/Certificate are not included in the UKAS Accreditation Schedule for our laboratory.

Severn Trent Laboratories Ltd.

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Certificate of Analysis



Report Number: **COV/507526/2008** Issue **9**
 Name: **Golder Associates Ireland**

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Group	Determinand	Unit	Method/ Accreditation	Groundwater										
				10517227	10517228	10517229	10517230	10517231	10517232	10517233	10517234	10517235	10517236	
				B/A	B/H	B/S	B/E	B/H	B/H	B/H	Ballygowan	Lawlor	SW1	
Microbiology	Total Coliforms confirmed	cfu/100ml	W10 Y Cov	-	-	-	-	-	-	-	-	-	-	>100
	Total Coliform presumpt	cfu/100ml	W10 Y Cov	-	-	-	-	-	-	-	-	-	-	>100
Metals	Boron, ultra-low total as B	ug/l	WAS060 Y Cov	15.3	14.8	24.8	18.4	17.1	13.7	16.6	11.9	30.8	13.7	
	Cadmium in Filtrate as Cd	mg/l	WAS049 Y Cov	<0.0005	0.0069	<0.0005	<0.0005	0.0130	<0.0005	0.0006	0.0008	<0.0005	<0.0005	<0.0005
	Calcium, Total as Ca	mg/l	WAS049 Y Cov	116	341	141	77	700	117	266	171	123	112	
	Chromium, Total as Cr	mg/l	WAS049 Y Cov	<0.005	0.039	<0.005	<0.005	0.077	<0.005	0.013	0.005	<0.005	<0.005	<0.005
	Copper in Filtrate as Cu	mg/l	WAS049 Y Cov	<0.005	0.024	<0.005	<0.005	0.071	<0.005	0.005	<0.005	<0.005	<0.005	<0.005
	Lead in Filtrate as Pb	mg/l	WAS049 Y Cov	<0.005	0.036	0.028	0.027	0.007	<0.005	0.009	0.007	<0.005	<0.005	<0.005
	Magnesium, Total as Mg	mg/l	WAS049 Y Cov	14	29	15	12	48	15	23	11	9.4	8.6	
	Manganese in Filtrate as Mn	mg/l	WAS049 Y Cov	0.32	2.06	0.12	0.11	4.92	0.19	0.63	0.37	0.052	0.12	
	Mercury in Filtrate as Hg	mg/l	WAS013 Y Cov	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Nickel in Filtrate as Ni	mg/l	WAS049 Y Cov	<0.005	0.072	<0.005	<0.005	0.16	<0.005	0.014	0.008	<0.005	<0.005	<0.005
	Potassium, Total as K	mg/l	WAS049 Y Cov	2.3	2.7	1.5	2.6	5.9	2.0	2.7	0.9	1.4	0.9	
	Sodium, Total as Na	mg/l	WAS049 Y Cov	6.0	14	15	17	24	18	17	12	15	14	
	Zinc in Filtrate as Zn	mg/l	WAS049 Y Cov	0.009	0.15	0.015	0.013	0.33	0.017	0.045	0.023	0.014	0.013	
	Inorganics	pH	pH Units	WAS039 Y Cov	6.7	6.8	7.0	7.4	6.8	7.2	7.2	7.2	7.5	7.6
Conductivity- Electrical 20C		uS/cm	WAS039 Y Cov	544	586	590	376	717	477	563	525	518	420	
Ammoniacal Nitrogen as N		mg/l	WS044 Y Cov	5.78	0.04	<0.04	<0.04	<0.04	0.10	<0.04	<0.04	<0.04	<0.04	<0.04
Chloride as Cl		mg/l	WAS036 Y Cov	5	13	11	9	10	10	12	7	8	10	
Nitrite as N		mg/l	WAS036 Y Cov	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrate as N		mg/l	WAS036 Y Cov	<0.3	0.3	4.2	1.0	2.3	1.2	2.6	2.2	1.8	2.6	
Orthophosphate as P		ug/l	SBC 5 Y Bri	519	<4	8	6	<4	18	<4	<4	11	9	
Sulphate as SO4		mg/l	WAS036 Y Cov	<5	<5	6.9	10.2	5.5	8.1	20.8	<5	10.6	10.5	
Solids, Total diss.at 180c		mg/l	WAS010 N Cov	360	386	386	248	465	316	386	345	351	-	
Solids, Suspended		mg/l	WAS006 Y Cov	-	-	-	-	-	-	-	-	-	-	104

Accreditation Codes: Y = UKAS Accredited, N = Not UKAS Accredited, M = MCERTS, S = Sub-contracted.
 Analysed at: Bri = STL Bridgend, Cov = STL Coventry, Mid = STL Midlands, Rea = STL Reading, Run = STL Runcorn.
 For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered, IS=Insufficient sample

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Report Number: **COV/507526/2008** Issue **9**
Site Name: **Golder Associates Ireland**

Group	Determinand	Unit	Method/ Accreditation	Groundwater										
				10517227 BHA	10517228 BH1	10517229 BH3	10517230 BH5	10517231 BH6	10517232 BH7	10517233 BH8	10517234 Ballygowan	10517235 Lawlor	10517236 SW1	
Inorganics	Cyanide Free as CN	mg/l	WAS018 Y Cov	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Other	Arsenic (FILT) ICPMS	mg/l	WAS051 Y Cov	0.010	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Faecal Coliforms mtsb	cfu/100ml	W28 Y Cov	-	-	-	-	-	-	-	-	-	-	82

Accreditation Codes: Y = UKAS Accredited, N = Not UKAS Accredited, M = MCERTS, S = Sub-contracted.
Analysed at: Bri = STL Bridgend, Cov = STL Coventry, Mid = STL Midlands, Rea = STL Reading, Run = STL Runcom.
For Microbiological determinands D or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered. US=Insufficient sample.

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Report Number: **COV/507526/2008** Issue **9**

Name: **Golder Associates Ireland**

					Groundwater	
					10517237	
					SW2	
Group	Determinand	Unit	Method/ Accreditation			
Microbiology	Total Coliforms confirmed	cfu/100ml	W10 Y Cov		>100	
	Total Coliform presumpt	cfu/100ml	W10 Y Cov		>100	
Metals	Boron, ultra-low total as B	ug/l	WAS060 Y Cov		14.1	
	Cadmium in Filtrate as Cd	mg/l	WAS049 Y Cov		<0.0005	
	Calcium, Total as Ca	mg/l	WAS049 Y Cov		102	
	Chromium, Total as Cr	mg/l	WAS049 Y Cov		<0.005	
	Copper in Filtrate as Cu	mg/l	WAS049 Y Cov		<0.005	
	Lead in Filtrate as Pb	mg/l	WAS049 Y Cov		<0.005	
	Magnesium, Total as Mg	mg/l	WAS049 Y Cov		7.9	
	Manganese in Filtrate as Mn	mg/l	WAS049 Y Cov		0.052	
	Mercury in Filtrate as Hg	mg/l	WAS013 Y Cov		<0.0001	
	Nickel in Filtrate as Ni	mg/l	WAS049 Y Cov		<0.005	
	Potassium, Total as K	mg/l	WAS049 Y Cov		0.8	
	Sodium, Total as Na	mg/l	WAS049 Y Cov		14	
	Zinc in Filtrate as Zn	mg/l	WAS049 Y Cov		<0.005	
	Inorganics	pH	pH Units	WAS039 Y Cov		7.6
		Conductivity- Electrical 20C	uS/cm	WAS039 Y Cov		400
Ammoniacal Nitrogen as N		mg/l	WS044 Y Cov		<0.04	
Chloride as Cl		mg/l	WAS036 Y Cov		9	
Nitrite as N		mg/l	WAS036 Y Cov		<0.1	
Nitrate as N		mg/l	WAS036 Y Cov		2.4	
Orthophosphate as P		ug/l	SBC 5 Y Bri		6	
Sulphate as SO4		mg/l	WAS038 Y Cov		10.1	
Solids, Suspended		mg/l	WAS006 Y Cov		23	
Cyanide Free as CN		mg/l	WAS018 Y Cov		<0.1	

Accreditation Codes: Y = UKAS Accredited, N = Not UKAS Accredited, M = MCERTS, S = Sub-contracted.
 Analysed at: Bri = STL Bridgford, Cov = STL Coventry, Mid = STL Midlands, Rea = STL Reading, Run = STL Runcom.
 For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered, /S=insufficient sample

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Report Number: **COV/507526/2008** Issue **9**
Site Name: **Golder Associates Ireland**

Group	Determinand	Unit	Method/ Accreditation	Groundwater	
				10517237	SW2
Other	Arsenic (FILT) ICPMS	mg/l	WAS051 Y Cov	<0.001	
	Faecal Coliforms mlsb	clu/100ml	W26 Y Cov	59	

Signed: *L. Ellis*

Name: **L. Ellis**

Date: **23 May 2008**

Title: **Team Leader**

Accreditation Codes: Y = UKAS Accredited, N = Not UKAS Accredited, M = MCERTS, S = Sub-contracted.
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For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered. IS=Insufficient sample.

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ANALYST COMMENTS FOR REPORT **COV/507526/2008**

Issue 9

Date of Issue: 23 May 2008

Sample No	Analyst Comments
10517227	Metals, Chloride, Nitrite, Nitrate and ammonia taken from the fixed low level metals bottle.
10517228	Metals, Chloride, Nitrite, Nitrate and ammonia taken from the fixed low level metals bottle.
10517229	Metals, Chloride, Nitrite, Nitrate and ammonia taken from the fixed low level metals bottle.
10517230	Metals, Chloride, Nitrite, Nitrate and ammonia taken from the fixed low level metals bottle.
10517231	Metals, Chloride, Nitrite, Nitrate and ammonia taken from the fixed low level metals bottle.
10517232	Metals, Chloride, Nitrite, Nitrate and ammonia taken from the fixed low level metals bottle.
10517233	Metals, Chloride, Nitrite, Nitrate and ammonia taken from the fixed low level metals bottle.
10517234	Metals, Chloride, Nitrite, Nitrate and ammonia taken from the fixed low level metals bottle.
10517235	Metals, Chloride, Nitrite, Nitrate and ammonia taken from the fixed low level metals bottle.
10517236	Metals, Chloride, Nitrite, Nitrate and ammonia taken from the fixed low level metals bottle.
10517237	Metals, Chloride, Nitrite, Nitrate and ammonia taken from the fixed low level metals bottle.

Signed: <i>L. Ellis</i>	Name: L. Ellis	Date: 23 May 2008
	Title: Team Leader	

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Sample No	Description	Determinand	Comments
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Signed: <i>L. Ellis</i>	Name: L. Ellis	Date: 23 May 2008
	Title: Team Leader	

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