

Lab Sample ID	18/08822/22	18/08822/27	18/08822/28	18/08822/30	18/08822/35	18/08822/39	18/08822/40		
Client Sample No	106	101	102	104	109	104	105		
Client Sample ID	WS1	WS3	WS3	WS3	WS3	WS4	WS4		
Depth to Top	2.90	0.20	0.60	1.30	3.60	0.90	1.10		
Depth To Bottom									
Date Sampled	16-Oct-18	16-Oct-18	16-Oct-18	16-Oct-18	16-Oct-18	16-Oct-18	16-Oct-18		*
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES		Method ref
Sample Matrix Code	3		4AB	5	3	4A	4A	Units	Meth
PAH-16MS									
Acenaphthene _A ^{M#}	-	-	<0.01	-	-	-	<0.01	mg/kg	A T 019s
Acenaphthylene _A M#	-	-	0.02	-	-	-	<0.01	mg/kg	A T 019s
Anthracene _A M#	-	-	0.02	-	-	-	0.06	mg/kg	A T 019s
Benzo(a)anthracene AM#	-	-	0.24	-	-	-	0.22	mg/kg	A T 019s
Benzo(a)pyrene _A M#	-	-	0.22	-	-	-	0.12	mg/kg	A T 019s
Benzo(b)fluoranthene _A ^{M#}	-		0.28	•	-	•	0.17	mg/kg	A T 019s
Benzo(ghi perylene _A M#	-		0.11	•	-	•	<0.05	mg/kg	A T 019s
Benzo(k)fluoranthene _A M#	-	•	0.09	•	-	•	<0.07	mg/kg	A T 019s
Chrysene _A ^{M#}	-	•	0.25	•	-	•	0.19	mg/kg	A T 019s
Dibenzo(ah)anthracene _A M#	-		<0.04	-	-	•	<0.04	mg/kg	A T 019s
Fluoranthene A ^{M#}	-	•	0.29	•	-	•	0.42	mg/kg	A T 019s
Fluorene _A M#	-	-	<0.01	-	-	-	<0.01	mg/kg	A T 019s
Indeno(123-cd)pyrene A ^{M#}	-	-	0.15	-	-	-	0.06	mg/kg	A T 019s
Naphthalene _A M#	-	-	<0.03	-	-	-	<0.03	mg/kg	A T 019s
Phenanthrene _A M#	-	-	0.11	-	-	-	0.42	mg/kg	A T 019s
Pyrene _A ^{M#}	-	•	0.24	•	-	•	0.29	mg/kg	A T 019s
Total PAH-16MS _A ^{M#}	-	•	2.02	•	-	•	1.95	mg/kg	A T 019s
TPH Banded 1 with ID									
>C6-C8 _A ^{M#}	-		<5	•	-	•	<5	mg/kg	A T 007s
>C8-C10 _A ^{M#}	-	-	<1	-	-	-	32	 mg/kg	A T 007s
>C10-C12 _A ^{M#}	-	-	<1	-	-	-	<1	 mg/kg	A T 007s
>C12-C16 _A ^{M#}	-	-	<2	-	-	-	<2	mg/kg	A T 007s
>C16-C21 _A ^{M#}	-	-	5	-	-	-	12	mg/kg	A T 007s
>C21-C40 _A #	-	-	26	-	-	-	141	mg/kg	A T 007s
TPH ID (for FID characterisations) _A	-	-	Unknown profile	-	-	-	Possible PAHs + other unknown heavier hydrocarbon s		A T 007s
Total TPH Banded 1 with ID _A	-	-	31	-	-	-	185	mg/kg	A T 007s



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Lab Sample ID	18/08822/22	18/08822/27	18/08822/28	18/08822/30	18/08822/35	18/08822/39	18/08822/40		
Client Sample No	106	101	102	104	109	104	105		
Client Sample ID	WS1	WS3	WS3	WS3	WS3	WS4	WS4		
Depth to Top	2.90	0.20	0.60	1.30	3.60	0.90	1.10		
Depth To Bottom									
Date Sampled	16-Oct-18	16-Oct-18	16-Oct-18	16-Oct-18	16-Oct-18	16-Oct-18	16-Oct-18		Į
Sample Type	Soil - ES	Soil - ES		od re					
Sample Matrix Code	3		4AB	5	3	4A	4A	Units	Method ref
VOC									
Dichlorodifluoromethane _A	-	-	-	<1	-	<1	-	μg/kg	A T 006s
Chloromethane _A	-	-	-	<10	-	<10	-	μg/kg	A T 006s
Vinyl Chloride _A #	-	-	-	<1	-	<1	-	μg/kg	A T 006s
Bromomethane _A #	-	-	-	<1	-	<1	-	μg/kg	A T 006s
Chloroethane _A #	-	-	-	<1	-	<1	-	μg/kg	A T 006s
Trichlorofluoromethane _A #	-	-	-	<1	-	<1	-	μg/kg	A T 006s
1,1-Dichloroethene _A #	-	-	-	<1	-	<1	-	μg/kg	A T 006s
Carbon Disulphide _A #	-	-	-	3	-	<1	-	μg/kg	A T 006s
Dichloromethane _A	-	-	-	<5	-	<5	-	μg/kg	A T 006s
trans 1,2-Dichloroethene _A #	-	-	-	<1	-	<1	-	μg/kg	A T 006s
1,1-Dichloroethane _A #	-	-	-	<1	-	<1	-	μg/kg	A T 006s
cis 1,2-Dichloroethene A#	-	-	-	<1	-	<1	-	μg/kg	A T 006s
2,2-Dichloropropane _A #	-	-	-	<1	-	<1	-	μg/kg	A T 006s
Bromochloromethane _A #	-	-	-	<5	-	<5	-	μg/kg	A T 006s
Chloroform _A #	-	-	-	<1	-	<1	-	μg/kg	A T 006s
1,1,1-Trichloroethane _A #	-	-	-	<1	-	<1	-	μg/kg	A T 006s
1,1-Dichloropropene _A #	-	-	-	<1	-	<1	-	μg/kg	A T 006s
Carbon Tetrachloride A#	-	-	-	<1	-	<1	-	μg/kg	A T 006s
1,2-Dichloroethane _A #	-	-	-	<2	-	<2	-	μg/kg	A T 006s
Benzene _A #	-	-	-	<1	-	<1	-	μg/kg	A T 006s
Trichloroethene _A #				<1		<1	-	μg/kg	A T 006s
1,2-Dichloropropane _A #				<1		<1	-	μg/kg	A T 006s
Dibromomethane _A #	-	-	-	<1	-	<1	-	 μg/kg	A T 006s
Bromodichloromethane _A #	-	-	-	<10	-	<10	-	μg/kg	A T 006s
cis 1,3-Dichloropropene A#	-	-	-	<1	-	<1	-	 μg/kg	A T 006s
Toluene A#	-	-	-	<1	-	<1	-	 μg/kg	A T 006s
trans 1,3-Dichloropropene _A #	-	-	-	<1	-	<1	-	 μg/kg	A T 006s
1,1,2-Trichloroethane _A #	-	-	-	<1	-	<1	-	 μg/kg	A T 006s
1,3-Dichloropropane _A #	-	-	-	<1	-	<1	-	 μg/kg	A T 006s
Tetrachloroethene _A #	-	-	-	<1	-	<1	-	 μg/kg	A T 006s
Dibromochloromethane _A #	-	-	-	<3	-	<3	-	 μg/kg	A T 006s
1,2-Dibromoethane _A #	-	-	-	<1	-	<1	-	μg/kg	A T 006s



Lab Sample ID 18/08822/22 18/08822/27 18/08822/28 18/08822/30 18/08822/35 18/08822/39 18/08822/39 18/08822/40 Client Sample No 106 101 102 104 109 104 105 Client Sample ID WS1 WS3 WS3 WS3 WS4 WS4		
Client Sample ID WS1 WS3 WS3 WS3 WS4 WS4		
Depth to Top 2.90 0.20 0.60 1.30 3.60 0.90 1.10		
Depth To Bottom		
Date Sampled 16-Oct-18 16-Oct-18 16-Oct-18 16-Oct-18 16-Oct-18 16-Oct-18 16-Oct-18		Į.
Sample Type Soil - ES		Method ref
Sample Matrix Code 3 4AB 5 3 4A 4A	Units	Meth
Chlorobenzene [#] <1 - <1 -	μg/kg	A T 006s
1,1,1,2-Tetrachloroethane _A <1 - <1 -	μg/kg	A T 006s
Ethylbenzene [#] <1 - <1 -	μg/kg	A T 006s
m & p Xylene A <1 - <1 -	μg/kg	A T 006s
o-Xylene _A # <1 - <1 -	μg/kg	A T 006s
Styrene _A # <1 - <1 -	μg/kg	A T 006s
Bromoform _A # <1 - <1 -	μg/kg	A T 006s
Isopropylbenzene _A # <1 - <1 -	μg/kg	A T 006s
1,1,2,2-Tetrachloroethane _A <1 - <1 -	μg/kg	A T 006s
1,2,3-Trichloropropane _A # <1 - <1 -	μg/kg	A T 006s
Bromobenzene _A # <1 - <1 -	μg/kg	A T 006s
n-Propylbenzene _A # <1 - <1 -	μg/kg	A T 006s
2-Chlorotoluene _A # <1 - <1 -	μg/kg	A T 006s
1,3,5-TrimethylbenzeneA# <1 - <1 -	μg/kg	A T 006s
4-Chlorotoluene _A # <1 - <1 -	μg/kg	A T 006s
tert-Butylbenzene _A # <2 - <2 -	μg/kg	A T 006s
1,2,4-Trimethylbenzene _A # <1 - <1 -	μg/kg	A T 006s
sec-Butylbenzene _A # <1 - <1 -	μg/kg	A T 006s
4-IsopropyItoluene _A # <1 - <1 -	μg/kg	A T 006s
1,3-Dichlorobenzene _A <1 - <1 -	μg/kg	A T 006s
1,4-Dichlorobenzene _A # <1 - <1 -	μg/kg	A T 006s
n-Butylbenzene _A # <1 - <1 -	μg/kg	A T 006s
1,2-Dichlorobenzene _A # <1 - <1 -	μg/kg	A T 006s
1,2-Dibromo-3-chloropropane _A <2 - <2 -	μg/kg	A T 006s
1,2,4-Trichlorobenzene _A <3 - <3 -	μg/kg	A T 006s
Hexachlorobutadiene A <1 - <1 -	μg/kg	A T 006s
1,2,3-Trichlorobenzene _A <3 - <3 -	μg/kg	A T 006s



Lab Sample ID	18/08822/22	18/08822/27	18/08822/28	18/08822/30	18/08822/35	18/08822/39	18/08822/40		
Client Sample No	106	101	102	104	109	104	105		
Client Sample ID	WS1	WS3	WS3	WS3	WS3	WS4	WS4		
Depth to Top	2.90	0.20	0.60	1.30	3.60	0.90	1.10		
Depth To Bottom									
Date Sampled	16-Oct-18		<u>.</u>						
Sample Type	Soil - ES		Method ref						
Sample Matrix Code	3		4AB	5	3	4A	4A	Units	Meth
TPH CWG									
Ali >C5-C6 _A #	<0.01	-	-	-	<0.01	-	-	mg/kg	A T 022s
Ali >C6-C8 _A #	<0.01	-	-	-	<0.01	-	-	mg/kg	A T 022s
Ali >C8-C10 _A M#	<1	-	-	-	<1	-	-	mg/kg	A T 055s
Ali >C10-C12 _A M#	<1	-	-	-	<1	-	-	mg/kg	A T 055s
Ali >C12-C16 _A M#	<1	-	-	-	<1	-	-	mg/kg	A T 055s
Ali >C16-C21A ^{M#}	<1	-	-	-	<1	-	-	mg/kg	A T 055s
Ali >C21-C35 _A	4	-	-	-	1	-	-	mg/kg	A T 055s
Total Aliphatics >C5-C35 _A	4	-	-	-	1	-	-	mg/kg	A T 055s
Aro >C5-C7 _A #	<0.01	-	•	-	<0.01	•	•	mg/kg	A T 022s
Aro >C7-C8 _A #	<0.01	-	•	-	<0.01	•	•	mg/kg	A T 022s
Aro >C8-C10 _A ^{M#}	<1	-	•	-	<1	•	•	mg/kg	A T 055s
Aro >C10-C12 _A ^{M#}	<1	-	-	-	<1	-	-	mg/kg	A T 055s
Aro >C12-C16 _A	<1	-	-	-	<1	-	-	mg/kg	A T 055s
Aro >C16-C21A ^{M#}	<1	-	-	-	<1	-	-	mg/kg	A T 055s
Aro >C21-C35AM#	1	-	-	-	<1	-	-	mg/kg	A T 055s
Total Aromatics >C5-C35 _A	1	-	•	-	<1	•	•	mg/kg	A T 055s
TPH (Ali & Aro >C5-C35)A	5	-	•	-	1	•	•	mg/kg	A T 055s
BTEX - Benzene _A #	<0.01	-	•	-	<0.01	•		mg/kg	A T 022s
BTEX - Toluene _A #	<0.01	-	-	-	<0.01	-	-	mg/kg	A T 022s
BTEX - Ethyl Benzene _A #	<0.01	-	-	-	<0.01	-	-	 mg/kg	A T 022s
BTEX - m & p Xylene _A #	<0.01	-	-	-	<0.01	-	-	mg/kg	A T 022s
BTEX - o Xylene _A #	<0.01	-	-	-	<0.01	-	-	mg/kg	A T 022s
MTBE _A #	<0.01	-	-	-	<0.01	-	-	mg/kg	A T 022s



REPORT NOTES

General:

This report shall not be reproduced, except in full, without written approval from Envirolab.

All samples contained within this report, and any received with the same delivery, will be disposed of one month after the date of this report.

Analytical results reflect the quality of the sample at the time of analysis only.

Opinions and interpretations expressed are outside the scope of our accreditation.

If results are in italic font they are associated with an AQC failure, these are not accredited and are unreliable.

A deviating samples report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.

Soil chemical analysis:

All results are reported as dry weight (<40°C).

For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (vis ble glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as '% stones >10mm'.

For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any "A" subscripts All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any "D" subscripts.

TPH analysis of water by method A-T-007:

Free and vis ble oils are excluded from the sample used for analysis so that the reported result represents the dissolved phase only.

Electrical Conductivity of water by Method A-T-037:

Results greater than 12900µS/cm @ 25°C / 11550µS/cm @ 20°C fall outside the cal bration range and as such are unaccredited.

Asbestos

Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete f bres/fragments in the original sample.

Stones etc. are not removed from the sample prior to analysis.

Quantification of asbestos is a 3 stage process including visual identification, hand picking and weighing and fibre counting by sedimentation/phase contrast optical microscopy if required. If asbestos is identified as being present but is not in a form that is suitable for analysis by hand picking and weighing (normally if the asbestos is present as free fibres) quantification by sedimentation is performed. Where ACMs are found a percentage asbestos is assigned to each with reference to 'HSG264, Asbestos: The survey guide' and the calculated asbestos content is expressed as a percentage of the dried soil sample aliquot used.

Predominant Matrix Codes:

1 = SAND, 2 = LOAM, 3 = CLAY, 4 = LOAM/SAND, 5 = SAND/CLAY, 6 = CLAY/LOAM, 7 = OTHER, 8 = Asbestos bulk ID sample. Samples with Matrix Code 7 & 8 are not predominantly a SAND/LOAM/CLAY mix and are not covered by our BSEN 17025 or MCERTS accreditations, with the exception of bulk asbestos which are BSEN 17025 accredited.

Secondary Matrix Codes:

A = contains stones, B = contains construction rubble, C = contains visible hydrocarbons, D = contains glass/metal, E = contains roots/twigs.

Key:

IS indicates Insufficient Sample for analysis.

US indicates Unsuitable Sample for analysis.

NDP indicates No Determination Possible.

NAD indicates No Asbestos Detected.

N/A indicates Not Applicable.

Superscript # indicates method accredited to ISO 17025.

Superscript "M" indicates method accredited to MCERTS.

Subscript "A" indicates analysis performed on the sample as received.

Subscript "D" indicates analysis performed on the dried sample, crushed to pass a 2mm sieve

Please contact us if you need any further information.



FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 18/09444

Issue Number: Date: 23 November, 2018

Client: Structural Soils Limited (Bristol)

> The Old School Stillhouse Lane Bedminster Bristol

UK

BS3 4EB

Project Manager: Adam Watts/enviro@soils.co.uk/Jonathan Evans

Project Name: Former Lombard Service Station, Bristol

Project Ref: 733272 **Order No:** N/A

Date Samples Received: 09/11/18 **Date Instructions Received:** 12/11/18 **Date Analysis Completed:** 23/11/18

Prepared by: Approved by:

Melanie Marshall

Richard Wong **Laboratory Coordinator** Client Manager





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Lab Sample ID	18/09444/1	18/09444/2	18/09444/3	18/09444/4	18/09444/5	18/09444/6			
Client Sample No	101	101	101	101	101	101			
Client Sample ID	WS4	WS1	BH1	BH2	ВН3	WS3			
Depth to Top	1.30	2.70	2.70	3.30	3.30	2.90			
Depth To Bottom									
Date Sampled	07-Nov-18	07-Nov-18	07-Nov-18	07-Nov-18	07-Nov-18	07-Nov-18			
Sample Type	Water - EW			od re					
Sample Matrix Code	N/A	N/A	N/A	N/A	N/A	N/A		Units	Method ref
pH (w) _A #	-	-	7.77	7.46	7.22	-		рН	A T 031w
Hardness Total [#]	-	-	398	331	421	-		mg/l Ca CO3	A T 049w
Sulphate (w) _A #	-	-	108	76	30	-		mg/l	A T 026w
DOC (w) _A #	-	-	34.9	41.1	8.0	-		mg/l	A T 032w
Arsenic (dissolved) _A #	-	-	7	19	6	-		μg/l	A T 025w
Cadmium (dissolved) _A #	-	-	<0.2	<0.2	<0.2	-		μg/l	A T 025w
Calcium (dissolved) _A #	-	-	123	74	92	-		mg/l	A T 049w
Copper (dissolved) _A #	-	-	10	6	13	-		μg/l	A T 025w
Chromium (dissolved) _A #	-	-	<1	<1	1	-		μg/l	A T 025w
Lead (dissolved) _A #	-	-	1	<1	<1	-		μg/l	A T 025w
Mercury (dissolved) _A #	-	-	<0.1	<0.1	<0.1	-		μg/l	A T 025w
Nickel (dissolved) _A #	-	-	3	2	6	-		μg/l	A T 025w
Selenium (dissolved) _A #	-	-	<1	<1	<1	-		μg/l	A T 025w
Zinc (dissolved) _A #	-	-	5	2	4	-		μg/l	A T 025w
Ali >C5-C6 (w) _A #	<1	<1	<1	2	<1	<1		μg/l	A T 022w
Ali >C6-C8 (w) _A #	<1	<1	<1	1	<1	<1		μg/l	A T 022w
Ali >C8-C10 (w) _A #	-	-	-	-	-	<1		μg/l	A T 022w
Aro >C5-C7 (w) _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 022w
Aro >C7-C8 (w) _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 022w
Aro >C8-C9 (w) _A #	-	-	-	-	-	<1		μg/l	A T 022w
Aro >C9-C10 (w) _A #	-	-	-	-	-	<1		μg/l	A T 022w
BTEX - Benzene (w) _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 022w
BTEX - Toluene (w) _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 022w
BTEX - Ethyl Benzene (w) _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 022w
BTEX - m & p Xylene (w) _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 022w
BTEX - o Xylene (w) _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 022w
MTBE (w) _A #	<1	<1	<1	2	<1	<1		μg/l	A T 022w



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Lab Sample ID	18/09444/1	18/09444/2	18/09444/3	18/09444/4	18/09444/5	18/09444/6			
Client Sample No	101	101	101	101	101	101			
Client Sample ID	WS4	WS1	BH1	BH2	внз	WS3			
Depth to Top	1.30	2.70	2.70	3.30	3.30	2.90			
Depth To Bottom									
Date Sampled	07-Nov-18	07-Nov-18	07-Nov-18	07-Nov-18	07-Nov-18	07-Nov-18			
Sample Type	Water - EW			Method ref					
Sample Matrix Code	N/A	N/A	N/A	N/A	N/A	N/A		Units	Meth
PAH 16MS (w)									
Acenaphthene (w) _A #	-	-	<0.01	<0.01	<0.01	-		μg/l	A T 019w
Acenaphthylene (w) _A #	-	-	<0.01	<0.01	<0.01	-		μg/l	A T 019w
Anthracene (w) _A #	-	•	<0.01	<0.01	<0.01	-		μg/l	A T 019w
Benzo(a)anthracene (w) _A #	-	•	<0.01	<0.01	<0.01	•		μg/l	A T 019w
Benzo(a)pyrene (w) _A #	-	•	<0.01	<0.01	<0.01	•		μg/l	A T 019w
Benzo(b)fluoranthene (w)A#	-	•	<0.01	<0.01	<0.01	•		μg/l	A T 019w
Benzo(ghi)perylene (w) _A #	-	•	<0.01	<0.01	<0.01	•		μg/l	A T 019w
Benzo(k)fluoranthene (w) _A #	-	•	<0.01	<0.01	<0.01	•		μg/l	A T 019w
Chrysene (w) _A #	-	•	<0.01	<0.01	<0.01	•		μg/l	A T 019w
Dibenzo(ah)anthracene (w) _A #	-	•	<0.01	<0.01	<0.01	•		μg/l	A T 019w
Fluoranthene (w) _A #	-	•	0.01	<0.01	<0.01	•		μg/l	A T 019w
Fluorene (w) _A #	-	•	0.01	<0.01	<0.01	•		μg/l	A T 019w
Indeno(123-cd)pyrene (w) _A #	-	-	<0.01	<0.01	<0.01	-		μg/l	A T 019w
Naphthalene (w) _A #	-	-	<0.01	<0.01	<0.01	-		μg/l	A T 019w
Phenanthrene (w) _A #	-	-	0.04	0.01	<0.01	-		μg/l	A T 019w
Pyrene (w) _A #	-	-	0.02	<0.01	<0.01	-		μg/l	A T 019w
Total PAH 16MS (w) _A #	-	•	0.08	0.01	<0.01	-		μg/l	A T 019w



		,	,	1		ect itel. 73			1
Lab Sample ID	18/09444/1	18/09444/2	18/09444/3	18/09444/4	18/09444/5	18/09444/6			
Client Sample No	101	101	101	101	101	101			
Client Sample ID	WS4	WS1	BH1	BH2	ВН3	WS3			
Depth to Top	1.30	2.70	2.70	3.30	3.30	2.90			
Depth To Bottom									
Date Sampled	07-Nov-18	07-Nov-18	07-Nov-18	07-Nov-18	07-Nov-18	07-Nov-18			į.
Sample Type	Water - EW			od re					
Sample Matrix Code	N/A	N/A	N/A	N/A	N/A	N/A		Units	Method ref
VOC (w)									
Dichlorodifluoromethane _A	<1	<1	<1	<1	<1	<1		μg/l	A T 006w
Chloromethane _A	<10	<10	<10	<10	<10	<10		μg/l	A T 006w
Vinyl Chloride _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 006w
Bromomethane _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 006w
Chloroethane _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 006w
Trichlorofluoromethane _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 006w
trans 1,2-Dichloroethene _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 006w
Dichloromethane _A	<5	<5	<5	<5	<5	<5		μg/l	A T 006w
Carbon Disulphide _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 006w
1,1-Dichloroethene _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 006w
1,1-Dichloroethane _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 006w
cis 1,2-Dichloroethene _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 006w
Bromochloromethane _A #	<5	<5	<5	<5	<5	<5		μg/l	A T 006w
Chloroform _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 006w
2,2-Dichloropropane _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 006w
1,2-Dichloroethane _A #	<2	<2	<2	<2	<2	<2		μg/l	A T 006w
1,1,1-Trichloroethane _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 006w
1,1-Dichloropropene _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 006w
Benzene _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 006w
Carbon Tetrachloride _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 006w
Dibromomethane _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 006w
1,2-Dichloropropane _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 006w
Bromodichloromethane _A #	<10	<10	<10	<10	<10	<10		μg/l	A T 006w
Trichloroethene _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 006w
cis 1,3-Dichloropropene _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 006w
trans 1,3-Dichloropropene _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 006w
1,1,2-Trichloroethane _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 006w
Toluene _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 006w
1,3-Dichloropropane _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 006w
Dibromochloromethane _A #	<3	<3	<3	<3	<3	<3		μg/l	A T 006w
1,2-Dibromoethane _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 006w
Tetrachloroethene _A	<1	<1	<1	<1	<1	<1		μg/l	A T 006w



					Chefit 1 10	ject Ref: 73	3212		
Lab Sample ID	18/09444/1	18/09444/2	18/09444/3	18/09444/4	18/09444/5	18/09444/6			
Client Sample No	101	101	101	101	101	101			
Client Sample ID	WS4	WS1	BH1	BH2	ВН3	WS3			
Depth to Top	1.30	2.70	2.70	3.30	3.30	2.90			
Depth To Bottom									
Date Sampled	07-Nov-18	07-Nov-18	07-Nov-18	07-Nov-18	07-Nov-18	07-Nov-18			<u>.</u>
Sample Type	Water - EW	Water - EW			Method ref				
Sample Matrix Code	N/A	N/A	N/A	N/A	N/A	N/A		Units	Meth
1,1,1,2-Tetrachloroethane _A	<1	<1	<1	<1	<1	<1		μg/l	A T 006w
Chlorobenzene _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 006w
Ethylbenzene _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 006w
m & p Xylene _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 006w
Bromoform _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 006w
Styrene _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 006w
1,1,2,2-Tetrachloroethane _A	<1	<1	<1	<1	<1	<1		μg/l	A T 006w
o-Xylene _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 006w
1,2,3-Trichloropropane _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 006w
Isopropylbenzene _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 006w
Bromobenzene _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 006w
2-Chlorotoluene _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 006w
n-propylbenzene _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 006w
4-Chlorotoluene _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 006w
1,2,4-Trimethylbenzene _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 006w
4-Isopropyltoluene _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 006w
1,3,5-Trimethylbenzene _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 006w
1,2-Dichlorobenzene _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 006w
1,4-Dichlorobenzene _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 006w
sec-Butylbenzene _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 006w
tert-Butylbenzene _A #	<2	<2	<2	<2	<2	<2		μg/l	A T 006w
1,3-Dichlorobenzene _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 006w
n-butylbenzene _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 006w
1,2-Dibromo-3-chloropropane _A #	<2	<2	<2	<2	<2	<2		μg/l	A T 006w
1,2,4-Trichlorobenzene _A #	<3	<3	<3	<3	<3	<3	_	μg/l	A T 006w
1,2,3-Trichlorobenzene _A #	<3	<3	<3	<3	<3	<3		μg/l	A T 006w
Hexachlorobutadiene _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 006w



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Lab Sample ID	18/09444/1	18/09444/2	18/09444/3	18/09444/4	18/09444/5	18/09444/6			
Client Sample No	101	101	101	101	101	101			
Client Sample ID	WS4	WS1	ВН1	BH2	ВН3	WS3			
Depth to Top	1.30	2.70	2.70	3.30	3.30	2.90			
Depth To Bottom									
Date Sampled	07-Nov-18	07-Nov-18	07-Nov-18	07-Nov-18	07-Nov-18	07-Nov-18			5
Sample Type	Water - EW		,,	Method ref					
Sample Matrix Code	N/A	N/A	N/A	N/A	N/A	N/A		Units	Meth
TPH CWG (w)									
Ali >C8-C10 (w) _A #	12	<5	<5	8	<5	-		μg/l	A T 055w
Ali >C10-C12 (w) _A #	<5	<5	<5	<5	<5	-		μg/l	A T 055w
Ali >C12-C16 (w) _A #	<5	<5	<5	<5	<5	-		μg/l	A T 055w
Ali >C16-C21 (w) _A #	6	<5	<5	<5	<5	-		μg/l	A T 055w
Ali >C21-C35 (w) _A #	118	<5	<5	<5	<5	-		μg/l	A T 055w
Total Aliphatics >C5-C35 (w)A#	136	<5	<5	8	<5	-		μg/l	A T 055w
Aro >C8-C10 (w) _A	27	<5	<5	22	<5	-		μg/l	A T 055w
Aro >C10-C12 (w) _A #	<5	<5	<5	12	<5	-		μg/l	A T 055w
Aro >C12-C16 (w) _A #	<5	<5	<5	5	<5	-		μg/l	A T 055w
Aro >C16-C21 (w) _A #	5	5	6	<5	<5	-		μg/l	A T 055w
Aro >C21-C35 (w) _A #	27	<10	<10	<10	<10	-		μg/l	A T 055w
Total Aromatics >C5-C35 (w) _A	59	<10	<10	39	<10	-		μg/l	A T 055w
TPH (Ali & Aro >C5-C35) (w) _A	195	<10	<10	47	<10	-		μg/l	A T 055w



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If results are in italic font they are associated with an AQC failure, these are not accredited and are unreliable.

A deviating samples report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.

Soil chemical analysis:

All results are reported as dry weight (<40°C).

For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as '% stones >10mm'.

For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any "A" subscripts All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any "D" subscripts.

TPH analysis of water by method A-T-007:

Free and visible oils are excluded from the sample used for analysis so that the reported result represents the dissolved phase only.

Electrical Conductivity of water by Method A-T-037:

Results greater than 12900µS/cm @ 25°C / 11550µS/cm @ 20°C fall outside the calibration range and as such are unaccredited.

Asbestos:

Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete fibres/fragments in the original sample.

Stones etc. are not removed from the sample prior to analysis.

Quantification of asbestos is a 3 stage process including visual identification, hand picking and weighing and fibre counting by sedimentation/phase contrast optical microscopy if required. If asbestos is identified as being present but is not in a form that is suitable for analysis by hand picking and weighing (normally if the asbestos is present as free fibres) quantification by sedimentation is performed. Where ACMs are found a percentage asbestos is assigned to each with reference to 'HSG264, Asbestos: The survey guide' and the calculated asbestos content is expressed as a percentage of the dried soil sample aliquot used.

Predominant Matrix Codes:

1 = SAND, 2 = LOAM, 3 = CLAY, 4 = LOAM/SAND, 5 = SAND/CLAY, 6 = CLAY/LOAM, 7 = OTHER, 8 = Asbestos bulk ID sample. Samples with Matrix Code 7 & 8 are not predominantly a SAND/LOAM/CLAY mix and are not covered by our BSEN 17025 or MCERTS accreditations, with the exception of bulk asbestos which are BSEN 17025 accredited.

Secondary Matrix Codes:

A = contains stones, B = contains construction rubble, C = contains vis ble hydrocarbons, D = contains glass/metal, E = contains roots/twigs.

Key:

IS indicates Insufficient Sample for analysis.

US indicates Unsuitable Sample for analysis.

NDP indicates No Determination Poss ble.

NAD indicates No Asbestos Detected.

N/A indicates Not Applicable.

Superscript # indicates method accredited to ISO 17025.

Superscript "M" indicates method accredited to MCERTS.

Subscript "A" indicates analysis performed on the sample as received.

Subscript "D" indicates analysis performed on the dried sample, crushed to pass a 2mm sieve

Please contact us if you need any further information.



FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 18/10696

Issue Number: 1 **Date:** 02 January, 2019

Client: Structural Soils Limited (Bristol)

The Old School Stillhouse Lane Bedminster Bristol

UK

BS3 4EB

Project Manager: Adam Watts/enviro@soils.co.uk **Project Name:** Former Lombard Service Station

Project Ref: 733272 Order No: N/A

Date Samples Received: 14/12/18
Date Instructions Received: 18/12/18
Date Analysis Completed: 02/01/19

Prepared by: Approved by:

Elisha Hartley Admin Assistant Danielle Brierley Client Manager





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Lab Sample ID	18/10696/1	18/10696/2	18/10696/3	18/10696/4	18/10696/5	18/10696/6			
Client Sample No	1	1	1	1	1	1			
Client Sample ID	BH1	BH2	ВН3	WS1	WS3	WS4			
Depth to Top	1.95	2.90	3.05	2.10	1.70	1.35			
Depth To Bottom									
Date Sampled	13-Dec-18	13-Dec-18	13-Dec-18	13-Dec-18	13-Dec-18	13-Dec-18			Į
Sample Type	Water - EW			Method ref					
Sample Matrix Code	N/A	N/A	N/A	N/A	N/A	N/A		Units	Meth
TPH CWG (w)									
Ali >C5-C6 (w) _A #	2	2	<1	<1	<1	<1		μg/l	A T 022w
Ali >C6-C8 (w) _A #	17	2	<1	<1	<1	<1		μg/l	A T 022w
Ali >C8-C10 (w) _A #	56	18	<5	<5	<5	6		μg/l	A T 055w
Ali >C10-C12 (w) _A #	62	6	<5	<5	<5	<5		μg/l	A T 055w
Ali >C12-C16 (w) _A #	21	<5	<5	<5	<5	56		μg/l	A T 055w
Ali >C16-C21 (w) _A #	<5	<5	<5	<5	<5	65		μg/l	A T 055w
Ali >C21-C35 (w) _A #	6	<5	<5	<5	<5	44		μg/l	A T 055w
Total Aliphatics (w) _A #	164	28	<5	<5	<5	171		μg/l	A T 055w
Aro >C5-C7 (w) _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 022w
Aro >C7-C8 (w) _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 022w
Aro >C8-C10 (w) _A	472	59	<5	<5	<5	24		μg/l	A T 055w
Aro >C10-C12 (w) _A #	169	54	<5	<5	<5	21		μg/l	A T 055w
Aro >C12-C16 (w) _A #	132	41	<5	<5	<5	21		μg/l	A T 055w
Aro >C16-C21 (w) _A #	20	8	<5	<5	<5	12		μg/l	A T 055w
Aro >C21-C35 (w) _A #	13	22	<10	<10	<10	22		μg/l	A T 055w
Total Aromatics (w) _A	806	185	<10	<10	<10	99		μg/l	A T 055w
TPH (Ali & Aro >C5-C35) (w)A	970	213	<10	<10	<10	270		μg/l	A T 055w
BTEX - Benzene (w) _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 022w
BTEX - Toluene (w) _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 022w
BTEX - Ethyl Benzene (w) _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 022w
BTEX - m & p Xylene (w) _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 022w
BTEX - o Xylene (w) _A #	<1	<1	<1	<1	<1	<1		μg/l	A T 022w
MTBE (w) _A #	<1	2	<1	<1	<1	<1		μg/l	A T 022w



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Soil chemical analysis:

All results are reported as dry weight (<40°C).

For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as '% stones >10mm'.

For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any "A" subscripts All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any "D" subscripts.

TPH analysis of water by method A-T-007:

Free and visible oils are excluded from the sample used for analysis so that the reported result represents the dissolved phase only.

Electrical Conductivity of water by Method A-T-037:

Results greater than 12900µS/cm @ 25°C / 11550µS/cm @ 20°C fall outside the calibration range and as such are unaccredited.

Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete f bres/fragments in the original sample.

Stones etc. are not removed from the sample prior to analysis.

Quantification of asbestos is a 3 stage process including visual identification, hand picking and weighing and f bre counting by sedimentation/phase contrast optical microscopy if required. If asbestos is identified as being present but is not in a form that is suitable for analysis by hand picking and weighing (normally if the asbestos is present as free fibres) quantification by sedimentation is performed. Where ACMs are found a percentage asbestos is assigned to each with reference to 'HSG264, Asbestos: The survey guide' and the calculated asbestos content is expressed as a percentage of the dried soil sample aliquot used.

Predominant Matrix Codes:

1 = SAND, 2 = LOAM, 3 = CLAY, 4 = LOAM/SAND, 5 = SAND/CLAY, 6 = CLAY/LOAM, 7 = OTHER, 8 = Asbestos bulk ID sample. Samples with Matrix Code 7 & 8 are not predominantly a SAND/LOAM/CLAY mix and are not covered by our BSEN 17025 or MCERTS accreditations, with the exception of bulk asbestos which are BSEN 17025 accredited.

Secondary Matrix Codes:

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NAD indicates No Asbestos Detected. N/A indicates Not Applicable.

Superscript # indicates method accredited to ISO 17025.

Superscript "M" indicates method accredited to MCERTS.

Subscript "A" indicates analysis performed on the sample as received.

Subscript "D" indicates analysis performed on the dried sample, crushed to pass a 2mm sieve

Please contact us if you need any further information.

Please enter available data in the rows associated with the test (grey) cells. Calculation cells initially display either "0.0000" or "#DIV/0!". If any calculation cells below state "0.00000", testing has NOT been undertaken that contributes to that Hazardous Property.

Haswaste developed by Dr. lain Haslock.

733272 - Former Lombard Service Station, Bristol

TP/WS/BH		BH1	BH1	BH1	BH2	BH3	BH3	WS1	WS1	WS1
Depth (m)		0.70	1.40	2.70	0.30	0.50	1.00	0.30	0.80	2.90
Envirolab reference		18/08822/1	18/08822/3	18/08822/6	18/08822/7	18/08822/13	18/08822/14	18/08822/17	18/08822/18	18/08822/22
% Moisture	%	16.7			14.0		22.8	13.1		1
	70	9.47			10.05	l.	9.31	10.25		-
pH (soil)		9.47			10.05		9.31	10.25		
pH (leachate)										
Arsenic	mg/kg	18			16		27	16		
Cadmium	mg/kg	0.9			2.1		7.9	3.0		
Copper	mg/kg	65			61		89	48		
CrVI or Chromium	mg/kg	19			17		19	19		
Lead	mg/kg	839			290		442	221		
Mercury	mg/kg	1.58			1.05		2.46	1.07		
Nickel	mg/kg	25 1			23 1		34 1	17 1		
Selenium	mg/kg	207			229		210	202		
Zinc	mg/kg	207			229		210	202		
Barium	mg/kg									
Beryllium	mg/kg									
Vanadium	mg/kg									
Cobalt	mg/kg									
Manganese	mg/kg									
Molybdenum	mg/kg								+	
Antimony Aluminium	mg/kg mg/kg					1				
Bismuth	mg/kg	1							1	
CrIII	mg/kg	1							1	
Iron	mg/kg	1							1	
Strontium	mg/kg	1							1	
Tellurium	mg/kg	1							1	
Thallium	mg/kg	1							1	
Titanium	mg/kg	1							1	
Tungsten	mg/kg	1							1	
Ammoniacal N	mg/kg					İ				
ws Boron	mg/kg	1							1	
PAH (Input Total PAH OR individu		•							·	
		0.04			0.04	I	0.00	0.00		1
Acenaphthene	mg/kg	0.01			0.01		0.02	0.02	1	
Acenaphthylene	mg/kg	0.01			0.02		0.01	0.03		
Anthracene	mg/kg	0.02			0.04		0.08	0.06		
Benzo(a)anthracene	mg/kg	0.08			0.33		0.50	0.31		
Benzo(a)pyrene	mg/kg	0.09			0.44		0.57	0.38		
Benzo(b)fluoranthene	mg/kg	0.11			0.54		0.68	0.46		
Benzo(ghi)perylene	mg/kg	0.05			0.31		0.29	0.31		
Benzo(k)fluoranthene	mg/kg	0.07			0.18		0.19	0.14		
Chrysene	mg/kg	0.09			0.38		0.54	0.40		
Dibenzo(ah)anthracene	mg/kg	0.04			0.07		0.08	0.05		
Fluoranthene	mg/kg	0.11			0.53		0.86	0.72		
Fluorene	mg/kg	0.01			0.01		0.02	0.02		
Indeno(123cd)pyrene	mg/kg	0.06			0.39		0.37	0.28		
Naphthalene	mg/kg	0.03			0.03		0.03	0.03		
Phenanthrene	mg/kg	0.05			0.20		0.41	0.43		
Pyrene	mg/kg	0.09			0.46		0.74	0.61		
Coronene	mg/kg									
Total PAHs (16 or 17)	mg/kg									
	3 3					ı				
TPH			1	1		1			, ,	
Petrol	mg/kg	1				Ì			1	
Diesel	mg/kg	I							1	
Lube Oil	mg/kg					<u> </u>			<u> </u>	
Crude Oil	mg/kg									
White Spirit / Kerosene										i
Creosote	mg/kg	-				 				
Unknown TPH with ID	mg/kg	52.0			129.0	1	133.0	1,030.0		
	mg/kg	52.0			129.0	I ·	100.0	1,000.0		
Unknown TPHCWG	mg/kg			1.0		l				5.0
Total Sulphide	mg/kg									
Complex Cyanide	mg/kg									
Free (or Total) Cyanide	mg/kg									
Thiocyanate	mg/kg									
Elemental/Free Sulphur	mg/kg									
Phenois Input Total Phenois HPL										
results.										
Phenol	mg/kg									
Cresols	mg/kg	1				Ì			1	
Xylenols	mg/kg	1							1	
Resourcinol	mg/kg	1							1	
Phenois Total by HPLC	mg/kg									
BTEX Input Total BTEX OR individ										
Benzene	mg/kg									1
Toluene	mg/kg	1				Ì			1	
Ethylbenzene	mg/kg	1							1]
		1							1	
Xylenes Total BTEY	mg/kg	-				 				
Total BTEX	mg/kg	L				l			<u>. </u>	j
PCBs (POPs)	-									
PCBs Total (eg EC7/WHO12)	mg/kg									
PBBs (POPs)										
Hexabromobiphenyl (Total or			1	1		l			1	1
PBB153; 2,2',4,4',5,5'- if only	mg/kg	1							1	
available)	mg/kg	1							1	

CIIVIIO

Please enter available data in the rows associated with the test (grey) cells. Calculation cells initially display either "0.0000" or "#DIV/0!". If any calculation cells below state "0.00000", testing has NOT been undertaken that contributes to that Hazardous Property.

Haswaste, developed by Dr. lain Haslock.								
733272 - Former Lombard Service Station, Bristol								

TP/WS/BH
Depth (m)
Envirolab reference

BH1	BH1	BH1	BH2	BH3	BH3	WS1	WS1	WS1
0.70	1.40	2.70	0.30	0.50	1.00	0.30	0.80	2.90
18/08822/1	18/08822/3	18/08822/6	18/08822/7	18/08822/13	18/08822/14	18/08822/17	18/08822/18	18/08822/22

POPs Dioxins and Furans Input Total Dioxins and Furans OR individual Dioxin and Furan results.

1,2,3,7,8-PeCDD 1,2,3,4,7,8-HxCDD 1,2,3,4,6,7,8-HxCDD 1,2,3,4,6,7,8-HpCDD OCDD 2,3,7,8-PeCDF 1,2,3,4,7,8-PeCDF 1,2,3,4,7,8-HxCDF 1,2,3,4,7,8-HxCDF 1,2,3,4,7,8-HxCDF 1,2,3,4,7,8-HxCDF 1,2,3,4,7,8-HxCDF 1,2,3,4,7,8-HxCDF 1,2,3,4,7,8-HxCDF 1,2,3,4,7,8-HyCDF 1,2,3,4,7,8-HyCDF 1,2,3,4,7,8-HpCDF 1,2,3,4,7	2,3,7,8-TeCDD
1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,7,8,9-HxCDD 0CDD 2,3,7,8-FeCDF 1,2,3,7,8-PeCDF 1,2,3,4,7,8-HxCDF 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 1,2,3,4,6,7,8-HxCDF 1,2,3,4,6,7,8-HxCDF 1,2,3,4,6,7,8-HyCDF 1,2,3,4,6,7,8-HyCDF	1,2,3,7,8-PeCDD
1,2,3,7,8,9-HxCDD 1,2,3,4,6,7,8-HpCDD OCDD 2,3,7,8-TeCDF 1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 1,2,3,6,7,8-HxCDF 1,2,3,4,6,7,8-HyCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,6,7,8-HpCDF	1,2,3,4,7,8-HxCDD
1,2,3,4,6,7,8-HpCDD OCDD 2,3,7,8-TeCDF 1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 1,2,3,4,6,7,8-HxCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,7,8,9-HpCDF OCDF	1,2,3,6,7,8-HxCDD
OCDD 2,3.7.8-TeCDF 1,2.3.7.8-PeCDF 2,3.4.7.8-PeCDF 1,2.3.4.7.8-HxCDF 1,2.3.6.7.8-HxCDF 2,3.4.6.7.8-HxCDF 1,2.3.4.6.7.8-HxCDF 1,2.3.4.6.7.8-HpCDF 1,2.3.4.6.7.8-HpCDF 0CDF	1,2,3,7,8,9-HxCDD
2,3,7,8-TeCDF 1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 1,2,3,6,7,8-HxCDF 1,2,3,7,8,9-HxCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,6,7,8-HpCDF OCDF	1,2,3,4,6,7,8-HpCDD
1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,7,8,9-HxCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,7,8,9-HpCDF OCDF	OCDD
2,3,4,7,8-PeCDF 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,7,8,9-HxCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,7,8,9-HpCDF OCDF	2,3,7,8-TeCDF
1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,7,8,9-HxCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,7,8,9-HpCDF OCDF	1,2,3,7,8-PeCDF
1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,7,8,9-HxCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,7,8,9-HpCDF OCDF	2,3,4,7,8-PeCDF
2,3,4,6,7,8-HxCDF 1,2,3,7,8,9-HxCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,7,8,9-HpCDF OCDF	1,2,3,4,7,8-HxCDF
1,2,3,7,8,9-HxCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,7,8,9-HpCDF OCDF	1,2,3,6,7,8-HxCDF
1,2,3,4,6,7,8-HpCDF 1,2,3,4,7,8,9-HpCDF OCDF	2,3,4,6,7,8-HxCDF
1,2,3,4,7,8,9-HpCDF OCDF	1,2,3,7,8,9-HxCDF
OCDF	1,2,3,4,6,7,8-HpCDF
	1,2,3,4,7,8,9-HpCDF
Total Diovine and Eurane	OCDF
Total Dioxilis and Fulans	Total Dioxins and Furans

nd Furans					
mg/kg					

Some Pesticides (POPs unless otherwise stated)

Aldrin
α Hexachlorocyclohexane (alpha-
HCH) (leave empty if total HCH
results used)
β Hexachlorocyclohexane (beta-
HCH) (leave empty if total HCH
results used)
α Cis-Chlordane (alpha) OR
Total Chlordane
δ Hexachlorocyclohexane (delta-
HCH) (leave empty if total HCH
results used)
Dieldrin
Endrin
χ Hexachlorocyclohexane
(gamma-HCH) (lindane) OR
Total HCH
Heptachlor
Hexachlorobenzene
o,p'-DDT (leave empty if total
DDT results used)
p,p'-DDT OR Total DDT
χ Trans-Chlordane (gamma)
(leave empty if total Chlordane
results used)
Chlordecone (kepone)
Pentachlorobenzene
Mirex
Toxaphene (camphechlor)
Tin
Tin (leave empty if Organotin
and Tin excl Organotin results
used)
Organotin
Dibutyltin; DiBT

Tributyltin; TriBT
Triphenyltin; TriPT

Tin excl Organotin

Tetrabutyltin TeBT
Tin excluding Organotin

ed)					
mg/kg					
mg/kg					
mg/kg					
mg/kg					

CHVIIO

Haswaste, developed by Dr. lain Haslock.

733272 - Former Lombard Service Station, Bristol

TP/WS/BH Depth (m) Envirolab reference

Asbestos in Soil

Asbestos detected in Soil (enter Y or N)

Thresholds

Y

Asbestos % Composition in Soil (Matrix Loose Fibres or Microscopic Identifiable Pieces only)

Carcinogenic HP7 % Asbestos in Soil (fibres or micro pieces)

Please be advised, if the calculation cell is "0.00000" DOES NOT MEAN asbestos testing has been undertaken and the result is zero.

Asbestos Identifiable Pieces visible with the naked eye detected in the Soil (enter Y or N)

Please enter available data in the rows associated with the test (grey) cells. Calculation cells initially display either "0.0000" or "#DIV/0!". If any calculation cells below state "0.00000", testing has NOT been undertaken that contributes to that Hazardous Property.

BH1	BH1	BH1	BH2	BH3	BH3	WS1	WS1	WS1
0.70	1.40	2.70	0.30	0.50	1.00	0.30	0.80	2.90
18/08822/1	18/08822/3	18/08822/6	18/08822/7	18/08822/13	18/08822/14	18/08822/17	18/08822/18	18/08822/22

N	N		N	N	N	N	N	
		If A	sbestos in Soil above i	s "Y", the soil is Hazard	dous Waste HP5 and I	IP7		
0.00000	0.00000	0.00000	0.00000	0.0000	0.00000	0.00000	0.0000	0.00000

If Asbestos in Soil above is "Y", but Asbestos % above is "<0.1%", the so I is Non Hazardous Waste. You can only use Asbestos % results where loose fibres or micro pieces are only present. You cannot use Asbestos % results when visual identifiable pieces are present.

If visual identifiable pieces of asbestos are present, you cannot use Asbestos % results and the whole soil sample is Hazardous Waste HP5 and HP7 Construction material containing Asbestos 17 06 05.

Therefore, if Asbestos in Soil above is "Y", the Asbestos % above is "<0.1%", but the Asbestos Identifiable Pieces vis ble with the naked eye is "Y", the so I is Hazardous Waste.

Identifiable Pieces are Cement, Fragments, Board, Rope etc. ie anything ACM that is not Loose Fibres.

Heard of Company The work The color before the protein and p				All visual asb	estos pieces need to b	e removed leaving only	fibres (or micro piece	s) wth an Asbestos %	Compostion in Soil res	sult of <0.1% for the so	il to become non-haza	rdous waste.
Image: PR4	Hazardous Property	Thresholds	Cut Off Value			If cells below turn ye	ellow and the text tur	ns red, the samples s	hould be classified a	s Hazardous Waste.		
Intrant HP4		≥5%	<1%	0.00502	0.00000				0.00557	0.00501		0.00000
Secretar Target Organ Toxicity 11% Special Target Organ Toxicity	Irritant HP4	≥10%	<1%	0.00810	0.00000			0.00000			0.00000	0.00000
Produces Irritant HP4	≥20%	<1%	0.01034	0.00000	0.00000	0.00999	0.00000	0.01316	0.00780	0.00000	0.00000	
Process Proc		≥1%		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Pige		≥20%		0.00000	0.00000	0.00000	0.00002	0.00000	0.00003	0.00004	0.00000	0.00000
Agriation Toxicky HPS		≥1%		0.00421	0.00000	0.00000	0.00400	0.00000	0.00530	0.00317	0.00000	0.00000
Acute Toxicity HP6		≥10%		0.06989	0.00000	0.00010	0.02494	0.00000	0.03412	0.08951	0.00000	0.00050
Aquet Toxicity HPG	Aspiration Toxicity HP5	≥10%		0.00433	0.00000	0.00010	0.01109	0.00000	0.01027	0.08951	0.00000	0.00050
Acute Toxicity HP6	Acute Toxicity HP6		<0.1%		0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
Acute Toxicity HPB	Acute Toxicity HP6	≥0.25%										
Acute Toxicity HP6												
Acute Toxicity HPG												
Acute Toxicity HP6												
Acute Toxicity HP6												
Acute Toxicity H96												
Acute Toxicity HP6												
Acute Toxicity HP6												
Acute Toxicity HP6												
Carcinogenic HP7												
Carcinogenic HP7			<1%									
Carcinogenic HP7												
A332 0.00 0.00 110.94 0.00 102.68 895.07 0.00 0.00												
A		≥1%		0.00000	0.00000	0.00000	0.00003	0.00000	0.00003	0.00002	0.00000	0.00000
Cult only applicable if TPH >1,000mg/kg		≥1,000mg/kg		43.32	0.00	0.00	110.94	0.00	102.68	895.07	0.00	0.00
Second S	(Unknown TPH with ID only)	≥0.01%		0.14417	#DIV/0!	#DIV/0!	0.29333	#DIV/0!	0.33086	0.03206	#DIV/0!	#DIV/0!
ieachate 16 ≥ 2 9.7 0.00 0.00 10.05 0.00 9.31 10.25 0.00 0.0000		H8 ≥11.5		9.47	0.00	0.00	10.05	0.00	9.31	10.25	0.00	0.00
Toxic for Reproduction HP10 23% 0.00043 0.00000 0.0010 0.01109 0.00000 0.01027 0.08951 0.00000 0.00050		H8 ≤2		9.47	0.00	0.00	10.05	0.00	9.31	10.25	0.00	0.00
Mutagenic HP11 with Donnyl Cell only applicable if TP1 Unknown TPH vith Donnyl Cell only applicable if TP1 1000mg/kg ≥0.01% with D = 1,000mg/kg 0.00304 0.00000 0.00010 0.00010 0.00281 0.00000 0.00282 0.00317 0.00000 0.000500 0.00050 0.00050 0.00050 0.00050 0.00050 0.00050 0.00050 0.00050 0.0	Toxic for Reproduction HP10	≥0.3%										
Mutagenic HP11 Unknown TPH with D D ≥1,000mg/kg with D 43.32 0.00 0.00 110.94 0.00 102.68 895.07 0.00 0.00 Mutagenic HP11 b(a)p marker lest (Unknown TPH with ID only) Cell only applicable if TPH >1,000mg/kg ≥0.01% 20.01% #DIV/0! #DIV/0! 0.29333 #DIV/0! 0.33086 0.03206 #DIV/0! #DIV/0! Mutagenic HP11 Produces Toxic Gases HP12 Sulphide ≥1,400mg/kg 0.00421 0.00000 0.00000 0.00000 0.00400 0.00000 0.00530 0.0298 0.00000 0.00000 Produces Toxic Gases HP12 Cyanide ≥1,200mg/kg 0.0 <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>												
with D 21,00mg/sg 43.32 0.00 0.00 110.94 0.00 102.68 895.07 0.00 0.00 Mutagenic HP11 (Unknown TPH with ID only) Cell only applicable if TPH >1,000mg/kg ≥0.01% #DIV/0! #DIV/0! 0.29333 #DIV/0! 0.33086 0.03206 #DIV/0! #DIV/0! Mutagenic HP11 produces Toxic Gases HP12 sulphide ≥1,400mg/kg 0.00421 0.00000 0.00000 0.00400 0.00000 0.00530 0.00298 0.00000 0.00000 Produces Toxic Gases HP12 Cyanide ≥1,200mg/kg 0.0 <		≥0.1%		0.00304	0.00000	0.00010	0.00281	0.00000	0.00282	0.00317	0.00000	0.00050
Cell only applicable if TPH >1,000mg/kg Cell only applicable if TPH		≥1,000mg/kg		43.32	0.00	0.00	110.94	0.00	102.68	895.07	0.00	0.00
Produces Toxic Gases HP12 Sulphide ≥1,400mg/kg 0.0	(Unknown TPH with ID only)	≥0.01%		0.14417	#DIV/0!	#DIV/0!	0.29333	#DIV/0!	0.33086	0.03206	#DIV/0!	#DIV/0!
Produces Toxic Gases HP12 Sulphide 21,400mg/kg 0.0	Mutagenic HP11	≥1%	1	0.00421	0.00000	0.00000	0.00400	0.00000	0.00530	0.00298	0.00000	0.00000
Produces Toxic Gases HP12 Cyanide 21,200mg/kg 0.0	Produces Toxic Gases HP12											
Produces Toxic Gases HP12 Thiocyanate 22,600mg/kg 0.0	Produces Toxic Gases HP12	≥1,200mg/kg		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Produces Toxic Gases HP12	≥2,600mg/kg		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	HP13 Sensitising	≥10%	1	0.00421	0.00000	0.00000	0.00400	0.00000	0.00530	0.00317	0.00000	0.00000

Please enter available data in the rows associated with the test (grey) cells. Calculation cells initially display either "0.0000" or "#DIV/0!". If any calculation cells below state "0.00000", testing has NOT been undertaken that contributes to that Hazardous Property.

Haswaste, developed by Dr. lain Haslock.

733272 - Former Lombard Service Station, Bristol

TP/WS/BH Depth (m) Envirolab reference			BH1 0.70 18/08822/1	BH1 1.40 18/08822/3	BH1 2.70 18/08822/6	BH2 0.30 18/08822/7	BH3 0.50 18/08822/13	BH3 1.00 18/08822/14	WS1 0.30 18/08822/17	WS1 0.80 18/08822/18	WS1 2.90 18/08822/22
Ecotoxic HP14 amended v6	≥25%	<0.1%	0.10718	0.0000	0.00000	0.06480	0.0000	0.07432	0.05467	0.0000	0.00000
Ecotoxic HP14 amended v6	≥25%	<0.1% (except Be. V. Te, TI, Petrol, Diesel, Crude Oil, Kerosene, White Spirit, Crosole, TPH, TPHCWG, Phenol, Cresols, Xylenols, Thiocyanate, Toluene, Elthybenzene Xylene + BTEX 1%).	0.11151	0.0000	0.00010	0.07589	0.0000	0.08458	0.14418	0.0000	0.00050
Ecotoxic HP14 amended v6	≥25%	<0.1% (except Be, V. Te, T), Petrol, Diesel, Crude Oil, Kerosene, White Spirt, Crosote, TPH, TTPHCWG, Phenol, Cresols, Xylenols, T-Phenols, CompCN, Thiocyanate, Toluene, Ethylbenzene , Xylene + BTEX 1%).	10.76136	0.00000	0.00100	6.59095	0.00000	7.53433	6.36195	0.00000	0.00500
Persistent Organic Pollutant (PCB, PBB or POP Pesticides)	>0.005%		0.00000000	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000
Persistent Organic Pollutant (Total Dioxins+Furans) Persistent Organic Pollutant	>0.000015%		0.0000000000	0.0000000000	0.0000000000	0.0000000000	0.0000000000	0.0000000000	0.0000000000	0.0000000000	0.0000000000
(Individual Dioxins+Furans)	>0.0000015%		0.0000000000	0.0000000000	0.0000000000	0.0000000000	0.0000000000	0.0000000000	0.0000000000	0.0000000000	0.0000000000

CHYHO

Please enter available data in the rows associated with the test (grey) cells. Calculation cells initially display either "0.0000" or "#DIV/01". If any calculation cells below state "0.00000", testing has NOT been undertaken that contributes to that Hazardous Property.

Haswaste developed by Dr. lain Haslock

733272 - Former Lombard Service Station, Bristol

TP/WS/BH Depth (m) Envirolab reference

% Moisture pH (soil) pH (leachate Arsenic Cadmium Copper CrVI or Chromium Lead Mercury Nickel Selenium Zinc Barium Beryllium Vanadium Cobalt Manganese Molybdenum Antimony Aluminium Bismuth CrIII Iron Strontium Tellurium Thallium Titanium Tungsten Ammoniacal N ws Boron

mg/k, mg/k, mg/k, mg/k, mg/k, mg/k, mg/k, mg/k, mg/k, mg/k, mg/k, mg/k, mg/k, mg/k, mg/k, mg/k, mg/k, mg/k, mg/k,

mg/k

mg/k

PAH (Input Total PAH OR individual PAH results)

Acenaphthene Acenaphthylene mg/k mg/k Anthracene Benzo(a)anthracene mg/kg mg/kg mg/kg mg/kg mg/kg Benzo(a)pyrene Benzo(b)fluoranthene Benzo(ahi)pervlene Benzo(k)fluoranthene Chrysene Dibenzo(ah)anthracene Fluoranthene mg/k mg/k Fluorene Indeno(123cd)pyrene Naphthalene mg/kg mg/k Phenanthrene Pvrene Coronene Total PAHs (16 or 17) mg/k

TPH Petrol Diesel mg/k Lube Oil mg/kg Crude Oil mg/k mg/k White Spirit / Kerosene mg/k Unknown TPH with ID Unknown TPHCWG mg/kg mg/k Total Sulphide Complex Cyanide Free (or Total) Cyanide mg/kg

Elemental/Free Sulphur mg/kg Phenols Input Total Phenols HPLC OR individual Phenol results. Phenol mg/k

Cresols mg/k mg/k Xylenols Resourcinol Phenols Total by HPLC m

BTEX Input Total BTEX OR individual BTEX results. mg/k Benzene Toluene

mg/k Ethylbenzene Xylenes Total BTEX mg/k PCBs (POPs)
PCBs Total (eg EC7/WHO12)

mg/k

mg/kg

PBBs (POPs) Hexabromobiphenyl (Total or PBB153; 2,2',4,4',5,5'- if only available)

Thiocyanate

WS3	WS3	WS3	WS3	WS4	WS4			
0.20	0.60	1.30	3.60	0.90	1.10			
18/08822/27	18/08822/28	18/08822/30	18/08822/35	18/08822/39	18/08822/40			
ı	00.0	1	Ī	ı	05.0	1	1	ı
	20.3 9.49			I	25.3 13.40	<u> </u>	<u> </u>	<u> </u>
	9.49				13.40	 	 	
	17			Ì	13	İ	İ	
	0.5				1.6	1	1	
	141 14				22 8	1	1	
	862				199	1	1	
	42.70				1.27	1	1	
	16 1				4	1	1	
	182				56			
						1	1	
						†	†	
						1	1	
						1	1	
						1	1	
						1	1	
						1	1	
				1		 	 	
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	0.01				0.01			
	0.02 0.02				0.01 0.06	1	1	
	0.02				0.06	1	1	
	0.22				0.12	1	1	
	0.28				0.17	1	1	
	0.11				0.05	1	1	
	0.09 0.25				0.07	1	1	
	0.25				0.19 0.04	1	1	
	0.29				0.42	1	1	
	0.01				0.01	1	1	
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Tetrabutyltin TeBT
Tin excluding Organotin
Tin excl Organotin

Please enter available data in the rows associated with the test (grey) cells. Calculation cells initially display either "0.0000" or "#DIV/0!". If any calculation cells below state "0.00000", testing has NOT been undertaken that contributes to that Hazardous Property.

CITYII		If an	ny calculation cel	ls below state "0.	.00000", testing I	has NOT been ur	ndertaken that co	ontributes to that	Hazardous Prop	erty.
Haswaste, developed by Dr. lain H	Haslock.									
733272 - Former Lombard										
Service Station, Bristol										
Service Station, Briston										
TP/WS/BH		WS3	WS3	WS3	WS3	WS4	WS4			
Depth (m)		0.20	0.60	1.30	3.60	0.90	1.10			
Envirolab reference		18/08822/27	18/08822/28	18/08822/30	18/08822/35	18/08822/39	18/08822/40			
BOD B: : 15 1 1	T. (15)									
POPs Dioxins and Furans Input on OR individual Dioxin and Furan res										
2,3,7,8-TeCDD	mg/kg		I		I		I	I		I
1,2,3,7,8-PeCDD	mg/kg									
1,2,3,4,7,8-HxCDD	mg/kg									
1,2,3,6,7,8-HxCDD	mg/kg									
1,2,3,7,8,9-HxCDD	mg/kg									
1,2,3,4,6,7,8-HpCDD	mg/kg									
OCDD	mg/kg									
2,3,7,8-TeCDF	mg/kg			ĺ		ĺ			ĺ	
1,2,3,7,8-PeCDF	mg/kg			1		1			1	
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1,2,3,4,7,8-HxCDF	mg/kg			ĺ		I			ĺ	
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1,2,3,7,8,9-HxCDF	mg/kg									
1,2,3,4,6,7,8-HpCDF	mg/kg			1		1			1	
1,2,3,4,7,8,9-HpCDF	mg/kg			1		1			1	
OCDF	mg/kg									
Total Dioxins and Furans	mg/kg									
Some Pesticides (POPs unless of	otherwise stated)									
Aldrin	mg/kg									
α Hexachlorocyclohexane (alpha-										
HCH) (leave empty if total HCH	mg/kg									
results used) β Hexachlorocyclohexane (beta-										
HCH) (leave empty if total HCH	mg/kg									
results used)	g.n.g									
α Cis-Chlordane (alpha) OR										
Total Chlordane	mg/kg									
δ Hexachlorocyclohexane (delta-										
HCH) (leave empty if total HCH	mg/kg									
results used)										
Dieldrin Endrin	mg/kg									
χ Hexachlorocyclohexane	mg/kg			1		1			1	
(gamma-HCH) (lindane) OR	mg/kg									
Total HCH	3 3									
Heptachlor	mg/kg									
Hexachlorobenzene	mg/kg	-								
o,p'-DDT (leave empty if total	mg/kg			1		1			1	
DDT results used)			1	!		!			!	
p,p'-DDT OR Total DDT	mg/kg		 	 		 			 	
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			1	 		 			 	
Chlordecone (kepone)	mg/kg		 	 		 			 	
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Toxaphene (camphechlor)	mg/kg mg/kg		†	 		 			 	
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and Tin excl Organotin results used)	mg/kg			ĺ		ĺ			ĺ	
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Triphenyltin; TriPT	mg/kg		<u> </u>	<u> </u>		<u> </u>			<u> </u>	
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TP/WS/BH Depth (m) Envirolab reference

Asbestos in Soil
Asbestos detected in Soil (enter Y or N)

Asbestos % Composition in Soil

See *Carc HP7

Asbestos % Composition in Soil (Matrix Loose Fibres or Microscopic Identifiable Pieces only)

Carcinogenic HP7 % Asbestos in Soil (fibres)"

Carcinogenic HP7 % Asbestos in Soil (fibres)"

Please be advised, if the calculation cell is "0.00000"

DOES NOT MEAN asbestos testing has been undertaken and the result is zero.

Asbestos Identifiable Pieces visible with the naked eye detected in the Soil (enter Y or N)

Please enter available data in the rows associated with the test (grey) cells. Calculation cells initially display either "0.0000" or "#DIV/0!". If any calculation cells below state "0.00000", testing has NOT been undertaken that contributes to that Hazardous Property.

	WS3	WS3	WS3	WS3	WS4	WS4	
	0.20	0.60	1.30	3.60	0.90	1.10	
	18/08822/27	18/08822/28	18/08822/30	18/08822/35	18/08822/39	18/08822/40	
•							

N	N				N								
	If Asbestos in Soil above is "Y", the soil is Hazardous Waste HP5 and HP7												
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000					

If Asbestos in So1 above is "Y", but Asbestos % above is "<0.1%", the soil is Non Hazardous Waste. You can only use Asbestos % results where loose fibres or micro pieces are only present. You cannot use Asbestos % resu

If visual identifiable pieces of asbestos are present, you cannot use Asbestos % results and the whole soil sample is Hazardous Waste HP5 and HP7 Construction material containing Asbestos 17 06 05.

Therefore, f Asbestos in Soil above is "Y", the Asbestos % above is "<0.1%", but the Asbestos Identifiable Pieces visible with the naked eye is "Y", the soil is Hazardous Waste.

Identifiable Pieces are Cement, Fragments, Board, Rope etc. ie anything ACM that is not Loose F bres

Real below our pyshow and the lest turns rod, the complex about the extensive should be clearable as Newton's Wests.				All visual asb	estos pieces need to b	e removed leaving only	y fibres (or micro piece	s) with an Asbestos %	Composition in Soil re-	sult of <0.1% for the so	il to become non-hazar	rdous waste.
Infrast HP4	Hazardous Property	Thresholds	Cut Off Value			If cells below turn ye	ellow and the text turn	ns red, the samples s	should be classified	as Hazardous Waste.		
Infrast HP4	Corrosive HP8	≥5%	<1%		0.00393		0.00000					
Specif Target Organ Toxicity 20% 0.00000												
Products Products		≥20%	<1%	0.00000	0.01531	0.00000	0.00000	0.00000	0.00252	0.00000	0.00000	0.00000
Pigs		≥1%		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Product Prod		≥20%		0.00000	0.00001	0.00000	0.00000	0.00000	0.00003	0.00000	0.00000	0.00000
Aprilation Toxicity HPS		≥1%		0.00000	0.00258	0.00000	0.00000	0.00000	0.00115	0.00000	0.00000	0.00000
Acute Toxicity HP6		≥10%		0.00000	0.06870	0.00000	0.00010	0.00000	0.01487	0.00000	0.00000	0.00000
Acute Toxicity HPG												
Acute Toxicity HP6	Acute Toxicity HP6											
Acute Toxicity HPB												
Acute Toxicity HP6												
Acute Toxicity HP6												
Acute Toxicity HP6												
Acute Toxicity HP6												
Acute Toxicity HP6												
Acute Toxicity H96												
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Carcinogenic HP7												
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with ID 24,00mg/sg 0.00 24,71 0.00 0.00 0.00 132,20 0.00 0.00 0.00 Carcinogenic HP7 logip marker lest (Unknown TPP4 with ID only Cel only applicable if TPH >1,000mg/kg ≥0.01% #DIV/0!		≥1%		0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Colony applicable if TPH >1,000mg/kg		≥1,000mg/kg		0.00	24.71	0.00	0.00	0.00	138.20	0.00	0.00	0.00
ieachate	(Unknown TPH with ID only)	≥0.01%		#DIV/0!	0.56561	#DIV/0!	#DIV/0!	#DIV/0!	0.04845	#DIV/0!	#DIV/0!	#DIV/0!
ieachate 100		H8 ≥11.5		0.00	9.49	0.00	0.00	0.00	13.40	0.00	0.00	0.00
Toxic for Reproduction HP10 23% 0.00000 0.00247 0.00000 0.00010 0.00000 0.01382 0.000000 0.00000		H8 ≤2		0.00	9.49	0.00	0.00	0.00	13.40	0.00	0.00	0.00
Mutagenic HP11 ≥0.1% Mutagenic HP11 Unknown TPH with ID only by ID ID ID ID ID ID ID ID ID ID ID ID ID	Toxic for Reproduction HP10											
Mutagenic HP11 Unknown TPH with ID ≥1,000mg/kg 0.00 24.71 0.00 0.00 0.00 138.20 0.00 0.00 0.00 Mutagenic HP11 b(a)p marker lest (Unknown TPH with ID only) Cel only applicable if TPH >1,000mg/kg ±DIV/0! ±DIV/0! #DIV/0! #DIV/												
with ID 21,00mg/kg 0.00 24.71 0.00 0.00 0.00 13820 0.00 0.00 0.00 Mutagenic HP11 (Unknown TPH with ID only) Cell only applicable if TPH >1,000mg/kg ±0.01% #DIV/0! #D		≥0.1%		0.00000	0.00214	0.00000	0.00010	0.00000	0.00115	0.00000	0.00000	0.00000
Cel only applicable if TPH >1,000mg/kg Mutagenic HP11 21% 0,0000		≥1,000mg/kg		0.00	24.71	0.00	0.00	0.00	138.20	0.00	0.00	0.00
Produces Toxic Gases HP12 Sulphide ≥1,400mg/kg 0.0	(Unknown TPH with ID only)	≥0.01%		#DIV/0!	0.56561	#DIV/0!	#DIV/0!	#DIV/0!	0.04845	#DIV/0!	#DIV/0!	#DIV/0!
Produces Toxic Gases HP12 Sulphide ≥1,400mg/kg 0.0	Mutagenic HP11	≥1%	1	0.00000	0.00258	0.00000	0.00000	0.00000	0.00060	0.00000	0.00000	0.00000
Produces Toxic Gases HP12 Cyanide ≥1,200mg/kg 0.0	Produces Toxic Gases HP12											
Produces Toxic Gases HP12 Thiocyanate 22,600mg/kg 0.0 <td>Produces Toxic Gases HP12</td> <td>≥1,200mg/kg</td> <td></td> <td>0.0</td> <td>0.0</td> <td>0.0</td> <td>0.0</td> <td>0.0</td> <td>0.0</td> <td>0.0</td> <td>0.0</td> <td>0.0</td>	Produces Toxic Gases HP12	≥1,200mg/kg		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Produces Toxic Gases HP12	≥2,600mg/kg		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	HP13 Sensitising	≥10%	1	0.00000	0.00258	0.00000	0.00000	0.00000	0.00115	0.00000	0.00000	0.00000

Please enter available data in the rows associated with the test (grey) cells. Calculation cells initially display either "0.0000" or "#DIV/0!". If any calculation cells below state "0.00000", testing has NOT been undertaken that contributes to that Hazardous Property.

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TP/WS/BH			WS3	WS3	WS3	WS3	WS4	WS4			
Depth (m)			0.20	0.60	1.30	3.60	0.90	1.10			
Envirolab reference			18/08822/27	18/08822/28	18/08822/30	18/08822/35	18/08822/39	18/08822/40			
											-
Ecotoxic HP14 amended v6	≥25%	<0.1%	0.0000	0.10975	0.00000	0.0000	0.0000	0.02546	0.0000	0.0000	0.00000
Ecotoxic HP14 amended v6	≥25%	<0.1% (except Be, V, Te, TI, Petrol, Diesel, Crude Oi, Kerosene, White Spirit, Crosote, TPH, TPHCWG, Phenol, Cresols, Xylenols, T- Phenols, CompCN, Thiocyanate, Toluene, Ethylenee, Ethylenee, BTEX 1%).	0.0000	0.11222	0.0000	0.00010	0.0000	0.03928	0.0000	0.0000	0.00000
Ecotoxic HP14 amended v6	≥25%	<0.11% (except Be, V, Te, TI, Petrol, Diesel, Crude Ol, Kerosene, White Spirit, Crosote, TPH, TPHCWG, Phenol, Cresols, Xylenols, T- Phenols, CompCN, Toluene, Ethylbenzene , Xylene + BTEX 1%).	0.00000	10.99956	0.0000	0.00100	0.0000	2.68427	0.0000	0.0000	0.0000
Persistent Organic Pollutant (PCB, PBB or POP Pesticides)	>0.005%		0.00000000	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000
Persistent Organic Pollutant (Total Dioxins+Furans)	>0.0000015%		0.0000000000	0.0000000000	0.0000000000	0.0000000000	0.0000000000	0.0000000000	0.0000000000	0.0000000000	0.000000000
Persistent Organic Pollutant (Individual Dioxins+Furans)	>0.0000015%		0.000000000	0.000000000	0.0000000000	0.000000000	0.0000000000	0.000000000	0.0000000000	0.0000000000	0.0000000000

United Kingdom Accreditation Service

ACCREDITATION CERTIFICATE



TESTING LABORATORY No. 1247

Envirolab

is accredited in accordance with the recognised International Standard ISO/IEC 17025:2005 General Requirements for the competence of testing and calibration laboratories.

This accreditation demonstrates technical competence for a defined scope as detailed in and at the locations specified in the schedule to this certificate, and the operation of a laboratory quality management system (refer joint ISO-ILAC-IAF Communiqué dated January 2009).

The schedule to this certificate is an essential accreditation document and from time to time may be revised and reissued by the United Kingdom Accreditation Service. The most recent issue of the schedule of accreditation, which bears the same accreditation number as this certificate, is available from the UKAS website www.ukas.com.

This accreditation is subject to continuing conformity with United Kingdom Accreditation Service requirements. The absence of a schedule on the UKAS website indicates that the accreditation is no longer in force.

Accreditation Manager United Kingdom Accreditation Service

Initial Accreditation date 2 December 1992 This certificate issued on 12 November 2012

UKAS is appointed as the sole national accreditation body for the UK by The Accreditation Regulations 2009 (SI No 3155/2009) and operates under a Memorandum of Understanding (MoU) with the Department for Business, Innovation and Skills (BIS).



APPENDIX D -BACKGROUND TO GEOENVIRONMENTAL ASSESSMENT

- (i) RSK Group Generic Assessment Criteria (GAC)
- (ii) UKWIR Guidelines
- (iii) Risk Assessment Methodology



Generic assessment criteria for human health: residential scenario without home-grown produce

Background

RSK's generic assessment criteria (GAC) were initially prepared following the publication by the Environment Agency (EA) of soil guideline value (SGV) and toxicological (TOX) reports, and associated publications in 2009⁽¹⁾. RSK GAC were updated following the publication of GAC by LQM/CIEH in 2009⁽²⁾. RSK GAC are periodically revised when updated information on toxicological, land use or receptor parameters is published.

Updates to the RSK GAC

In 2014, the publication of Category 4 Screening Levels $(C4SL)^{(3,4)}$, as part of the Defra-funded research project SP1010, included modifications to certain exposure assumptions documented within EA Science Report SC050221/SR3 (herein after referred to as SR3)⁽⁵⁾ used in the generation of SGVs.

C4SL were published for six substances (cadmium, arsenic, benzene, benzo(a)pyrene, chromium VI and lead) for a sandy loam soil type with 6% soil organic matter, based on a low level of toxicological concern (LLTC; see Section 2.3 of research project report SP1010⁽³⁾). Where a C4SL has been published, the RSK GAC duplicates the C4SL published values using all input parameters within the SP1010 final project report⁽³⁾ and associated appendices⁽⁶⁾, and adopts them as GAC for these six substances.

For all other substances the C4SL exposure modifications relevant for residential without homegrown produce end use have been applied to the current RSK GAC. These include alterations to daily inhalation rates for residential and commercial scenarios, reducing soil adherence factors in children (age classes 1 to 12 only) and reducing exposure frequency for dermal contact outdoors.

The RSK GAC have also been revised with updated toxicology published by LQM/CIEH in 2015⁽⁷⁾ or by the USEPA⁽¹⁴⁾, where a C4SL has not been published.

RSK GAC derivation for metals and organic compounds

Model selection

Soil assessment criteria (SAC) were calculated using the Contaminated Land Exposure Assessment (CLEA) tool v1.071, supporting EA guidance^(5,8,9) and revised exposure scenarios published for the C4SL⁽³⁾. The SAC are also termed GAC.

Conceptual model

In accordance with SR3⁽⁵⁾, the residential <u>without</u> home-grown produce scenario considers risks to a female child between the ages of 0 and 6 years old as the highest risk scenario. In accordance with Box 3.1 of SR3⁽⁵⁾, the pathways considered for production of the SAC in the residential without home-grown produce scenario are

- direct soil and dust ingestion in areas of soft landscaping
- dermal contact with soil and indoor dust



• inhalation of indoor and outdoor dust and vapours.

Figure 1 is a conceptual model illustrating these linkages.

In line with guidance in the EA SGV report for cadmium⁽¹⁾, the RSK GAC for cadmium has been derived based on estimates representative of lifetime exposure. Although young children are generally more likely to have higher exposures to soil contaminants, the renal toxicity of cadmium, and the derivation of the TDI_{oral} and TDI_{inh}, are based on considerations of the kidney burden accumulated over 50 years or so. It is therefore reasonable to consider exposure not just in childhood but averaged over a longer period.

With respect to volatilisation, the CLEA model assumes a simple linear partitioning of a chemical in the soil between the sorbed, dissolved and vapour phase⁽⁹⁾. The upper boundaries of this partitioning are represented by the maximum aqueous solubility and pure saturated vapour concentration of the chemical. The CLEA model estimates saturated soil concentrations where these limits are reached⁽⁹⁾. The CLEA software uses a traffic light system to identify when individual and/or combined assessment criteria exceed the lower of either the aqueous- or vapour-based soil saturation limits. Model output cells are flagged red where the saturated soil concentration has been exceeded and the contribution of the indoor and outdoor vapour pathway to total exposure is greater than 10%. In this case, further consideration of the following is required⁽⁹⁾:

- Free phase contamination may be present.
- Exposure from the vapour pathways will be over-predicted by the model, as in reality the vapour phase concentration will not increase at concentrations above saturation limits
- Where the vapour pathway contribution is greater than 90%, it is unlikely the relevant health criteria value (HCV) will be exceeded at soil concentrations at least a factor of ten higher than the relevant HCV.

Where the vapour pathway is the predominant pathway (contributes greater than 90% of exposure) or the only exposure route considered and the cell is highlighted red (SAC exceeds saturation limit), the risk based on the assumed conceptual model is likely to be negligible as the vapour risk is assumed to be tolerable at maximum possible soil concentrations. In such circumstances, the vapour pathway exposure should be considered based on the presence of free phase or non-aqueous phase liquid sources and the measured concentrations of volatile organic compounds (VOC) in the vapour phase. Screening could be considered based on setting the SAC as the modelled soil saturation limits. However, as stated within the CLEA handbook⁽⁹⁾, this is likely to not be practical in many cases because of the very low saturation limits and, in any case, is highly conservative.

It should also be noted that for mixtures of compounds, free phase may be present where soil (or groundwater) concentrations are well below saturation limits for individual compounds.

Where the vapour pathway is only one of the exposure pathways considered, an additional approach can then be utilised as detailed within Section 4.12 of the CLEA model handbook⁽⁹⁾, which explains how to calculate an effective assessment criterion manually.

SR3⁽⁵⁾ states that, as a general rule of thumb, it is recognised that estimating vapour phase concentrations from dissolved and sorbed phase contamination by petroleum hydrocarbons are at least a factor of ten higher than those likely to be measured on-site. RSK has therefore applied an empirical subsurface to indoor air correction factor of 10 into the CLEA model chemical database for all petroleum hydrocarbon fractions (including BTEX, trimethylbenzenes and the



polycyclic aromatic hydrocarbons (PAH) naphthalene, acenaphthene and acenaphthylene) to reduce this conservatism.

Input selection

The most up-to-date published chemical and toxicological data was obtained from EA Report SC050021/SR7⁽¹⁰⁾, the EA TOX⁽¹⁾ reports, the C4SL SP1010 project report and associated appendices^(3,6), the 2015 LQM/CIEH report⁽⁷⁾ or the USEPA IRIS database⁽¹⁴⁾. Where a C4SL has been published, the RSK GAC have duplicated the C4SL published values using all input parameters within the SP1010 final project report⁽³⁾ and associated appendices⁽⁶⁾, and has adopted them as GAC for these six substances. Toxicological and specific chemical parameters for 1,2,4-trimethylbenzene and methyl tertiary-butyl ether (MTBE) were obtained from the CL:AIRE Soil Generic Assessment Criteria report⁽¹¹⁾.

For TPH, aromatic hydrocarbons C_5 – C_8 were not modelled, as this range comprises benzene (>EC5-EC7) and toluene (>EC7-EC8), which are modelled separately.

Physical parameters

For the residential without home-grown produce scenario, the CLEA default building is a small, two-storey terrace house with a concrete ground-bearing slab. SR3⁽⁵⁾ notes this residential building type to be the most conservative in terms of potential for vapour intrusion. The building parameters used in the production of the RSK GACs are the default CLEA v1.06 inputs presented in Table 3.3 of SR3⁽³⁾, with a dust loading factor detailed in Section 9.3 of SR3⁽⁵⁾. The parameters for a sandy loam soil type were used in line with Table 4.4 of SR3⁽⁵⁾. This includes a value of 6% for the percentage of soil organic matter (SOM) within the soil. In RSK's experience, this is rather high for many sites. To avoid undertaking site-specific risk assessments for this SOM, RSK has produced an additional set of GAC for SOM of 1% and 2.5% for all substances using the CLEA tool.

Summary of modifications to the default CLEA SR3⁽⁵⁾ input parameters for residential without home-grown produce

In summary, the RSK GAC were produced using the default input parameters for soil properties, the air dispersion model, building properties and the vapour model detailed in $SR3^{(5)}$. Modifications to the default $SR3^{(5)}$ exposure scenarios based on the C4SL exposure scenarios are presented in Table 2 below.

The final selected GAC are presented by pathway in Table 3 and the combined GAC in Table 4.



Figure 1: Conceptual model for CLEA residential scenario without home-grown produce

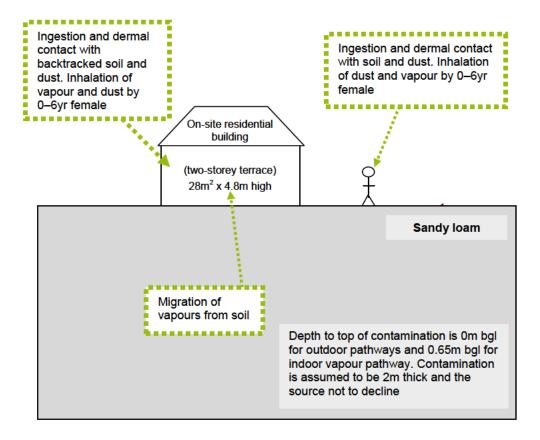


Table 1: Exposure assessment parameters for residential scenario without home-grown produce – inputs for CLEA model

Parameter	Value	Justification				
Land use	Residential without home-grown produce	Chosen land use				
Receptor	Female child	Key generic assumption given in Box 3.1, SR3 ⁽⁵⁾				
Building	Small terraced house	Key generic assumption given in Box 3.1, SR3 ⁽⁵⁾ . Small, two-storey terraced house chosen, as it is the most conservative residential building type in terms of protection from vapor intrusion (Section 3.4.6, SR3) ⁽⁵⁾				
Soil type	Sandy loam	Most common UK soil type (Section 4.3.1, from Table 3.1, SR3) ⁽⁵⁾				
Start age class (AC)	1	Range of age classes corresponding to key generic				
End AC	6	assumption that the critical receptor is a young female child aged 0–6. From Box 3.1, SR3 ⁽⁵⁾				
SOM (%)	6	Representative of sandy loamy soil according to EA guidance note dated January 2009 entitled 'Changes We Have Made to the CLEA Framework Documents' (13)				
	1	To provide SAC for sites where SOM <6% as often observed by				
	2.5	RSK				
pН	7	Model default				



Table 2: Residential without home-grown produce - modified receptor data

Parameter	Unit	Age class									
		1	2	3	4	5	6				
Soil to skin adherence factor – (outdoor)	mg soil/cm ² skin	0.1	0.1	0.1	0.1	0.1	0.1				
Justification	Justification				Table 3.5, SP1010 ⁽³⁾						
Inhalation rate	m³ day⁻¹	5.4	8.0	8.9	10.1	10.1	10.1				
Justification		Mean value USEPA, 2011 ⁽¹²⁾ ; Table 3.2, SP1010 ⁽³⁾									

Notes: For **cadmium**, the exposure assessment for a residential land use is based on estimates representative of lifetime exposure AC1-18. This is because the TDI_{oral} and TDI_{inh} are based on considerations of the kidney burden accumulated over 50 years. It is therefore reasonable to consider exposure not just in childhood but averaged over a longer period. See the Environment Agency Science Report SC05002/ TOX 3⁽¹⁾, Science Report SC050021/Cadmium SGV⁽¹⁾ and the project report SP1010⁽³⁾ for more information.



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GENERIC ASSESSMENT CRITERIA FOR HUMAN HEALTH - RESIDENTIAL WITHOUT HOME-GROWN PRODUCE



Table 3
Human Health Generic Assessment Criteria by Pathway for Residential Scenario Without Home-Grown Produce

	8	SAC Appropri	iate to Pathway So	OM 1% (mg/kg)	Soil Saturation	SAC Appropriate to Pathway SOM 1% (mg/kg) Soil Saturation SAC Appropriate to Pathway SOM 2.5% (mg/kg) Oral Inhalation Combined Limit (mg/kg) Oral Inhalation Combined				SAC Appropr	SAC Appropriate to Pathway SOM 6% (mg/kg)		
Compound	otes	Oral	Inhalation	Combined	Limit (mg/kg)	Oral	Inhalation	Combined	Soil Saturation Limit (mg/kg)	Oral	Inhalation	Combined	Soil Saturation Limit (mg/kg)
Metals													
Arsenic	(a,b)	3.99E+01	5.26E+02	NR	NR	3.99E+01	5.26E+02	NR	NR	3.99E+01	5.26E+02	NR	NR
Cadmium	(a)	1.95E+02	4.88E+02	1.49E+02	NR	1.95E+02	4.88E+02	1.49E+02	NR	1.95E+02	4.88E+02	1.49E+02	NR
Chromium (III) - trivalent	(c)	1.98E+04	9.07E+02	NR	NR	1.98E+04	9.07E+02	NR	NR	1.98E+04	9.07E+02	NR	NR
Chromium (VI) - hexavalent	(a,d)	5.91E+01	2.06E+01	NR	NR	5.91E+01	2.06E+01	NR	NR	5.91E+01	2.06E+01	NR	NR
Copper		1.08E+04	1.41E+04	7.13E+03	NR	1.08E+04	1.41E+04	7.13E+03	NR	1.08E+04	1.41E+04	7.13E+03	NR
Lead	(a)	3.14E+02	NR	NR	NR	3.14E+02	NR	NR	NR	3.14E+02	NR	NR	NR
Elemental Mercury (Hg ⁰)	(d)	NR	2.41E-01	NR	4.31E+00	NR	5.74E-01	NR	1.07E+01	NR	1.25E+00	NR	2.58E+01
Inorganic Mercury (Hg ²⁺)		5.71E+01	3.63E+03	5.62E+01	NR	5.71E+01	3.63E+03	5.62E+01	NR	5.71E+01	3.63E+03	5.62E+01	NR
Methyl Mercury (Hg ⁴⁺)		1.80E+01	1.87E+01	9.16E+00	7.33E+01	1.80E+01	3.62E+01	1.20E+01	1.42E+02	1.80E+01	7.68E+01	1.46E+01	3.04E+02
Nickel	(d)	1.88E+02	1.81E+02	NR	NR	1.88E+02	1.81E+02	NR	NR	1.88E+02	1.81E+02	NR	NR
Selenium	(b)	4.31E+02	NR	NR	NR	4.31E+02	NR	NR	NR	4.31E+02	NR	NR	NR
Zinc	(b)	4.05E+04	3.63E+07	NR	NR	4.05E+04	3.63E+07	NR	NR	4.05E+04	3.63E+07	NR	NR
Cyanide (free)	1) (4.03E+01	1.37E+04	4.02E+01	NR	4.03E+01	1.37E+04	4.02E+01	NR	4.03E+01	1.37E+04	4.02E+01	NR
, ,											•		•
Volatile Organic Compounds													
Benzene	(a)	7.36E+01	9.01E-01	8.90E-01	1.22E+03	7.36E+01	1.68E+00	1.64E+00	2.26E+03	7.36E+01	3.48E+00	3.33E+00	4.71E+03
Toluene	1	2.87E+04	9.08E+02	8.80E+02	8.69E+02	2.87E+04	2.00E+03	1.87E+03	1.92E+03	2.87E+04	4.55E+03	3.93E+03	4.36E+03
Ethylbenzene		1.29E+04	8.34E+01	8,29E+01	5.18E+02	1.29E+04	1.96E+02	1.93E+02	1.22E+03	1.29E+04	4.58E+02	4.42E+02	2.84E+03
Xylene - m		2.32E+04	8.25E+01	8.22E+01	6.25E+02	2.32E+04	1.95E+02	1.93E+02	1.47E+03	2.32E+04	4.56E+02	4.47E+02	3.46E+03
Xylene - o		2.32E+04	8.8/E+01	8.83±+01	4./8E+02	2.32E+04	2.08E+02	2.06E+02	1.12E+03	2.32E+04	4.86E+02	4./6E+02	2.62E+03
Xylene - p		2.32E+04	7.93E+01	7.90E+01	5.76E+02	2.32E+04	1.86E+02	1.85E+02	1.35E+03	2.32E+04	4.36E+02	4.28E+02	3.17E+03
Total xylene		2.32E+04	7.93E+01	7.90E+01	6.25E+02	2.32E+04	1.86E+02	1.85E+02	1.47E+03	2.32E+04	4.36E+02	4.28E+02	3.46E+03
Methyl tertiary-Butyl ether (MTBE)		3.87E+04	1.04E+02	1.04E+02	2.04E+04	3.87E+04	1.69E+02	1.69E+02	3.31E+04	3.87E+04	3.21E+02	3.19E+02	6.27E+04
Trichloroethene		6.45E+01	1.72E-02	1.72E-02	1.54E+03	6.45E+01	3.59E-02	3.59E-02	3.22E+03	6.45E+01	7.98E-02	7.97E-02	7.14E+03
Tetrachloroethene		7.13E+02	1.79E-01	1.79E-01	4.24E+02	7.13E+02	4.02E-01	4.02E-01	9.51E+02	7.13E+02	9.21E-01	9.20E-01	2.18E+03
1,1,1-Trichloroethane		7.74E+04	9.01E+00	9.01E+00	1.43E+03	7.74E+04	1.84E+01	1.84E+01	2.92E+03	7.74E+04	4.04E+01	4.04E+01	6.39E+03
1,1,1,2 Tetrachloroethane		7.34E+02	1.54E+00	1.53E+00	2.60E+03	7.74E+04 7.34E+02	3.56E+00	3.55E+00	6.02E+03	7.34E+02	8.29E+00	8.20E+00	1.40E+04
1,1,2,2-Tetrachloroethane		7.34E+02	3.92E+00	3.90E+00	2.67E+03	7.34E+02	8.04E+00	7.95E+00	5.46E+03	7.34E+02	1.76E+01	1.72E+01	1.20E+04
Carbon Tetrachloride		5.15E+02	2.58E-02	2.58E-02	1.52E+03	5.15E+02	5.65E-02	5.64E-02	3.46E+03	5.15E+02	1.28E-01	1.28E-01	7.54E+03
		1.55E+01	9.20E-03	9.20E-03	3.41E+03	1.55E+01	1.33E-02	1.33E-02	4.91E+03	1.55E+01	2.28E-02	2.27E-02	8.43E+03
1,2-Dichloroethane	+		7.73E-04	7.73E-04	3.41E+03 1.36E+03	1.81E+00	1.00E-03	9.99E-04			1.53E-03	1.53E-03	
Vinyl Chloride		1.81E+00				NR	1.29E+01	9.99L-04 NR	1.76E+03	1.81E+00			2.69E+03
1,2,4-Trimethylbenzene	(.)	NR NB	5.58E+00	NR NB	4.74E+02				1.16E+03	NR	2.69E+01	NR NB	2.76E+03
1,3,5-Trimethylbenzene	(e)	NR	NR	NR	2.30E+02	NR	NR	NR	5.52E+02	NR	NR	NR	1.30E+03
Comi Voletile Overnie Commonde													
Semi-Volatile Organic Compounds		7.045 .00	4.005.04	0.005.00	F 70F .01	7.045.00	1.105.05	7.175.00	1.415.00	7.045.00	0.005.05	7.405.00	0.005.00
Acenaphtheles	+	7.64E+03	4.86E+04	6.60E+03	5.70E+01	7.64E+03	1.18E+05	7.17E+03	1.41E+02	7.64E+03	2.68E+05	7.43E+03	3.36E+02
Acenaphthylene	1	7.65E+03	4.59E+04	6.55E+03	8.61E+01	7.65E+03	1.11E+05	7.15E+03	2.12E+02	7.65E+03	2.53E+05	7.42E+03	5.06E+02
Anthracene	+	3.82E+04	1.53E+05	3.06E+04	1.17E+00	3.82E+04	3.77E+05	3.47E+04	2.91E+00	3.82E+04	8.76E+05	3.66E+04	6.96E+00
Benzo(a)anthracene	7-3	1.98E+01	2.47E+01	1.10E+01	1.71E+00	1.98E+01	4.37E+01	1.36E+01	4.28E+00	1.98E+01	6.26E+01	1.50E+01	1.03E+01
Benzo(a)pyrene	(a)	5.34E+00	3.51E+01	NR	9.11E-01	5.34E+00	3.77E+01	NR	2.28E+00	5.34E+00	3.89E+01	NR 4.00F.00	5.46E+00
Benzo(b)fluoranthene	-	4.97E+00	1.93E+01	3.95E+00	1.22E+00	4.97E+00	2.13E+01	4.03E+00	3.04E+00	4.97E+00	2.22E+01	4.06E+00	7.29E+00
Benzo(g,h,i)perylene	+	4.38E+02	1.87E+03	3.55E+02	1.54E-02	4.38E+02	1.94E+03	3.58E+02	3.85E-02	4.38E+02	1.97E+03	3.59E+02	9.23E-02
Benzo(k)fluoranthene	-	1.31E+02	5.41E+02	1.06E+02	6.87E-01	1.31E+02	5.76E+02	1.07E+02	1.72E+00	1.31E+02	5.91E+02	1.07E+02	4.12E+00
Chrysene		3.95E+01	1.19E+02	2.97E+01	4.40E-01	3.95E+01	1.49E+02	3.12E+01	1.10E+00	3.95E+01	1.66E+02	3.19E+01	2.64E+00
Dibenzo(a,h)anthracene	-	3.95E-01	1.45E+00	3.10E-01	3.93E-03	3.95E-01	1.64E+00	3.18E-01	9.82E-03	3.95E-01	1.74E+00	3.22E-01	2.36E-02
Fluoranthene	_	1.59E+03	3.83E+04	1.53E+03	1.89E+01	1.59E+03	8.87E+04	1.56E+03	4.73E+01	1.59E+03	1.83E+05	1.58E+03	1.13E+02
Fluorene		5.09E+03	6.20E+03	2.80E+03	3.09E+01	5.09E+03	1.53E+04	3.82E+03	7.65E+01	5.09E+03	3.62E+04	4.47E+03	1.83E+02

T25656 RSK GAC

GENERIC ASSESSMENT CRITERIA FOR HUMAN HEALTH - RESIDENTIAL WITHOUT HOME-GROWN PRODUCE



1.92E+03

1.93E+03

1.93E+03

NR

NR

NR

NR

NR

3.21E+02

2.90E+01

2.90E+01

1.34E+02

1.21E+01

1.21E+01

Table 3 Human Health Generic Assessment Criteria by Pathway for Residential Scenario Without Home-Grown Produce

1		SAC Appropri	ate to Pathway So	OM 1% (mg/kg)	Soil Saturation	SAC Appropri	SAC Appropriate to Pathway SOM 2.5% (mg/kg)			SAC Appropriate to Pathway SOM 6% (mg/kg)			Soil Saturation
Compound	tes	Oral	Inhalation	Combined	Limit (mg/kg)	Oral	Inhalation	Combined	Soil Saturation Limit (mg/kg)	Oral	Inhalation	Combined	Limit (mg/kg)
Naphthalene		2.50E+03	2.33E+01	2.31E+01	7.64E+01	2.50E+03	5.58E+01	5.46E+01	1.83E+02	2.50E+03	1.31E+02	1.25E+02	4.32E+02
Phenanthrene		1.58E+03	7.17E+03	1.30E+03	3.60E+01	1.58E+03	1.76E+04	1.45E+03	8.96E+01	1.58E+03	4.07E+04	1.52E+03	2.14E+02
Pyrene		3.82E+03	8.79E+04	3.66E+03	2.20E+00	3.82E+03	2.04E+05	3.75E+03	5.49E+00	3.82E+03	4.23E+05	3.79E+03	1.32E+01
Phenol		6.48E+04	4.58E+02	4.55E+02	2.42E+04	6.48E+04	6.95E+02	6.88E+02	3.81E+04	6.48E+04	1.19E+03	1.17E+03	7.03E+04
Aliphatic hydrocarbons EC ₅ -EC ₆		3.23E+05	4.24E+01	4.24E+01	3.04E+02	3.23E+05	7.79E+01	7.79E+01	5.58E+02	3.23E+05	1.61E+02	1.61E+02	1.15E+03
Total Petroleum Hydrocarbons													
Aliphatic hydrocarbons >EC ₆ -EC ₈		3.23E+05	1.04E+02	1.04E+02	1.44E+02	3.23E+05	2.31E+02	2.31E+02	3.22E+02	3.23E+05	5.29E+02	5.29E+02	7.36E+02
Aliphatic hydrocarbons >EC ₈ -EC ₁₀		6.45E+03	2.68E+01	2.68E+01	7.77E+01	6.45E+03	6.55E+01	6.53E+01	1.90E+02	6.45E+03	1.56E+02	1.55E+02	4.51E+02
Aliphatic hydrocarbons >EC ₁₀ -EC ₁₂		6.45E+03	1.33E+02	1.32E+02	4.75E+01	6.45E+03	3.31E+02	3.27E+02	1.18E+02	6.45E+03	7.93E+02	7.67E+02	2.83E+02
Aliphatic hydrocarbons >EC ₁₂ -EC ₁₆		6.45E+03	1.11E+03	1.06E+03	2.37E+01	6.45E+03	2.78E+03	2.42E+03	5.91E+01	6.45E+03	6.67E+03	4.37E+03	1.42E+02
Aliphatic hydrocarbons >EC ₁₆ -EC ₃₅	(b)	6.50E+04	NR	NR	8.48E+00	9.25E+04	NR	NR	2.12E+01	1.11E+05	NR	NR	5.09E+01
Aliphatic hydrocarbons >EC ₃₅ -EC ₄₄	(b)	6.50E+04	NR	NR	8.48E+00	9.25E+04	NR	NR	2.12E+01	1.11E+05	NR	NR	5.09E+01
Aromatic hydrocarbons >EC ₈ -EC ₁₀		2.58E+03	4.74E+01	4.72E+01	6.13E+02	2.58E+03	1.16E+02	1.15E+02	1.50E+03	2.58E+03	2.77E+02	2.69E+02	3.58E+03
Aromatic hydrocarbons >EC ₁₀ -EC ₁₂		2.58E+03	2.58E+02	2.52E+02	3.64E+02	2.58E+03	6.39E+02	5.94E+02	8.99E+02	2.58E+03	1.52E+03	1.24E+03	2.15E+03
Aromatic hydrocarbons >EC ₁₂ -EC ₁₆		2.58E+03	2.85E+03	1.80E+03	1.69E+02	2.58E+03	7.07E+03	2.30E+03	4.19E+02	2.58E+03	1.68E+04	2.48E+03	1.00E+03

Notes:

EC - equivalent carbon. GrAC - groundwater assessment criteria. SAC - soil assessment criteria.

(b)

The CLEA model output is colour coded depending upon whether the soil saturation limit has been exceeded.

1.86E+03

1.93E+03

1.93E+03

NR

NR

NR

NR

NR

NR

5.37E+01

4.83E+00

4.83E+00



Aromatic hydrocarbons >EC16-EC21

Aromatic hydrocarbons >EC21-EC35

Aromatic hydrocarbons >EC35-EC44

Calculated SAC exceeds soil saturation limit and may significantly affect the interpretation of any exceedances as the contribution of the indoor and outdoor vapour pathway to total exposure is >10%.

NR

NR

NR

NR

NR

NR

Calculated SAC exceeds soil saturation limit but the exceedance will not affect the SAC significantly as the contribution of the indoor and outdoor vapour pathway to total exposure is <10%. Calculated SAC does not exceed the soil saturation limit.

The SAC for organic compounds are dependant upon soil organic matter (SOM) (%) content. To obtain SOM from total organic carbon (TOC) (%) divide by 0.58. 1% SOM is 0.58% TOC. DL Rowell Soil Science: Methods and Applications, Longmans, 1994.

SAC for TPH fractions, PAHs napthalene, acenaphthene and acenaphthylene, BTEX and trimethylbenzene compounds were produced using an attenuation factor for the indoor air inhalation pathway of 10 to reduce conservatism associated with the vapour inhalation pathway (Section 10.1.1, SR3)

1.90E+03

1.93E+03

1.93E+03

- (a) SAC for arsenic, benzene, benzo(a)pyrene, cadmium, chromium VI and lead are derived using the C4SL toxicology data.
- (b) SAC for selenium should not include the inhalation pathway as no expert group HCV has been derived; aliphatic and aromatic hydrocarbons >EC16 should not include inhalation pathway due to their non-volatile nature and inhalation exposure being minimal (oral, dermal and inhalation exposure is compared to the oral HCV); arsenic should only be based on oral contribution (rather than combined) owing to the relative small contribution from inhalation in accordance with the SGV report. The Oral SAC should be adopted for zinc and benzo(a)pyrene.
- (c) SAC for CrIII should be based on the lower of the oral and inhalation SAC (see LQM/CIEH 2015 Section 6.8)
- (d) SAC for elemental mercury, chromium VI and nickel should be based on the inhalation pathway only.
- (e) SAC for 1,3,5-trimethylbenzene is not recorded owing to the lack of toxicological data, SAC for 1,2,4 trimethylbenzene may be used.

GENERIC ASSESSMENT CRITERIA FOR HUMAN HEALTH - RESIDENTIAL WITHOUT HOME-GROWN PRODUCE



Table 4 Human health generic assessment criteria for residential without home-grown produce

Compound	SAC for Soil SOM 1% (mg/kg)	SAC for Soil SOM 2.5% (mg/kg)	SAC for Soil SOM 6% (mg/kg)
Metals			
Arsenic	40	40	40
Cadmium	149	149	149
Chromium (III) - trivalent	910	910	910
Chromium (VI) - hexavalent	21	21	21
Copper	7,100	7,100	7,100
Lead	310	310	310
Elemental Mercury (Hg ⁰)	0.2	0.6	1.2
Inorganic Mercury (Hg ²⁺)	56	56	56
Methyl Mercury (Hg ⁴⁺)	9	12	15
Nickel	180	180	180
Selenium	430	430	430
Zinc Cyanide (free)	40,000 40	40,000 40	40,000 40
Cyanide (iree)	40	40	40
Volatile Organic Compounds	• • • • • • • • • • • • • • • • • • • •		
Benzene	0.9	1.6	3.3
Toluene Ethylbenzene	900 (869) 80	1,900 190	3,900 440
Xylene - m	80	190	450
Xylene - o	90	210	480
Xylene - p	80	180	430
Total xylene	80	180	430
Methyl tertiary-Butyl ether (MTBE)	100	170	320
Trichloroethene	0.02	0.04	0.08
Tetrachloroethene	0.2	0.4	0.9
1,1,1-Trichloroethane	9.0	18.4	40.4
1,1,1,2 Tetrachloroethane	1.5	3.5	8.2
1,1,2,2-Tetrachloroethane	3.9	8.0	17.2
Carbon Tetrachloride	0.026	0.056	0.128
1,2-Dichloroethane	0.009	0.013	0.023
Vinyl Chloride	0.0008	0.0010	0.0015
1,2,4-Trimethylbenzene	5.6 NR	12.9 NR	26.9
1,3,5-Trimethylbenzene	INFL	INH	NR
Semi-Volatile Organic Compounds			
Acenaphthene	6,600 (57)	7,200	7,400
Acenaphthylene	6,600 (86)	7,200	7,400
Anthracene Benzo(a)anthracene	31,000 (1.17) 11.0	35,000 13.6	37,000 15.0
Benzo(a)pyrene	5.3	5.3	5.3
Benzo(b)fluoranthene	4.0	4.0	4.1
Benzo(g,h,i)perylene	355	358	359
Benzo(k)fluoranthene	106	107	107
Chrysene	30	31	32
Dibenzo(a,h)anthracene	0.31	0.32	0.32
Fluoranthene	1,500	1,600	1,600
Fluorene	2,800 (31)	3,800 (77)	4,500 (183)
Indeno(1,2,3-cd)pyrene	45	46	46
Naphthalene	23	55	125
Phenanthrene	1,300 (36)	1,450	1,520
Pyrene	3,700	3,800	3,800
Phenol	440*	688	1,170
Total Petroleum Hydrocarbons			
Aliphatic hydrocarbons EC ₅ -EC ₆	42	78	161
Aliphatic hydrocarbons >EC ₆ -EC ₈	100	230	530
Aliphatic hydrocarbons >EC ₈ -EC ₁₀	27	65	155
Aliphatic hydrocarbons >EC ₁₀ -EC ₁₂			
,	130 (48)	330 (118)	770 (283)
Aliphatic hydrocarbons >EC ₁₂ -EC ₁₆	1,100 (24)	2,400 (59)	4,400 (142)
Aliphatic hydrocarbons >EC ₁₆ -EC ₃₅	65,000 (8)	92,000 (21)	111,000
Aliphatic hydrocarbons >EC ₃₅ -EC ₄₄	65,000 (8)	92,000 (21)	111,000
Aromatic hydrocarbons >EC ₈ -EC ₁₀	47	115	269
Aromatic hydrocarbons >EC ₁₀ -EC ₁₂	300	600	1,200
Aromatic hydrocarbons >EC ₁₂ -EC ₁₆	1,800 (169)	2,300 (419)	2,500
	•		·
Aromatic hydrocarbons >EC ₁₆ -EC ₂₁	1,900	1,900	1,900
Aromatic hydrocarbons >EC ₂₁ -EC ₃₅	1,900	1,900	1,900
Aromatic hydrocarbons >EC ₃₅ -EC ₄₄	1,900	1,900	1,900
Minerals			

Notes

'-' Generic assessment criteria not calculated owing to low volatility of substance and therefore no pathway, or an absence of toxicological data.

NR - SAC for 1,3,5-trimethylbenzene is not recorded owing to the lack of toxicological data, SAC for 1,2,4 trimethylbenzene may be used

EC - equivalent carbon. SAC - soil assessment criteria.

¹ LOD for weight of asbestos per unit weight of soil calculated on a dry weight basis using PLM, handpicking and gravimetry.

The SAC for organic compounds are dependent on Soil Organic Matter (SOM) (%) content. To obtain SOM from total organic carbon (TOC) (%) divide by 0.58. 1% SOM is 0.58% TOC. DL Rowell Soil Science: Methods and Applications, Longmans, 1994.

SAC for TPH fractions, PAHs napthalene, acenaphthene and acenaphthylene, BTEX and trimethylbenzene compounds were produced using an attenuation factor for the indoor air inhalation pathway of 10 to reduce conservatism associated with the vapour inhalation pathway, section 10.1.1, SR3.

(VALUE IN BRACKETS)

RSK has adopted an approach for petroleum hydrocarbons in accordance with LQM/CIEH whereby the concentration modelled for each petroleum hydrocarbon fraction has been tabulated as the

No asbestos detected with ID or <0.001% dry weight¹



GENERIC ASSESSMENT CRITERIA FOR CONTROLLED WATERS

Protection of the water environment

The water environment in the United Kingdom is protected under a number of regulatory regimes. The relevant environmental regulator is consulted where there may be a risk that pollution of 'controlled waters' may occur or may have occurred in the past.

The term 'controlled waters' refers to coastal waters, inland freshwaters and groundwater. The EU Water Framework Directive (WFD) (2000/60/EC) is implemented via domestic regulations and guidance, covering aspects of groundwater and surface water protection as well as drinking water supply policy. Domestic legislation and guidance will vary across the United Kingdom. Therefore, the relevant legislation for England, Wales, Northern Ireland and Scotland should be reviewed, alongside guidance provided by the Environment Agency (EA), Natural Resource Wales (NRW), the Scottish Environmental Protection Agency (SEPA) or the Northern Ireland Environment Agency (NIEA), as appropriate.

The main objectives of the protection and remediation of groundwater under threat from land contamination are set out within "The Environment Agency's approach to groundwater protection", version 1.0 (March 2017)⁽¹⁾ and the associated guidance "Land contamination groundwater compliance points: quantitative risk assessments (March 2017)^(1a) that have replaced the previous guidance document "Groundwater Principles and Practice (GP3)". When assessing risks to groundwater, the following need to be considered:

- Where pollutants have not yet entered groundwater, all necessary and reasonable measures must be taken to:
 - prevent the input of hazardous substances into groundwater (see description of hazardous substances below)
 - **limit** the entry of other (non-hazardous) pollutants into groundwater to avoid pollution, deterioration in the status of groundwater bodies and to prevent sustained, upward trends in pollutant concentrations in groundwater.
- Where pollutants have already entered groundwater, the priority is to take all necessary and reasonable measures to:
 - minimise further entry of "contaminants" where there is a defined source
 - **limit the pollution** of groundwater or any effect on the status of the groundwater body from the future expansion of the 'plume', if necessary, by actively reducing its extent.

Within the context of groundwater risk assessments on sites affected by land contamination, "reasonable" means feasible without involving disproportionate costs. What costs are "disproportionate" depends on site-specific circumstances, which may include:

- Considerations of technical feasibility such as identified by the remedial options appraisal, this
 may be due to the distribution or nature of the contamination and the available remedial
 methods to treat the identified contamination;
- Sustainability considerations.



DEFINITIONS AND SUBSTANCE CLASSIFICATIONS

Risks to surface waters:

When assessing risks to surface waters, the following list of definitions should be understood:

Priority substances (PS) are harmful substances originally identified under the Water Framework Directive (WFD) 2000/60/EC as substances 'presenting a significant risk to or via the aquatic environment' at a European level. Member States are required to incorporate the identified **PS** into their country-wide monitoring programmes. There are currently 33 **PS** defined within the Priority Substances Directive (2013/39/EU; Annex 1), with a further 12 additional substances due to come into force from 22 December 2018. Directive 2013/39/EU has been transposed into domestic legislation for England and Wales by The Water Framework Directive (Standards and Classification) Directions (England and Wales) 2015.

Under the umbrella of **PS**, there is a sub-set of substances identified as being "hazardous", and these are referred to as **Priority hazardous substances (PHS)**. The list of **PHS** is defined at EU level within the Priority Substances Directive (2013/39/EU). The WFD defines hazardous substances as 'substances (or groups of substances) that are toxic, persistent and liable to bioaccumulate, and other substances or groups of substances that give rise to an equivalent level of concern.' There are currently 15 **PHS**, with a further 6 additional substances due to come into force from 22 December 2018.

There is also another group of substances defined at EU level and which are referred to as **other pollutants (OP)** in Directive 2013/39/EU. These are additional substances which although not **priority substances**, have EQS which are identical to those laid down in the legislation which applied prior to 13 January 2009 (Directive 2008/105/EU). The **OP** are listed along with the **priority substance (PS)** within the Priority Substances Directive (2013/39/EU), and their associated EQS are also listed therein. There are 6 **OP** defined within the Priority Substances Directive (2013/39/EU).

In addition to the EU level substances, there are also a group of pollutants defined at a Member State level, referred to as **Specific pollutants (SP)**. These substances are pollutants which are released in significant quantities into water bodies in each of the individual European Member States. Under the WFD, Member States are required to set their own EQS for these substances. An indicative list of **SP** is given in Annex VIII of the WFD. Many of the substances categorised as **SP** in the UK were formerly List 2 substances under the old Groundwater Directive (80/68/EEC). The **SP** are defined within Part 2 (Table 1) of The Water Framework Directive (Standards and Classification) Directions (England and Wales) 2015.

Risks to groundwater:

When assessing risks to groundwater, the following definitions should be understood:

Under the requirements of the Groundwater Daughter Directive (2006/118/EU), the UK has published a list of substances it considers to be **hazardous substances** with respect to groundwater. In their advisory capacity to the government, this list has been derived by the UK Joint Agencies Groundwater Directive Advisory Group (JAGDAG), of which the Environment Agency is a member. The JAGDAG list of **hazardous substances** was published in January 2017 and the Environment Agency will use the updated list of hazardous substances from this date for all new activities that may lead to the discharge of hazardous substances to groundwater. The list is extensive and can be found in full at:

https://www.wfduk.org/stakeholders/jagdag



Selecting the appropriate assessment criteria

When assessing the risks to controlled waters, various assessment criteria apply, depending on the nature of the assessment and the conceptual site model.

Where a surface water body is involved, then Environmental Quality Standards (EQS) are the relevant assessment criteria as they are designed to be protective of surface water ecology.

Where a public water supply or a Principal aquifer is involved, then the standards defined in The Water Supply (Water Quality) Regulations⁽²⁾ are the primary source of assessment criteria. The Private Water Supplies Regulations⁽³⁾ may also be applicable in some cases. For instances where there are no UK assessment criteria, then the World Health Organisation (WHO) drinking water guidelines⁽⁴⁾ may be used.

This appendix presents the generic assessment criteria (GAC) that RSK considers suitable for assessing risks to controlled waters for our most commonly encountered determinants. A full list of EQS for England and Wales are included in The Water Framework Directive (Standards and Classification) Directions (England and Wales) 2015.

The RSK GAC for controlled waters are presented in **Table 1** and **Table 2**. In line with the Environment Agency's Remedial Targets Methodology, the GAC for controlled waters are termed 'target concentrations'.

The appropriate target concentrations should be selected with consideration to:

- the site conceptual model (i.e. the receptor at potential risk);
- whether the substance is already present in groundwater at the site;
- whether or not the substance is classified as a priority hazardous substance under the Priority Substances Directive (2013/39/EC) (see above), or as a hazardous substance according to the current list of JAGDAG determinations⁽⁵⁾; and
- background concentrations in the aquifer (if applicable).

It is important to remember that the WFD and Environment Agency guidance^(1 & 1a) support a sustainable, risk-based approach be applied to groundwater contamination. Exceedance of any target concentration does not necessarily imply that an unacceptable risk exists or that remediation is inevitably required.



Target concentrations shaded in green are <u>statutory values</u>

Target concentrations shaded in orange are <u>non-statutory values</u>

Note: Units μg/l throughout (unless otherwise stated)

Table 1: Target concentrations for controlled waters (excluding TPH CWG fractions)

Substanc	e classification			Target concentrations (μg/l)			
			Minimum	UK drinking water	EQS or best	equivalent	
Groundwater receptors ⁽⁵⁾	roundwater Surface water Determinant	Freshwater	Transitional (estuaries) and coastal waters				
		Metal	s & other inor	ganics			
Hazardous substance	Specific pollutant	Arsenic	-	10 ⁽²⁾	50 ^(6a)	25 ^(6a)	
Non-hazardous pollutant	Priority substance	Cadmium	0.1 ⁽⁷⁾	5 ⁽²⁾	≤0.08, 0.08, 0.09, 0.15, 0.25 ^(6b)	0.2 ^(6a)	
(Not determined)	-	Chromium (total)	-	50 ⁽²⁾	Sum values for chr	omium III and VI	
(None	Specific pollutant	Chromium (III)	-	Use value for total chromium	4.7 ^(6a)	-	
Hazardous substance	Specific pollutant	Chromium (VI)			3.4 ^(6a)	0.6 ^(6a)	



Substanc	e classification			Target concentrations (μg/l)			
			Minimum	UK drinking water	EQS or best equivalent		
Groundwater receptors ⁽⁵⁾	Surface water receptors ⁽⁶⁾	Determinant	reporting value	standard (or best equivalent)	Freshwater	Transitional (estuaries) and coastal waters	
						3.76 dissolved, where DOC ≤1mg/I ^(6a)	
(Not determined)	Specific pollutant	Copper	-	2,000 ⁽²⁾	1 bioavailable ^(6a)	3.76µg/l + (2.677µg/l x ((DOC/2) – 0.5µg/l)) dissolved, where DOC >1mg/l ^(6a)	
Hazardous substance	Priority substance	Lead	-	10 ⁽²⁾	1.2 bioavailable ^(6a)	1.3 ^(6a)	
Hazardous substance	Priority hazardous substance	Mercury	0.01 ⁽⁷⁾	1 ⁽²⁾	0.07 ^(6c)	0.07 ^(6c)	
Non-hazardous pollutant	Priority substance	Nickel	-	20 ⁽²⁾	4.0 bioavailable ^(6a)	8.6 ^(6a)	
Non-hazardous pollutant	-	Selenium	-	10 ⁽²⁾	-	-	
Non-hazardous pollutant	Specific pollutant	Zinc	-	3,000 ⁽⁸⁾	10.9 bioavailable ^(6a)	6.8 dissolved (6a)	
None	Specific pollutant	Iron	-	200 ⁽²⁾	1000 ^{(6a)*1}	1000 ^(6a))*1	
None	Specific pollutant	Manganese	-	50 ⁽²⁾ (0.05mg/l)	123 bioavailable ^(6a) (0.123mg/l)	-	
(Not determined)	-	Aluminium	-	200 ⁽²⁾	-	-	



Substanc	e classification		Target concentrations (μg/l)			
			Minimum	UK drinking water	EQS or best	equivalent
Groundwater receptors ⁽⁵⁾	Surface water receptors ⁽⁶⁾	Determinant	reporting value	standard (or best equivalent)	Freshwater	Transitional (estuaries) and coastal waters
Hazardous substance	Priority hazardous substance	Tributyltin compounds (Tributyltin-cation)	0.001 ⁽⁷⁾	-	0.0002 ^(6a)	0.0002 ^(6a)
(Not determined)	-	Sodium	-	200,000 ⁽²⁾ (200 mg/l)	-	-
Non-hazardous pollutant	Specific pollutant	Cyanide (Hydrogen cyanide)	-	50 ⁽²⁾ (0.05 mg/l)	1 ^(6a) (0.001 mg/l)	1 ^(6a) (0.001 mg/l)
Non-hazardous pollutant	-	Total ammonia ^{\$} (ammonium (as NH ₄ ⁺) plus ammonia (NH ₃)	-	500 ⁽²⁾ (0.5 mg/l)	300 ^(6f) (0.3 mg/l)	-
Non-hazardous pollutant	Specific pollutant	Ammonia un-ionised (NH ₃)	-	-	-	21 ^(6a) (0.021 mg/l)
Non-hazardous pollutant	Specific pollutant	Chlorine	-	-	2 ^(6a) (0.002 mg/l)	10 ^(6d) (0.01 mg/l)
(Not determined)	-	Chloride	-	250,000 ⁽²⁾ (250 mg/l)	-	-
(Not determined)	-	Sulphate	-	250,000 ⁽²⁾ (250 mg/l)	-	-
(Not determined)	-	Nitrate (as NO ₃)	-	50,000 ⁽²⁾ (50 mg/l)	-	-
(Not determined)	-	Nitrite (as NO ₂)	-	500 ⁽²⁾ (0.5 mg/l)	10 ⁽⁹⁾ (0.01 mg/l)	-



Substanc	e classification			Target concentrations (μg/l)			
			Minimum	UK drinking water	EQS or best	EQS or best equivalent	
Groundwater receptors ⁽⁵⁾	Surface water Determinant reporting value	reporting	standard (or best equivalent)	Freshwater	Transitional (estuaries) and coastal waters		
		Volatile or	ganic compou	inds (VOC)			
Non-hazardous pollutant	Other pollutant	Tetrachloroethene (tetrachloroethylene; PCE)	0.1 ⁽⁷⁾	10 ⁽²⁾ sum of TCE and	10 ^(6a)	10 ^(6a)	
Hazardous substance	Other pollutant	Trichloroethene (trichloroethylene; TCE)	0.1 ⁽⁷⁾	PCE	10 ^(6a)	10 ^(6a)	
None	Specific pollutant	Tetrachloroethane	-	-	140 ^(6a)	-	
Hazardous substance	Other pollutant	Carbon tetrachloride (tetrachloromethane)	0.1 ⁽⁷⁾	3.0 ⁽²⁾	12 ^(6a)	12 ^(6a)	
Non-hazardous pollutant	Priority substance	1,2-Dichloroethane	1.0 ⁽⁷⁾	3.0 ⁽²⁾	10 ^(6a)	10 ^(6a)	
Non-hazardous pollutant	-	1.2-Dichloroethene (DCE)	-	50.0 ⁽⁴⁾	-	-	
Hazardous substance	-	Vinyl chloride (chloroethene)	-	0.5 ⁽²⁾	-	-	
Non-hazardous pollutant	Priority substance	Dichloromethane	-	20 ⁽⁴⁾	20 ^(6a)	20 ^(6a)	
Non-hazardous pollutant	Priority substance	Trichlorobenzenes	0.01 ⁽⁷⁾	-	0.4 ^(6a)	0.4 ^{((6a)}	
(Not determined)	-	Trihalomethanes	-	100 ^(2a)	-	-	



Substanc	e classification		Target concentrations (μg/l)				
			Minimum	UK drinking water	EQS or best	EQS or best equivalent	
Groundwater receptors ⁽⁵⁾		reporting value	standard (or best equivalent)	Freshwater	Transitional (estuaries) and coastal waters		
Hazardous substance	Priority substance	Trichloromethane (Chloroform)	0.1 ⁽⁷⁾	(see "Trihalomethanes" above)	2.5 ^(6a)	2.5 ^(6a)	
Non-hazardous pollutant	Priority hazardous substance	Di(2-ethylhexyl) phthalate (bis(2-ethylhexyl) phthalate, DEHP)	-	8 ⁽⁴⁾	1.3 ^(6a)	1.3 ^(6a)	
None	Specific pollutant	Benzyl butyl phthalate	-	-	7.5 ^(6a)	0.75 ^(6e)	
Hazardous substance	Priority hazardous substance	Hexachlorobutadiene	0.005 ⁽⁷⁾	0.6 ⁽⁴⁾	0.6 ^(6c)	0.6 ^(6c)	
		Semi-volatile	organic comp	ounds (SVOC)			
(Not determined)	-	Acenaphthylene (C12-C16)	-	-	5.8 ⁽¹	0)	
Hazardous substance	Priority hazardous substance	Anthracene (C16-C21)	-	-	0.1 ^(6a)	0.1 ^(6a)	
Non-hazardous pollutant	Priority substance	Naphthalene (C10-C12)	-	-	2 ^(6a)	2 ^(6a)	



Substanc	e classification		Target concentrations (μg/l)			
			Minimum	UK drinking water	EQS or best	equivalent
Groundwater receptors ⁽⁵⁾	Surface water receptors ⁽⁶⁾	Determinant	reporting value	standard (or best equivalent)	Freshwater	Transitional (estuaries) and coastal waters
Hazardous substance	Priority substance	Fluoranthene (C21-C35)	-	-	0.0063 ^(6a)	0.0063 ^(6a)
		Benzo(a)pyrene (C21-C35)	-	0.01 ⁽²⁾	0.00017 ^(6a)	0.00017 ^(6a)
	Priority hazardous substance(s)	Benzo(b)fluoranthene (C21-C35)	-		No EQS for these substances. B(a)P should be used as the indicator compound instead.	
Hazardous substance(s)		Benzo(k)fluoranthene (C21-C35)	-	0.1 ⁽²⁾ sum of the		
substance(s)		Benzo(g,h,i)perylene (C21-C35)	-	concentration of the four specified compounds		
		Indeno(1,2,3-cd) pyrene (C21-C35)	-	compounds		
Non-hazardous pollutant	Specific pollutant	Phenol		-	7.7 ^(6a)	7.7 ^(6a)
Hazardous substance	Specific pollutant	2,4-Dichlorophenol	0.1 ⁽⁷⁾	-	4.2 ^(6a)	0.42 ^(6a)
Hazardous substance	Priority substance	Pentachloro-phenol (PCP)	0.1 ⁽⁷⁾	9 ⁽⁴⁾	0.4 ^(6a)	0.4 ^(6a)



Substanc	e classification		Target concentrations (μg/l)				
			Minimum	IIV drinking water	EQS or best	EQS or best equivalent	
Groundwater receptors ⁽⁵⁾	Surface water receptors ⁽⁶⁾	Determinant	Minimum reporting value	UK drinking water standard (or best equivalent)	Freshwater	Transitional (estuaries) and coastal waters	
		Petro	leum hydroca	rbons			
Hazardous substance	-	Total petroleum hydrocarbons	-	See Table 2 for individual (non-statutory) TPH CWG fractions with respect to drinking water receptors	See individual risk driving and PAH) for s		
Hazardous substance	Priority substance	Benzene (C5-C7)	1 ⁽⁷⁾	1 ⁽²⁾	10 ^(6a)	8 ^(6a)	
Hazardous substance	Specific pollutant	Toluene (C7-C8)	4 ⁽⁷⁾	700 ⁽⁴⁾	74 ^(6a)	74 ^(6a)	
Hazardous substance	-	Ethylbenzene (C8-C9)	-	300 ⁽⁴⁾	-	-	
(Not determined)	-	Xylenes (C8-C10)	3 ⁽⁷⁾	500 ⁽⁴⁾	30 ⁽¹¹⁾	-	
Non-hazardous pollutant	-	Methyl tertiary butyl ether (MTBE)	-	15 ⁽¹²⁾	-		
		Pesticides, fungic	ides, insectici	des and herbicides		<u> </u>	
Hazardous	Other pollutant	Aldrin	0.003 ⁽⁷⁾	0.03 ⁽²⁾	0.01 ^(6a) (sum of all	0.005 ^(6a) (sum	
substance(s)	(Cyclodiene	Dieldrin	0.003 ⁽⁷⁾	0.03 ⁽²⁾	four)	of all four)	



Substan	ce classification		Target concentrations (μg/l)				
		Determinant	Minimum	UK drinking water	EQS or best	EQS or best equivalent	
Groundwater receptors ⁽⁵⁾	Surface water receptors ⁽⁶⁾	Determinant	reporting value	standard (or best equivalent)	Freshwater	Transitional (estuaries) and coastal waters	
	pesticides)	Endrin	0.003 ⁽⁷⁾	0.1 ^(2b)			
		Isodrin*2	0.003 ⁽⁷⁾	0.1 ^(2b)			
Hazardous substance	Other pollutant	DDT (total)	0.002 ⁽⁷⁾	1 ⁽⁴⁾	0.025 ^(6a)	0.025 ^(6a)	
(Not determined) – assume to be Hazardous Substance	-	Total pesticides	-	0.5 ⁽²⁾	-	-	
(Not determined) - assume to be Hazardous Substance	-	Other individual pesticides	-	0.1 ⁽²⁾			
Hazardous substance	Specific pollutant	Carbendazim	-	-	0.15 ^(6a)	-	
Hazardous substance	Specific pollutant	Chlorothalonil	-	-	0.035 ^(6a)	-	
Hazardous substance	Specific pollutant (until 22/12/18, after which it becomes a Priority substance)	Cypermethrin	-	-	0.0001 ^(6a) From 22/12/18: 8.0E-5 ^(6a)	0.0001 ^(6a) From 22/12/18: 8.0E-6 ^(6a)	
Hazardous substance	Specific pollutant	Dimethoate	0.01 ⁽⁷⁾	-	0.48 ^(6a)	0.48 ^(6a)	



Substan	ce classification		Target concentrations (μg/l)			
		5	Minimum	UK drinking water	EQS or best equivalent	
Groundwater receptors ⁽⁵⁾	Surface water receptors ⁽⁶⁾	Determinant	reporting value	standard (or best equivalent)	Freshwater	Transitional (estuaries) and coastal waters
(Not determined)	Specific pollutant	Glyphosate	-	-	196 ^(6a)	196 ^(6a)
Hazardous substance	Specific pollutant	Linuron		-	0.5 ^(6a)	0.5 ^(6a)
Non- hazardous pollutant	Specific pollutant	Mecoprop	0.04 ⁽⁷⁾	-	18 ^(6a)	18 ^(6a)
Non- hazardous pollutant	Specific pollutant	Methiocarb	-	-	0.01 ^(6a)	-
Non- hazardous pollutant	Specific pollutant	Pendimethalin	-	20 ⁽⁴⁾	0.3 ^(6a)	-
Hazardous substance	Specific pollutant	Permethrin	0.001 ⁽⁷⁾	-	0.001 ^(6a)	0.0002 ^(6a)
Hazardous substance	Priority substance	Alachlor	-	20 ⁽⁴⁾	0.3 ^(6a)	0.3 ^(6a)
Hazardous substance	Priority substance	Atrazine	0.03 ⁽⁷⁾	100 ⁽⁴⁾	0.6 ^(6a)	0.6 ^(6a)
Hazardous substance	Priority substance	Diuron	-	-	0.2 ^(6a)	0.2 ^(6a)
Hazardous substance	Priority hazardous substance	Endosulphan	0.005 ⁽⁷⁾	-	0.005 ^(6a)	0.0005 ^(6a)



Substand	ce classification			Target conce	entrations (µg/l)	
			Minimum	UK drinking water	EQS or best	equivalent
Groundwater receptors ⁽⁵⁾	Surface water receptors ⁽⁶⁾	Determinant	reporting value	standard (or best equivalent)	Freshwater	Transitional (estuaries) and coastal waters
Non- hazardous pollutant	Priority substance	Isoproturon	-	9 ⁽⁴⁾	0.3 ^(6a)	0.3 ^(6a)
Hazardous substance	Priority substance	Simazine	0.03 ⁽⁷⁾	2 ⁽⁴⁾	1 ^(6a)	1 ^(6a)
Hazardous substance	Priority hazardous substance	Trifluralin	0.01 ⁽⁷⁾	20 ⁽⁴⁾	0.03 ^(6a)	0.03 ^(6a)
(Not determined)	From 22/12/18: Priority substance	Dichlorovos	-	-	From 22/12/18: 6.0E-4 ^(6a)	From 22/12/18: 6.0E-5 ^(6a)
Hazardous substance	From 22/12/18: Priority substance	Heptachlor and heptachlor epoxide	-	0.03 ⁽²⁾	From 22/12/18: 2.0E-7 ^(6a)	From 22/12/18: 1.0E-08 ^(6a)
			Miscellaneous			
None	Specific pollutant	Triclosan (antibacterial agent)	-	-	0.1 ^(6a)	0.1 ^(6a)
Hazardous substance	From 22/12/18: Priority hazardous substance	Perfluoro-octane sulfonic acid (and its derivatives) (PFOS)	-	-	From 22/12/18: 6.5E-4 ^(6a)	From 22/12/18: 1.3E-4 ^(6a)
Hazardous substance	From 22/12/18: Priority hazardous substance	Hexabromo cyclododecane (HBCDD)	-	-	From 22/12/18: 0.0016 ^(6a)	From 22/12/18: 0.0008 ^(6a)



Substanc	ce classification		Target concentrations (μg/l)			
			Minimum	UK drinking water	EQS or best	equivalent
Groundwater receptors ⁽⁵⁾	Surface water receptors ⁽⁶⁾	Determinant	reporting value	standard (or best equivalent)	Freshwater	Transitional (estuaries) and coastal waters

Notes:

- *1 Please note that although iron is listed in the 2015 Direction as 1.000 μg/l, the EQS remains at 1mg/l in Scotland and it is assumed this is an error and should read either 1,000 or 1000μg/l.
- *2 Please note that although Isodrin is not listed in name within the group of "Cyclodiene pesticides" in Table 1 of Schedule 3 Part 3 of the 2015 Direction⁽⁶⁾, the CAS number for Isodrin (465-73-6) **is** listed and therefore it is assumed that it has been missed off the named list of substances.
- *3 Total petroleum hydrocarbons is used for consistency, but is an analytical method-defined measurement for a mixture of hydrocarbons subject to environmental analysis¹¹.
- "Bioavailable" in relation to copper, zinc, nickel and manganese (but not lead) is the generic EQSbioavailable (Ga) derived from the Metal Bioavailability Assessment Tool (M-BAT) developed by the Water Framework Directive UK Technical Advisory Group (WFDTAG). Exceedance of this value should prompt a site-specific assessment using the M-BAT with pH, DOC and Ca to derive a site-specific EQS termed the PNEC dissolved. http://www.wfduk.org/resources/rivers-lakes-metal-bioavailability-assessment-tool-m-bat.

For zinc, if there is an exceedance of the EQSbioavailable in an initial GQRA, Tier 2 required that the EQS for zinc should also have the ambient background concentration of zinc added as well

^{&#}x27;-' A target concentration is not available.

^{\$}Please note that total ammonia (NH₄+ and NH₃) is equivalent to ammoniacal nitrogen in laboratory reports



Table 2: World Health Organization (WHO) guide values for TPH CWG fractions in drinking water $^{(13)}$ (as referenced in CL:AIRE, 2017 $^{(11)}$)

TPH CWG fraction	WHO guide value for drinking water ⁽¹³⁾ (µg/l)			
Aliphatic fractions:				
Aliphatic EC5-EC6	15,000			
Aliphatic >EC6-EC8	15,000			
Aliphatic >EC8-EC10	300			
Aliphatic >EC10-EC12	300			
Aliphatic >EC12-EC16	300			
Aliphatic >EC16-EC21	-			
Aliphatic >EC21-EC35	-			
Aromatic fractions:				
Aromatic EC5-EC6	10 (benzene)			
Aromatic >EC6-EC8	700 (toluene)			
Aromatic >EC8-EC10	300 (ethyl benzene)			
	500 (xylenes)			
Aromatic >EC10-EC12	90			
Aromatic >EC12-EC16	90			
Aromatic >EC16-EC21	90			
Aromatic >EC21-EC35	90			

Reference: World Health Organisation (WHO), 2008. Petroleum products in drinkingwater. Background document for development of WHO guidelines for drinking water quality. WHO/SDE/WSH/05.08/123. World Health Organisation, Geneva⁽¹³⁾.



References

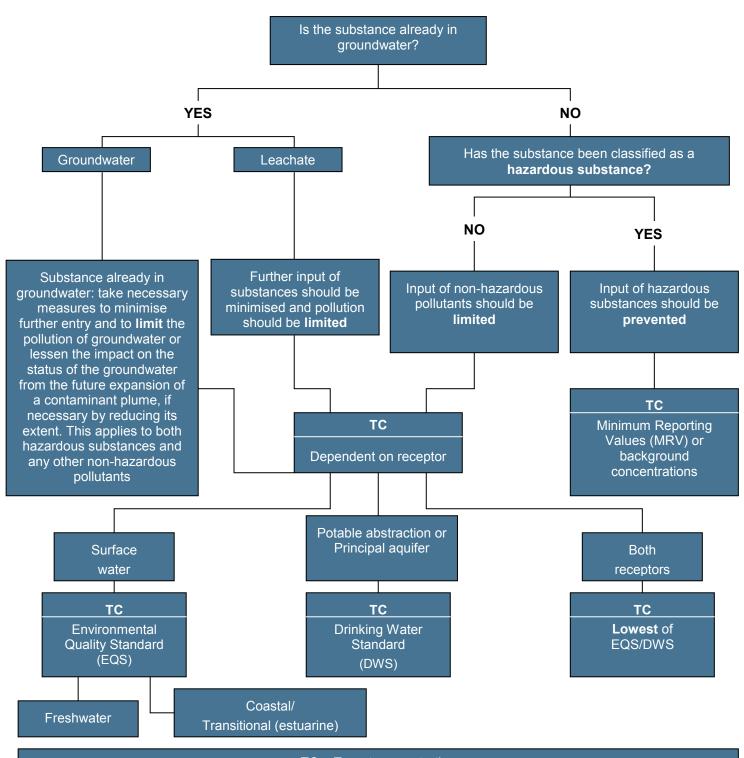
- Environment Agency (2017), 'The Environment Agency's approach to groundwater protection', version 1.0, March 2017 (formerly contained within GP3) [accessed 29 March 2017]. https://www.gov.uk/government/collections/groundwater-protection
- Environment Agency (2017), 'Land contamination groundwater compliance points: quantitative risk assessments', March 2017 (formerly contained within GP3) [accessed 29 March 2017]. https://www.gov.uk/government/collections/groundwater-protection
- 2. The Water Supply (Water Quality) Regulations 2016 (SI 2016/619)
 - 2a. Sum of chloroform, bromoform, dibromochloromethane and bromodichloromethane
 - 2b. Standard applies to individual pesticides except aldrin, dieldrin, heptachlor and heptachlor epoxide, for which a separate standard is defined.
- 3. The Private Water Supplies (England) Regulations 2016. SI 2016 / 618
- 4. WHO (2011), Guidelines for drinking-water quality, 4th edn
- 5. JAGDAG hazard substance determinations: This list contains substances that are determined to be hazardous substances or non-hazardous pollutants for the purposes of the groundwater directive 2006/118/EC. The absence of an assessment or substance from the list means an assessment has not been done yet and is presented as 'Not yet determined'; if a substance has been assessed but does not fall into either category it is presented as 'None'. For further details on how substances are assessed, see the Joint Agencies Groundwater Directive Advisory Group (JAGDAG) 'Methodology for the determination of hazardous substances in groundwater for the purposes of the groundwater directive 2006/118/EC' which is available from the JAGDAG website. The methodology is a UK –wide framework that sets criteria for how to assess whether a substance is a hazardous substances in groundwater. The list of substances can be found at:
 - https://www.wfduk.org/stakeholders/jagdag
- 6. The Water Framework Directive (Standards and Classification) Directions (England and Wales) 2015.
 - 6a. The EQS for these substances are based on a "long term mean" or an "annual average (AA)" EQS.
 - 6b. For cadmium and its compounds the EQS values vary depending on the hardness of the water as specified in five class categories (Class 1: < 40 mg CaCO3/I, Class 2: 40 to < 50 mg CaCO3/I, Class 3: 50 to < 100 mg CaCO3/I, Class 4: 100 to < 200 mg CaCO3/I and Class 5: ≥ 200 mg CaCO3/I).
 - 6c. The EQS for Mercury and hexachlorobutadiene are based on a "maximum acceptable concentration (MAC)" EQS in absence of an "annual average (AA)" EQS.
 - 6d. The EQS for chlorine in saltwater is based on the 95th percentile concentration of total residual oxidant, which refers to the sum of all oxidising agents existing in water, expressed as available chlorine.
 - 6e. The recommended saltwater standard is derived using a safety factor of 100. Where the standard is failed, it is recommended that supporting evidence of ecological damage should be obtained before committing to expensive action.
 - 6f. EQS for total ammonia is as per Schedule 3, Part 1, Table 7 of of the above directions. EQS applies to river types 1, 2 and 4 and 6 (namely upland and low alkalinity). The EQS for a lowland and high alkalinity rivers (types 3, 5 and 7) is 600μg/l (0.6mg/l).



- Additional information on the Metal Bioavailability Assessment Tool (M-BAT) is available at http://www.wfduk.org/resources/rivers-lakes-metal-bioavailability-assessment-tool-m-bat
- 7. Minimum reporting values listed at https://www.gov.uk/government/publications/values-for-groundwater-risk-assessments/hazardous-substances-to-groundwater-minimum-reporting-values (updated 13 January 2017; accessed 29 March 2017). Note target concentration for xylenes is 3 μg/l each for o-xylene and m/p xylene as it may not be possible to separate m- and p-xylene; 135 tcb, 124 tcb, 123 tcb each to 0.01 μg/l)
- 8. The Surface Waters (Abstraction for Drinking Water) (Classification) Regulations 1996 (as amended). SI 1996 / 3001
- 9. Council Directive on the Quality of Fresh Waters Needing Protection or Improvement in Order to Support Fish Life (Freshwater Fish Directive) (78/659/EEC)
- 10. WRc plc (2002), R&D Technical Report P45.
- 11. CL:AIRE, 2017. Petroleum Hydrocarbons in Groundwater: Guidance on assessing petroleum hydrocarbons using existing hydrogeological risk assessment methodologies. V1.1.
- 12. Drinking Water Inspectorate (London, UK). Environmental Information Request on MTBE in drinking water. Ref. DWI 1/10/18; dated 28 November 2006. Value is based on the odour threshold for MTBE, which is lower than a health-based guideline value
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 WHO/SDE/WSH/05.08/123. World Health Organisation, Geneva. [accessed 29 March 2017] http://www.who.int/water-sanitation-health/dwq/chemicals/petroleumproducts-2add-june2008.p



FLOW CHART TO ASSIST WITH SELECTION OF TARGET CONCENTRATIONS



TC = Target concentration

When leachate is being assessed the 'compliance point' is the groundwater body. Therefore dilution within the groundwater body may be applied <u>with caution</u> before comparing with the TC.

When directly assessing a receptor, e.g., a river, the appropriate TC should be selected.

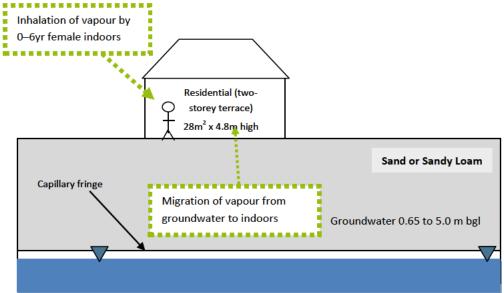


Generic groundwater assessment criteria (GrAC) for human health: residential scenario (child receptor)

Background

Volatile organic compounds (VOC) in groundwater have the potential to pose risks to residential site end users via indoor and outdoor inhalation exposure. Due to significant dilution effects in outdoor air, inhalation risk is dominated by indoor exposure. The GrAC conceptual site model (CSM) is shown in Figure 1 (not to scale).

Figure 1: GrAC conceptual model for a generic residential scenario



RSK GrAC derivation

Model selection

The Society for Brownfield Risk Assessment (SoBRA) published a set of generic assessment criteria for assessing vapour risk to human health from volatile contaminants in groundwater in February 2017⁽¹⁾. The criteria were developed for a list of common VOC using the Environment Agency Contaminated Land Exposure Assessment (CLEA) tool⁽²⁾ based on a sand soil type and a groundwater depth of 0.65 m below foundation base level. The CLEA tool is not designed to directly model VOC in groundwater and the SoBRA generic criteria are recognised as being conservative since calculations in CLEA are based on three-phase partitioning in the unsaturated zone between soil, soil vapour and soil moisture, with the latter taken by SoBRA as a groundwater equivalent. This method does not take account of the presence of a semi-saturated capillary fringe above the water table, which will serve to provide some mitigation to vertical soil vapour migration.

RSK GrAC are calculated using the RBCA Toolkit for Chemical Releases (version 2.6) with the Johnson and Ettinger model, based on the CSM in Figure 1 for a small terrace house (as defined in SR3⁽³⁾, Table 4.21) and which allows consideration of a capillary fringe. The capillary fringe is



the subsurface layer in which groundwater seeps up from a water table by capillary action to partially fill soil pores.

The RBCA model was used in preference to the Environment Agency Contaminated Land Exposure Assessment (CLEA) tool⁽²⁾, as the CLEA tool is not designed to directly model VOC in groundwater and does not take account of the presence of a capillary zone.

Conceptual model

In accordance with SR3⁽³⁾, the residential scenario considers risks to a female child between the ages of 0 and 6 years old as the highest risk scenario.

The pollutant linkage considered in production of the GrAC is the volatilisation of compounds from groundwater and subsequent vapour inhalation by residents while indoors. Figure 1 illustrates this linkage. Although the outdoor air inhalation pathway is also valid, this contributes little to the overall risks owing to the dilution of VOC in outdoor air. RBCA does not take direct account of the presence of VOC from non-aqueous phase chemicals but highlights when the assessment criterion exceeds the solubility limit of the pure compound.

Input selection – chemical and toxicological parameters

Key parameters used in the RBCA model are listed and justified in Table 1. The most up-to-date published chemical and toxicological data was obtained from EA Report SC050021/SR7⁽²⁾, the EA TOX⁽⁵⁾ reports, and published by Nathanial et al.,⁽⁶⁾, as appropriate. Toxicological and specific chemical parameters for 1,2,4-trimethylbenzene and methyl tertiary-butyl ether (MTBE) were obtained from the CL:AIRE Soil Generic Assessment Criteria report⁽⁷⁾.

The toxicological input parameters are associated with minimal risk, rather than low risk.

For petroleum hydrocarbon fractions, aromatic hydrocarbons C5–C8 were not modelled, as this range comprises benzene (>EC5-EC7) and toluene (>EC7-EC8), which are modelled separately.

For the GrAC, the Health Criteria Values (HCV) used in the modelling were derived using the toxicological data for the Soil Assessment Criteria, amended as follows:

- A child weighing 13.3kg (average of 0-6 year old female in accordance with Table 4.6 of SR3⁽³⁾) and breathing 8.77m³ (average daily inhalation rate for a 0-6yr old female in accordance with SP1010 final project report for the C4SL (Table 3.2⁽⁸⁾) and USEPA data⁽⁹⁾
- Background inhalation (mean daily intake (MDI)) for a child (Age Classes 1-6)
- Residential amendments to the MDI for younger age groups following Table 3.4 and Section 3.4.1 of SR2⁽¹⁰⁾,; amended to reflect average daily inhalation rates in accordance with SP1010 final project report for the C4SL (Table 3.2⁽⁸⁾) and USEPA data⁽⁹⁾. Correction factors are presented in Table 1.



Table 1: Correction factors used to adjust adult MDI to younger age groups

Age Class	Body weight (kg) ¹	Inhalation rate (m³/day)²	Correction factor for inhalation MDI ³
1	5.6	5.4	0.34
2	9.8	8	0.51
3	12.7	8.9	0.57
4	15.1	10.1	0.64
5	16.9	10.1	0.64
6	19.7	10.1	0.64
17	70	15.7	-
Mean (AC1-6)	13.3	8.8	0.56

Notes

The amended HCV used in the derivation of the RSK GrAC are presented in Table 2.

Note on Trimethylbenzenes

For trimethylbenzenes the CL:AIRE report⁽⁷⁾ based background inhalation from non-soil sources (MDI) on a Dutch study from 1985, which is reported to have identified an average daily dose of 1,2,4-trimethylbenzene of 86 ug d⁻¹ (1,3,5-trimethylbenzene was 20.5 ug d⁻¹). This dose value was based on the upper end of the identified concentration range of 1,2,4-trimethylbenzene (2.46 – 5.66 ug m⁻³) and was used to calculate an a MDI of 1.23 ug kg⁻¹ bw d⁻¹ for a 70 kg adult breathing 20 m³ of air daily.

The approach recommended in SR2⁽¹⁰⁾, and also adopted for the C4SLs⁽⁸⁾, for non-carcinogenic (threshold) compounds such as trimethylbenzenes is to subtract the MDI from the tolerable daily intake (TDI) to obtain a tolerable daily intake from soil (TDSI) in units of ug kg⁻¹ bw d⁻¹. For 1,2,4-trimethylbenzene, the adult MDI from the Dutch study used in the CL:AIRE report⁽⁷⁾ (1.23 ug kg⁻¹ bw d⁻¹) is a significant proportion of the TDI (2.0 ug kg⁻¹ bw d⁻¹), resulting in a low TDSI (1.0 ug kg⁻¹ bw d⁻¹) when the 50% rule is applied (i.e. TDSI = TDI * 0.5 when MDI is high relative to TDI). This TDSI equates to an Inhalation Reference Concentration (or modified Health Criteria Value) for adults of 3.4 ug m⁻³ (70 kg adult breathing 15.7 m³ d⁻¹).

By comparison the adult inhalation modified HCV for benzene is 6.2 ug m⁻³, which is proven human carcinogen (non-threshold compound).

¹Body weight from CLEA v1.071

² Inhalation rate from Table 3.2 of the SP1010 final project report for the C4SL⁽⁸⁾

³ Inhalation correction factors are the ratio of the average male and female inhalation rates for each age class to the adult rate at age class 17 (age 16–59 years) and are based on the rates used by the Category 4 Screening Levels to derive the C4SLs⁽⁸⁾, following the methodology in SR2⁽¹⁰⁾.



Table 2: Amended Health Criteria Values

	1
	Modified HCV (mg/m³)
voc/svoc	Child (Residential)
MTBE	1.0803
Benzene	0.0021
Toluene	2.1164
Ethylbenzene	0.1113
Xylenes	0.0834
Trimethybenzenes	0.0026
TPH Aliph EC5-EC6	3.7913
TPH Aliph >EC6-EC8	3.7913
TPH_Aliph >EC8-EC10	0.2199
TPH Aliph >EC10-EC12	0.2199
TPH Aliph >EC12-EC16	0.2199
TPH_Arom >EC8-EC10	0.0455
TPH_Arom >EC10-EC12	0.0455
TPH Arom >EC12-EC16	0.0455
Acenaphthene	0.0910
Acenaphthylene	0.0910
Naphthalene	0.0011
Vinyl chloride	0.0005
Dichloroethane-1,2	0.0002
Tetrachloroethene	0.0083
Carbon tetrachloride	0.0025
Trichloroethane-1,1,1	0.9099
Trichloroethene	0.0009
Tetrachloroethane 1,1,2,2 & 1,1,1,2	0.0086
1,1,2-Trichloroethane	0.0073
1,1-dichloroethene	0.0864
Chloroethane	4.3318
Chloromethane	0.0039
Dichloromethane	0.1781

The MDI for 1,2,4-trimethylbenzene is considered by RSK to be overly conservative for the following reasons:

- The Dutch 1985 study is dated and air quality has improved since this time
- The maximum value in the range (5.66 ug m⁻³) was used in calculating the MDI
- Experience has shown that trimethylbenzenes often appear to drive inhalation risks to a greater extent than benzene, even though the latter is carcinogenic and more volatile.

As an alternative to the 1985 Dutch study, RSK have obtained automated roadside air quality monitoring data for the UK from www.uk-air.defra.gov.uk/. The average concentration of 1,2,4-trimethylbenzene measured during 2015 at Eltham, south-east London (urban) was 0.309 ug m⁻³,



significantly lower than that identified in the Dutch study and used by CL:AIRE⁽⁷⁾ for calculation of a MDI. Whilst an average concentration of 1,2,4-trimethylbenzene in UK urban and rural areas is likely to be significantly below 0.0.309 ug m⁻³, this value is considered to be suitably conservative for the calculation of a modified HCV for trimethylbenzenes in the UK.

On this basis, the HCV for 1,2,4-trimethylbenzene for adults and children was calculated as 8.5 ug m⁻³ (0.0085 mg m⁻³) and 2.6 ug m⁻³ (0.0026 mg m⁻³), respectively (see Table 3). Due to the paucity of toxicological data for 1,2,3-trimethylbenzene and 1,3,5-trimethylbenzene the modified HCV for 1,2,4-trimethylbenzene is considered suitable for assessing total trimethylbenzenes.

Note on aqueous solubility and the RSK GrAC

Where the modelled assessment criteria, or the modelled assessment criteria with the correction factor applied to those contaminants specified below, exceeds the aqueous solubility limit the assessment criteria defaults to this concentration and consequently the GrAC is set at the limit of solubility. These assessment criteria are shaded in red in Table 4.

The theoretical aqueous solubility is the maximum amount of a single chemical that will dissolve in pure water at a specified temperature. Above this concentration, the chemical will exist in the non-aqueous phase (i.e. in its natural physical form as a solid, liquid (NAPL) or gas). If the contaminant, based on its toxicity, is not considered to pose a risk to human health at the aqueous solubility concentration then the contaminant can be considered not to pose a risk to human health. Where the GrAC is set at the aqueous solubility limit (shaded in red on Table 4), this is not a risk based assessment criteria but is indicative of the maximum amount of chemical that would be found dissolved in the water. Therefore an exceedance of the RSK GrAC set at the aqueous solubility limit is <u>not</u> indicative that there may be potential risks to human health. It should be noted that for certain contaminants (e.g. the lighter petroleum hydrocarbon fractions) the aqueous solubility is very low and may be at, or below, the laboratory method detection limit. It should also be noted that non-aqueous phase may exist where concentrations of individual compounds are well below their solubility limits where they are part of a mixture, in accordance with Raoult's Law.

Input selection - physical parameters

For the residential scenario, the CLEA default building is a small, two-storey terrace house with a concrete ground-bearing slab as detailed in Table 3. Environment Agency document SR3⁽³⁾ notes this residential building type to be the most conservative in terms of potential for vapour intrusion. The building parameters used in the production of the RSK GrACs are the default CLEA v1.071 inputs presented in Table 3.3 of SR3⁽³⁾.

The RSK GrAC have been calculated for both Sand and Sandy Loam soils. The soil parameters used in the derivation of the RSK GrAC are those presented in Table 3.1 of SR3⁽³⁾.

The RSK GrAC have been derived for groundwater depths of 0.65 m, 1.5 m, 2.5 m and 5.0 m below ground level, incorporating a capillary fringe (see Table 4).

Input selection - attenuation factors

In line with recommendations provided in Environment Agency SR3⁽³⁾ a sub-surface to indoor attenuation factor of 10 has been applied to certain RBCA derived 'site-specific target levels'. SR3⁽³⁾ states that, as a general rule of thumb, it is recognised that estimating vapour phase concentrations from dissolved and sorbed phase petroleum hydrocarbons by using partition



coefficients are at least a factor of ten higher than those likely to be measured on-site. This difference is likely to be due to a number of factors, however aerobic biodegradation in the unsaturated zone is believed to be largely responsible. RSK has therefore applied this attenuation factor to all volatile petroleum hydrocarbon fractions (including BTEX, trimethylbenzenes and the polycyclic aromatic hydrocarbons (PAH) naphthalene, acenaphthene and acenaphthylene). No such attenuation factors have been applied to other non-hydrocarbon chemical species, including chlorinated hydrocarbons or fuel oxygenates such as MtBE.

Convective (volumetric) air flow through foundation cracks (Q_{soil}) is a sensitive parameter in the calculation of GrAC and has been calculated within RBCA on a soil-specific basis for Sand and Sandy Loam in a residential exposure scenario (see Table 3). This approach is less conservative than using the default Q_{soil} value recommended in SR3⁽³⁾ for a Sandy Loam (25 cm³ s⁻¹) and used in the CLEA model (version 1.071) for Sandy Loam (and Sand) soils (25 cm³ s⁻¹) in a residential scenario.



Table 3: Residential scenario – RBCA inputs

Parameter	Unit	Value	Justification
Receptor – female child			
Averaging time	Years	6	From Box 3.1, SR3 ⁽³⁾
Receptor weight	kg	13.3	Average of CLEA 0-6 year old female data, Table 4.6, SR3 ⁽³⁾
Exposure duration	Years	6	From Box 3.1, report , SR3 ⁽³⁾
Exposure frequency	Days yr ⁻¹	350	Weighted using occupancy period of 23 hours per day for 365 days of the year
Soil type – sand			
Total porosity	-	0.54	
Volumetric water content – unsaturated (vadose) zone	-	0.24	CLEA value for sand. Parameters for sand from Table 4.4, SR3 ⁽³⁾ . Volumetric water content in the vadose zone is a
Volumetric air content - unsaturated (vadose) zone	-	0.30	highly sensitive parameter within the model and potentially highly variable in the field.
Dry bu k density	g cm ⁻³ or kg L ⁻¹	1.18	
Volumetric water content – capillary zone	-	0.35	Calculated using SR3 Equation 4.1. Value taken as the average moisture content calculated for suction heads (cm H ₂ O); 0 (i.e. saturated), 10, 20, 30, 40, 50 (i.e. unsaturated soil at field capacity). This is a highly sensitive parameter within the model.
Volumetric air content - capillary zone	-	0.19	Calculated from total porosity and volumetric water content of capillary zone. This is a highly sensitive parameter within the model.
Vertical hydraulic conductivity	cm d ⁻¹	636	CLEA value for saturated conductivity of sandy loam, Table 4.4, SR3 ⁽³⁾ equivalent to 7.36 E-03 cm s ⁻¹
Vapour permeability	m²	7.54 E-12	Calculated for sand using equations in Appendix 1, SR3 ⁽³⁾
Capillary zone thickness	m	0.25	Taken from C W Fetter, Applied Hydrogeology 4 th Ed, 1994 ⁽¹¹⁾ and R Heath, Basic groundwater hydrology 1992 ⁽¹²⁾ for a medium sand
Fraction organic carbon	%	0.0058	Equivalent to SOM = 1%. Note that GrAC are independent on FOC/SOM content since partitioning is assumed to be between aqueous and vapour phases only
Soil type – sandy loam	•	•	
Total porosity	-	0.53	
Volumetric water content – unsaturated (vadose) zone	-	0.33	CLEA value for sandy loam. Parameters for sandy loam from Table 4.4, SR3 ⁽³⁾ . Volumetric water content in the vadose
Volumetric air content - unsaturated (vadose) zone	-	0.20	zone is a highly sensitive parameter within the model and potentially highly variable in the field.
Dry bu k density	g cm ⁻³ or kg/L	1.21	
Volumetric water content – capillary zone	-	0.42	Calculated using SR3 Equation 4.1 ⁽³⁾ . Value taken as the average moisture content calculated for suction heads (cm H ₂ O); 0 (i.e. saturated), 10, 20, 30, 40, 50 (i.e. unsaturated soil at field capacity). This is a highly sensitive parameter within the model.
Volumetric air content - capillary zone	-	0.11	Calculated from total porosity and volumetric water content of capillary zone. This is a highly sensitive parameter within the model.



Parameter	Unit	Value	Justification
Vertical hydraulic conductivity	cm d ⁻¹	308	CLEA value for saturated conductivity of sandy loam, Table 4.4, SR3 ⁽³⁾ equivalent to 3.56E-3 cm s ⁻¹
Vapour permeability	m²	3.05 E-12	Calculated for sandy loam using equations in Appendix 1, SR3 ⁽³⁾
Capillary zone thickness	m	0.4	Taken from R Heath, Basic Groundwater Hydrology 1992 ⁽¹²⁾ for a fine sand. Note: C W Fetter, Applied Hydrogeology 4 th Ed, 1994 ⁽¹¹⁾ value for fine sand is 0.5 m
Fraction organic carbon	%	0.0058	Equivalent to SOM = 1%. Note that GrAC are independent on FOC/SOM content since partitioning is assumed to be between aqueous and vapour phases only
Building – small terrace house	•		
Building volume/area ratio	m	4.8	T-11-0.0 CD0(3)
Foundation area	m²	28	Table 3.3, SR3 ⁽³⁾
Foundation perimeter	m	21.16	Calculated using Equation A2 in SR3 ⁽³⁾ , which assumes the building to be of square proportions.
Building air exchange rate	d ⁻¹	12	
Depth to bottom of foundation slab	m	0.15	Table 3.3, SR3 ⁽³⁾ Building air exchange rate equivalent to 1.4 E-04 s ⁻¹
Foundation thickness	m	0.15	
Foundation crack fraction	-	0.00151	Calculated from floor crack area of 423cm ² and building footprint of 28m ² in Table 4.21, SR3 ⁽³⁾
Volumetric water content of cracks	-	0.24 / 0.33	For sand / sandy loam, assumed equal to underlying soil type in assumption that cracks become filled with
Volumetric air content of cracks	-	0.30 / 0.20	unsaturated zone soil over time. Parameters for sand and sandy loam from Table 4.4, SR3 ⁽³⁾
Indoor/outdoor differential pressure	Pa	3.1	From Table 3.3, SR3 ⁽³⁾ Equivalent to 31 g/cm/s ²
Convective air flow through cracks (Q _{soil}) - Sand	m³ s ⁻¹	3.4 E-05	Soil-specific calculated parameter in RBCA equivalent (and cross checked) with equations A1, A2, A3, A8, A9 in SR3 ⁽³⁾ . Equivalent to 34 cm ³ s ⁻¹
Convective air flow through cracks (Q _{soil}) – Sandy Loam	m³ s ⁻¹	1.4 E-05	Soil-specific calculated parameter in RBCA equivalent (and cross checked) with equations A1, A2, A3, A8, A9 in SR3 ⁽³⁾ . Equivalent to 14 cm ³ s ⁻¹

RSK GrAC derivation outputs

The RSK GrACs are presented in Table 4.

Within the RSK GrAC the following should be noted:

- GrAC do not take account of outdoor inhalation exposure to VOC, which is considered to contribute minimally to overall inhalation exposure
- GrAC do not take account of other exposure routes potentially relevant to VOC in shallow groundwater such as direct contact or root uptake
- No biodegradation is assumed to occur in the unsaturated zone. Where aerobic conditions on site are known to exist the GrAC for hydrocarbons may therefore be conservative
- GrAC do not take account of preferential flow into buildings such as through unsealed service entries. In such circumstances GrAC may not be appropriate for use
- GrAC are based on a soil vapour intrusion CSM and are not appropriate for use when the foundation is in direct contact with contaminated groundwater



- GrAC assume that the capillary fringe is un-contaminated with VOC, which is unlikely, particularly where groundwater levels are variable
- GrAC set at the theoretical aqueous solubility limit are not considered to pose a risk to human health
- GrAC do not take into account the interaction between contaminants and the influence this may have on the theoretical aqueous solubility
- GrACs are only applicable to dissolved phase contaminants where the modelled assessment criteria is below the aqueous solubility limits



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				Table 4	4: RSK GrA	C (ug/l)			
					RESIDENTIAL				
		SA	ND		SANDY LOAM				
GW Depth (m)	0.65	1.5	2.5	5		0.65	1.5	2.5	5
					-				
Metals					_				
Elemental mercury	2.5	3.6	5.0	8.4		14.3	18.5	23.4	35.8
Methyl mercury	21550	27220	33880	50540]	46300	48510	51110	5761
41.70									
/olatile Organic Compounds	470	070	000	1400	1 1	0000	0040	4540	000
Benzene	470	670	900	1490		2900	3640	4510	668
foluene	515140	590000	590000	590000		590000	590000	590000	5900
Ethylbenzene	24300	35190	48000	80020		156380	180000	180000	1800
Kylene - m	22610	32750	44670	74480		144250	181800	200000	2000
(ylene - o	27570	39950	54500	90900		174260	173000	173000	1730
(ylene - p	23640	34230	46700	77860		150470	189710	200000	2000
Total xylene	22610	32750	44670	74480		144250	173000	173000	1730
Methyl tertiary-Butyl ether (MTBE)	185010	267500	364520	607070		945700	1245710	1598660	24810
richloroethene	13	18	25	41		82	100	130	190
etrachloroethene	80	120	160	260		520	650	810	120
,1,1-Trichloroethane	7110	10230	13910	23090		46230	57820	71450	1055
.,1,1,2 Tetrachloroethane	550	800	1100	1830		3330	4250	5330	804
,1,2,2-Tetrachloroethane	3620	5320	7320	12320		14600	20600	27650	452
Carbon Tetrachloride	12	17	24	39		79	98	120	18
1,2-Dichloroethane	20	28	38	63		100	140	170	26
/inyl Chloride	1.3	1.8	2.4	4.0		8	10	12	18
1,2,4-Trimethylbenzene	980	1430	1960	3270]	6240	7900	9850	147
Couri Valetile Overnie Commounds	_								
Semi-Volatile Organic Compounds Acenaphthene	4100	4100	4100	4100	1 1	4100	4100	4100	410
Acenaphthylene	7950	7950	7950	7950		7950	7950	7950	795
Naphthalene	5100	7530	10380	17510		19000	19000	19000	190
					<u>.</u>				
Petroleum Hydrocarbons		T	1	1	7 .		1		
Aliphatic hydrocarbons EC5-EC6	4170	5900	7930	13020]	26560	32990	35900	359
Aliphatic hydrocarbons >EC6-EC8	3210	4540	5370	5370		5370	5370	5370	537
Aliphatic hydrocarbons >EC8-EC10	120	170	230	380		427	427	427	42
Aliphatic hydrocarbons >EC10-EC12	33.9	33.9	33.9	33.9		33.9	33.9	33.9	33.
Aliphatic hydrocarbons >EC12-EC16	0.759	0.759	0.759	0.759		0.759	0.759	0.759	0.7
Aromatic hydrocarbons >EC8-EC10	4150	5870	7900	12960		25730	32120	39630	5840
Aromatic hydrocarbons >EC10-EC12	14480	20510	24500	24500		245000	245000	245000	2450
ATOTTALIC HYUTOCALDONS ZECTO-ECTZ			5750	5750		5750	5750	5750	575

Values less than 100 have not been rounded up or down; values greater than 100 have been rounded to the nearest 10.

Highlighted values exceed solubility limit for the pure compound in water (aqueous solubility); GrAC defaults to the limit of solubility.

No vadose zone biodegradation considered

Sub-surface to indoor air correction factor of 10 applied to all petroleum (non-chlorinated) hydrocarbons

All GrAC are for 1% SOM (0.0058 FOC)



GENERIC ASSESSMENT CRITERIA FOR POTABLE WATER SUPPLY PIPES

A range of pipe materials is available and careful selection, design and installation is required to ensure that water supply pipes are satisfactorily installed and meet the requirements of the Water Supply (Water Fittings) Regulations 1999 in England and Wales, the Byelaws 2000 in Scotland and the Northern Ireland Water Regulations. The regulations include a requirement to use only suitable materials when laying water pipes and laying water pipes without protection is not permitted at contaminated sites. The water supply company has a statutory duty to enforce the regulations.

Contaminants in the ground can pose a risk to human health by permeating potable water supply pipes. To fulfil their statutory obligation, UK water supply companies require robust evidence from developers to demonstrate either that the ground in which new plastic supply pipes will be laid is free from specific contaminants, or that the proposed remedial strategy will mitigate any existing risk. If these requirements cannot be demonstrated to the satisfaction of the relevant water company, it becomes necessary to specify an alternative pipe material on the whole development or in specific zones.

In 2010, UK Water Industry Research (UKWIR) published *Guidance for the Selection of Water Supply Pipes to be used in Brownfield Sites* (Report Ref. No. 10/WM/03/21). This report reviewed previously published industry guidelines and threshold concentrations adopted by individual water supply companies.

The focus of the UKWIR research project was to develop clear and concise procedures, which provide consistency in the pipe selection decision process. It was intended to provide guidance that can be used to ensure compliance with current regulations and to prevent water supply pipe failing prematurely due to the presence of contamination.

The report concluded that in most circumstances only organic contaminants pose a potential risk to plastic pipe materials and Table 3.1 of the report provides threshold concentrations for polyethylene (PE) and polyvinyl chloride (PVC) pipes for the organic contaminants of concern. The report also makes recommendations for the procedures to be adopted in the design of site investigations and sampling strategies, and the assessment of data, to ensure that the ground through which water supply pipes will be laid is adequately characterised.

Risks to water supply pipes have therefore been assessed against the threshold concentrations for PE and PVC pipe specified in Table 3.1 of Report 10/WM/03/21, which have been adopted as the GAC for this linkage and are reproduced in Table A3 below.

Since water supply pipes are typically laid at a minimum depth of 0.75m below finished ground levels, sample results from depths between 0.5m and 1.5m below finished level are generally considered suitable for assessing risks to water supply. Samples outside these depths can be used, providing the stratum is the same as that in which water supply pipes are likely to be



located. The report specifies that sampling should characterise the ground conditions to a minimum of 0.5m below the proposed depth of the pipe.

It should be noted that the assessment provided in this report is a guide and the method of assessment and recommendations should be checked with the relevant water supply company.

Table A3: Generic assessment criteria for water supply pipes

		Pipe materia	ıl
		GAC (mg/kg)
	Parameter group	PE	PVC
1	Extended VOC suite by purge and trap or head space and GC-MS with TIC	0.5	0.125
	(Not including compounds within group 1a)		
1a	BTEX + MTBE	0.1	0.03
2	SVOCs TIC by purge and trap or head space and GC-MS with TIC (aliphatic and aromatic $C_5\!\!-\!\!C_{10}$)	2	1.4
	(Not including compounds within group 2e and 2f)		
2e	Phenols	2	0.4
2f	Cresols and chlorinated phenols	2	0.04
3	Mineral oil C ₁₁ –C ₂₀	10	Suitable
4	Mineral oil C ₂₁ –C ₄₀	500	Suitable
5	Corrosive (conductivity, redox and pH)	Suitable	Suitable
Spec	ific suite identified as relevant following site investigation		
2a	Ethers	0.5	1
2b	Nitrobenzene	0.5	0.4
2c	Ketones	0.5	0.02
2d	Aldehydes	0.5	0.02
6	Amines	Not suitable	Suitable

Notes: where indicated as 'suitable', the material is considered resistant to permeation or degradation and no threshold concentration has been specified by UKWIR.



1 RISK ASSESSMENT METHODOLOGY

Risk is a combination of the 'likelihood' of an event occurring and the magnitude of its 'consequences'. Therefore, in order to assess risk, both the likelihood and the consequences of an event must be taken into account. RSK Group Plc has adopted guidance provided in CIRIA C552 for use in the production of risk assessments.

The likelihood of an event can be classified on a four point system using the following terms and definitions based on CIRIA C552:

Highly likely: The event appears very likely in the short term and almost inevitable over the long term, or there is evidence at the receptor of harm or pollution;

Likely: It is probable that an event will occur, or circumstances are such that the event is not inevitable, but possible in the short term and likely over the long term;

Low likelihood: Circumstances are possible under which an event could occur, but it is not certain even in the long term that an event would occur and it is less likely in the short term;

Unlikely: Circumstances are such that it is improbable the event would occur even in the long term.

The severity can be classified using a similar system similarly based on CIRIA C552:

Severe: Short term (acute) risk to human health likely to result in 'significant harm' as defined by the Environment Protection Act 1990, Part IIA. Short-term risk of pollution of sensitive water resources. Catastrophic damage to buildings or property. Short term risk to an ecosystem or organism forming part of that ecosystem (note definition of ecosystem in 'Draft Circular on Contaminated Land', DETR 2000);

Medium: Chronic damage to human health ('significant harm' as defined in 'Draft Circular on Contaminated Land', DETR 2000), pollution of sensitive water resources, significant change in an ecosystem or organism forming part of that ecosystem (note definition of ecosystem in 'Draft Circular on Contaminated Land', DETR 2000);

Mild: Pollution of non-sensitive water resources. Significant damage to crops, buildings, structures and services ('significant harm' as defined in 'Draft Circular on Contaminated Land', DETR 2000). Damage to sensitive buildings, structures or the environment; and

Minor: Harm, not necessarily significant, but that could result in financial loss or expenditure to resolve. Non-permanent human health effects easily prevented by use of personal protective clothing. Easily repairable damage to buildings, structures and services.

Once the likelihood of an event occurring and its severity have been classified, a risk category can be assigned the table below. RISK CLASSIFICATION SYSTEM (CIRIA 552)

		RISK CLASSIFICATION SYSTEM (CIRIA 552)									
			Cons	sequence							
		Severe	Medium	Mild	Minor						
ξ	Highly likely	Very high	High	Moderate	Moderate/Low						
<u> </u>	Likely	High	Moderate	Moderate/Low	Low						
robability	Low likelihood	Moderate	Moderate/Low	Low	Very Low						
, F	Unlikely	Moderate/Low	Low	Very Low	Very Low						

1



APPENDIX E - MONITORING RECORDS

(i) Gas/Groundwater Monitoring Results

[Pressures]	<u>Previous</u>	<u>During</u>	Start	<u>End</u>	Equipment Used & Remarks
Round 1 Round 2 Round 3 Round 4	- - -	Rising Rising Fluctuating Rising	1006 990 1024 1013	1007 991 1024 1014	Weather: Cloudy + Ground: Wet + Wind: Light + Air Temp: 10DegC Weather: Rain + Ground: Wet + Wind: Light + Air Temp: 11DegC Weather: Cloudy + Ground: Dry + Wind: Light + Air Temp: 12DegC Weather: Cloudy + Ground: Dry + Wind: Light + Air Temp: 4DegC

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	Date & Time of Monitoring (elapsed time)	Borehole Pressure (mb)		Gas Flow (I/hr)	Water Depth (mbgl)	Carbon Dioxide (% / vol)	Methane (% / vol)	Oxygen (% / vol)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
BH1	1	50	1	7.70		2.00 to 7.70	01/11/2018 12:00:00	1007	1007	0.0(1)	-	-	-	-	-	-	-
BH1	1	50	1			2.00 to 7.70	60 secs	-	-	0.0 _(SS)	-	-	-	-	-	-	-
BH1	1	50	1 (2)	7.70		2.00 to 7.70	01/11/2018 12:02:00	-	-	-	-	0.0	0.0	20.9	1.6	0	0
BH1	1	50	1 (2)			2.00 to 7.70	15 secs	-	-	-	-	0.1	0.0	19.2	-	51	0
BH1	1	50	1 (2)			2.00 to 7.70	30 secs	-	-	1	-	0.1	0.1	15.8	-	68	1
BH1	1	50	1 (2)			2.00 to 7.70	60 secs	-	-	-	-	0.1	0.1	15.1	-	69	1
BH1	1	50	1 (2)			2.00 to 7.70	90 secs	-	-	1	-	0.1	0.1	15.1	-	69	1
BH1	1	50	1 (2)			2.00 to 7.70	120 secs	-	-	1	-	0.1	0.1	15.1	-	69	1
BH1	1	50	1 (2)			2.00 to 7.70	180 secs	-	-	ı	-	0.1	0.0	15.5	-	65	1
BH1	1	50	1 (2)			2.00 to 7.70	240 secs	-	-	ı	-	0.0	0.0	16.1	-	58	1
BH1	1	50	1 (2)			2.00 to 7.70	300 secs	-	-	ı	-	0.0	0.0	16.6	-	53	1
BH1	1	50	1 (2)			2.00 to 7.70	360 secs	-	-	ı	-	0.0	0.0	16.9	-	49	1
BH1	1	50	1 (3)	7.70	7.75	2.00 to 7.70	01/11/2018 12:09:00	-	-	1	2.23	-	-	-	-	-	-
BH1	1	50	2	7.70		2.00 to 7.70	07/11/2018 11:39:00	991	991	0.0(1)	-	-	-	-	-	-	-
BH1	1	50	2			2.00 to 7.70	60 secs	-	-	0.0 _(SS)	-	-	-	-	-	-	-
BH1	1	50	2 (2)	7.70		2.00 to 7.70	07/11/2018 11:41:00	-	-	-	-	0.0	0.0	20.9	0.7	0	0
BH1	1	50	2 (2)			2.00 to 7.70	15 secs	-	-	-	-	0.1	0.6	18.4	-	8	0
BH1	1	50	2 (2)			2.00 to 7.70	30 secs	-	-	1	-	0.1	8.0	15.1	-	10	0

Key: I = Initial, P = Peak, SS = Steady State. Note: LEL = Lower Explosive Limit = 5% v/v.



STRUCTURAL SOILS The Old School Stillhouse Lane Bedminster Bristol BS3 4EB

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[Pressures] Previous During Start End **Equipment Used & Remarks**

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone		Borehole Pressure (mb)		Gas Flow (I/hr)	Water Depth (mbgl)	Carbon Dioxide (% / vol)	Methane (% / vol)	Oxygen (% / vol)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
BH1	1	50	2 (2)			2.00 to 7.70	60 secs	-	-	1	-	0.1	0.9	14.3	-	10	0
BH1	1	50	2 (2)			2.00 to 7.70	90 secs	-	-	-	-	0.1	0.9	14.3	-	10	0
BH1	1	50	2 (2)			2.00 to 7.70	120 secs	-	-	-	-	0.1	0.9	14.3	-	10	0
BH1	1	50	2 (2)			2.00 to 7.70	180 secs	-	-	1	-	0.1	8.0	14.3	-	10	0
BH1	1	50	2 (2)			2.00 to 7.70	240 secs	-	-	-	-	0.1	8.0	14.3	-	10	0
BH1	1	50	2 (2)			2.00 to 7.70	300 secs	-	-	-	-	0.1	8.0	14.3	-	10	0
BH1	1	50	2 (2)			2.00 to 7.70	360 secs	-	-	-	-	0.1	8.0	14.3	-	10	0
BH1	1	50	2 (3)	7.70	7.74	2.00 to 7.70	07/11/2018 11:48:00	-	-	1	2.37	-	-	-	-	-	-
BH1	1	50	3	7.70		2.00 to 7.70	16/11/2018 09:33:00	1024	1024	-0.5 _(I)	-	-	-	-	-	-	-
BH1	1	50	3			2.00 to 7.70	60 secs	-	-	0.0 _(SS)	-	-	-	-	-	-	-
BH1	1	50	3 (2)	7.70		2.00 to 7.70	16/11/2018 09:35:00	-	-	1	-	0.0	0.0	20.9	0.3	0	0
BH1	1	50	3 (2)			2.00 to 7.70	15 secs	-	-	1	-	0.6	0.3	19.8	-	35	0
BH1	1	50	3 (2)			2.00 to 7.70	30 secs	-	-	-	-	0.6	0.3	18.9	-	38	0
BH1	1	50	3 (2)			2.00 to 7.70	60 secs	-	-	1	-	0.6	0.3	18.7	-	37	0
BH1	1	50	3 (2)			2.00 to 7.70	90 secs	-	-	1	-	0.7	0.4	18.6	-	37	0
BH1	1	50	3 (2)			2.00 to 7.70	120 secs	-	-	1	-	0.7	0.4	18.6	-	37	0
BH1	1	50	3 (2)			2.00 to 7.70	180 secs	-	-	-	-	0.6	0.3	18.5	-	38	0
BH1	1	50	3 (2)			2.00 to 7.70	240 secs	-	-	ı	-	0.4	0.2	18.2	-	37	0

Key: I = Initial, P = Peak, SS = Steady State. Note: LEL = Lower Explosive Limit = 5% v/v.



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[Pressures] Previous During Start End **Equipment Used & Remarks**

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone		Borehole Pressure (mb)		Gas Flow (I/hr)	Water Depth (mbgl)	Carbon Dioxide (% / vol)	Methane (% / vol)	Oxygen (% / vol)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
BH1	1	50	3 (2)			2.00 to 7.70	300 secs	-	-	-	-	0.2	0.1	18.0	-	36	0
BH1	1	50	3 (2)			2.00 to 7.70	360 secs	-	-	-	-	0.2	0.1	17.9	-	35	0
BH1	1	50	3 (2)			2.00 to 7.70	420 secs	-	-	-	-	0.1	0.1	17.9	-	34	0
BH1	1	50	3 (2)			2.00 to 7.70	460 secs	-	-	-	-	0.1	0.1	17.9	-	33	0
BH1	1	50	3 (2)			2.00 to 7.70	540 secs	-	-	-	-	0.1	0.0	17.9	-	30	0
BH1	1	50	3 (2)			2.00 to 7.70	600 secs	-	-	-	-	0.1	0.0	17.9	-	29	0
BH1	1	50	3 (3)	7.70	7.77	2.00 to 7.70	16/11/2018 09:46:00	-	-	-	1.89	-	-	-	-	-	-
BH1	1	50	4	7.70		2.00 to 7.70	13/12/2018 11:59:00	1013	1014	0.0(1)	-	-	-	-	-	-	-
BH1	1	50	4			2.00 to 7.70	120 secs	-	-	0.0 _(SS)	-	-	-	-	-	-	-
BH1	1	50	4 (2)	7.70		2.00 to 7.70	13/12/2018 12:02:00	-	-	-	-	0.0	0.0	20.9	5.7	0	0
BH1	1	50	4 (2)			2.00 to 7.70	15 secs	-	-	-	-	0.1	0.5	20.9	-	21	0
BH1	1	50	4 (2)			2.00 to 7.70	30 secs	-	-	-	-	0.1	0.7	17.9	-	25	0
BH1	1	50	4 (2)			2.00 to 7.70	60 secs	-	-	-	-	0.1	8.0	16.8	-	24	0
BH1	1	50	4 (2)			2.00 to 7.70	90 secs	-	-	-	-	0.1	8.0	16.7	-	22	0
BH1	1	50	4 (2)			2.00 to 7.70	120 secs	-	-	-	-	0.1	8.0	16.6	-	21	0
BH1	1	50	4 (2)			2.00 to 7.70	180 secs	-	-	-	-	0.1	8.0	16.7	-	19	0
BH1	1	50	4 (2)			2.00 to 7.70	240 secs	-	-	-	-	0.1	0.6	17.0	-	16	0
BH1	1	50	4 (2)			2.00 to 7.70	300 secs	-	-	-	-	0.1	0.4	17.6	-	14	0

Key: I = Initial, P = Peak, SS = Steady State. Note: LEL = Lower Explosive Limit = 5% v/v.



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[Pressures] Previous During Start End **Equipment Used & Remarks**

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	Date & Time of Monitoring (elapsed time)	Borehole Pressure (mb)		Gas Flow (I/hr)	Water Depth (mbgl)	Carbon Dioxide (% / vol)	Methane (% / vol)	Oxygen (% / vol)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
BH1	1	50	4 (2)			2.00 to 7.70	360 secs	-	-	-	-	0.1	0.3	18.1	-	13	0
BH1	1	50	4 (2)			2.00 to 7.70	420 secs	-	-	-	-	0.1	0.2	18.3	-	13	0
BH1	1	50	4 (2)			2.00 to 7.70	480 secs	-	-	-	-	0.1	0.1	18.4	-	13	0
BH1	1	50	4 (2)			2.00 to 7.70	540 secs	-	-	-	-	0.1	0.1	18.5	-	13	0
BH1	1	50	4 (2)			2.00 to 7.70	600 secs	-	-	-	-	0.1	0.1	18.6	-	13	0
BH1	1	50	4 (3)	7.70	7.77	2.00 to 7.70	13/12/2018 12:13:00	-	-	-	1.57	-	-	-	-	-	-
	R	emarks:	Samples take	n.													
BH2	1	50	1	7.30		2.30 to 7.30	01/11/2018 12:28:00	1007	1007	0.0(1)	-	-	-	-	-	-	-
BH2	1	50	1			2.30 to 7.30	60 secs	-	-	0.0 _(SS)	-	-	-	-	-	-	-
BH2	1	50	1 (2)	7.30		2.30 to 7.30	01/11/2018 12:30:00	-	-	-	-	0.0	0.0	20.9	2.2	0	0
BH2	1	50	1 (2)			2.30 to 7.30	15 secs	-	-	-	-	0.1	0.5	10.7	-	279	0
BH2	1	50	1 (2)			2.30 to 7.30	30 secs	-	-	-	-	0.0	0.7	3.8	-	343	1
BH2	1	50	1 (2)			2.30 to 7.30	60 secs	-	-	-	-	0.0	8.0	1.8	-	332	1
BH2	1	50	1 (2)			2.30 to 7.30	90 secs	-	-	1	-	0.0	8.0	1.7	-	326	1
BH2	1	50	1 (2)			2.30 to 7.30	120 secs	-	-	-	-	0.0	8.0	1.6	-	325	1
BH2	1	50	1 (2)			2.30 to 7.30	180 secs	-	-	1	-	0.0	8.0	1.7	-	332	1
BH2	1	50	1 (2)			2.30 to 7.30	240 secs	-	-	-	-	0.0	0.7	1.9	-	342	1
BH2	1	50	1 (2)			2.30 to 7.30	300 secs	-	-	-	-	0.0	0.7	2.1	-	350	1

Former Lombard Service Station, Bristol

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STRUCTURAL SOILS The Old School Stillhouse Lane Bedminster Bristol BS3 4EB

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[Pressures] Previous During Start End **Equipment Used & Remarks**

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone		Borehole Pressure (mb)		Gas Flow (I/hr)	Water Depth (mbgl)	Carbon Dioxide (% / vol)	Methane (% / vol)	Oxygen (% / vol)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
BH2	1	50	1 (2)			2.30 to 7.30	360 secs	-	-	-	-	0.0	0.7	2.3	-	351	1
BH2	1	50	1 (3)	7.30	7.65	2.30 to 7.30	01/11/2018 12:37:00	-	-	-	2.98	-	-	-	-	-	-
BH2	1	50	2	7.30		2.30 to 7.30	07/11/2018 11:56:00	991	991	0.0(1)	-	-	-	-	-	-	-
BH2	1	50	2			2.30 to 7.30	60 secs	-	-	0.0 _(SS)	-	-	-	-	-	-	-
BH2	1	50	2 (2)	7.30		2.30 to 7.30	07/11/2018 11:58:00	-	-	-	-	0.0	0.0	20.9	1.4	0	0
BH2	1	50	2 (2)			2.30 to 7.30	15 secs	-	-	-	-	0.1	0.9	12.2	-	0	0
BH2	1	50	2 (2)			2.30 to 7.30	30 secs	-	-	-	-	0.1	1.2	3.3	-	2	0
BH2	1	50	2 (2)			2.30 to 7.30	60 secs	-	-	-	-	0.1	1.3	3.0	-	2	0
BH2	1	50	2 (2)			2.30 to 7.30	90 secs	-	-	-	-	0.1	1.3	2.9	-	2	0
BH2	1	50	2 (2)			2.30 to 7.30	120 secs	-	-	-	-	0.1	1.3	2.9	-	2	0
BH2	1	50	2 (2)			2.30 to 7.30	180 secs	-	-	-	-	0.1	1.3	2.9	-	2	0
BH2	1	50	2 (2)			2.30 to 7.30	240 secs	-	-	-	-	0.1	1.2	3.3	-	2	0
BH2	1	50	2 (2)			2.30 to 7.30	300 secs	-	-	-	-	0.1	1.2	3.1	-	2	0
BH2	1	50	2 (2)			2.30 to 7.30	360 secs	-	-	-	-	0.1	1.3	3.2	-	2	0
BH2	1	50	2 (2)			2.30 to 7.30	420 secs	-	-	-	-	0.1	1.3	2.7	-	2	0
BH2	1	50	2 (2)			2.30 to 7.30	480 secs	-	-	-	-	0.1	1.2	2.9	-	2	0
BH2	1	50	2 (2)			2.30 to 7.30	540 secs	-	-	-	-	0.1	1.3	2.9	-	2	0
BH2	1	50	2 (2)			2.30 to 7.30	600 secs	-	-	-	-	0.1	1.3	2.7	-	2	0

Former Lombard Service Station, Bristol

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STRUCTURAL SOILS The Old School Stillhouse Lane Bedminster Bristol BS3 4EB

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[Pressures] Previous During Start End **Equipment Used & Remarks**

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	Date & Time of Monitoring (elapsed time)	Borehole Pressure (mb)		Gas Flow (I/hr)	Water Depth (mbgl)	Carbon Dioxide (% / vol)	Methane (% / vol)	Oxygen (% / vol)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
BH2	1	50	2 (3)	7.30	7.63	2.30 to 7.30	07/11/2018 12:09:00	-	-	-	3.00	-	-	-	-	-	-
BH2	1	50	3	7.30		2.30 to 7.30	16/11/2018 10:37:00	1024	1024	0.0(1)	-	-	-	-	-	-	-
BH2	1	50	3			2.30 to 7.30	60 secs	-	-	0.0 _(SS)	-	-	-	-	-	-	-
BH2	1	50	3 (2)	7.30		2.30 to 7.30	16/11/2018 10:39:00	-	-	-	-	0.0	0.0	20.9	0.3	0	0
BH2	1	50	3 (2)			2.30 to 7.30	15 secs	-	-	-	-	0.1	0.0	20.1	-	0	0
BH2	1	50	3 (2)			2.30 to 7.30	30 secs	-	-	-	-	0.0	0.0	18.9	-	1	0
BH2	1	50	3 (2)			2.30 to 7.30	60 secs	-	-	-	-	0.0	0.0	18.6	-	1	0
BH2	1	50	3 (2)			2.30 to 7.30	90 secs	-	-	1	-	0.0	0.0	18.3	-	1	0
BH2	1	50	3 (2)			2.30 to 7.30	120 secs	-	-	-	-	0.0	0.0	18.2	-	1	0
BH2	1	50	3 (2)			2.30 to 7.30	180 secs	-	-	-	-	0.0	0.0	18.0	-	1	0
BH2	1	50	3 (2)			2.30 to 7.30	240 secs	-	-	-	-	0.0	0.0	17.7	-	1	0
BH2	1	50	3 (2)			2.30 to 7.30	300 secs	-	-	-	-	0.0	0.0	17.2	-	1	0
BH2	1	50	3 (3)	7.30	7.66	2.30 to 7.30	16/11/2018 10:45:00	-	-	-	2.81	-	-	-	-	-	-
BH2	1	50	4	7.30		2.30 to 7.30	13/12/2018 12:37:00	1014	1014	0.0(1)	-	-	-	-	-	-	-
BH2	1	50	4			2.30 to 7.30	60 secs	-	-	0.0 _(SS)	-	-	-	-	-	-	-
BH2	1	50	4 (2)	7.30		2.30 to 7.30	13/12/2018 12:40:00	-	-	-	-	0.0	0.0	20.5	1.4	0	0
BH2	1	50	4 (2)			2.30 to 7.30	15 secs	-	-	-	-	0.2	0.2	17.3	-	1	0
BH2	1	50	4 (2)			2.30 to 7.30	30 secs	-	-	-	-	0.2	0.3	6.8	-	1	0

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STRUCTURAL SOILS The Old School Stillhouse Lane Bedminster Bristol BS3 4EB

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Former Lombard Service Station, Bristol



[Pressures] Previous During Start End Equipment Used & Remarks

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone		Borehole Pressure (mb)		Gas Flow (I/hr)	Water Depth (mbgl)	Carbon Dioxide (% / vol)	Methane (% / vol)	Oxygen (% / vol)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
BH2	1	50	4 (2)			2.30 to 7.30	60 secs	-	-	-	-	0.2	0.3	2.6	-	1	0
BH2	1	50	4 (2)			2.30 to 7.30	90 secs	-	-	-	-	0.2	0.4	2.2	-	1	0
BH2	1	50	4 (2)			2.30 to 7.30	120 secs	-	-	-	-	0.2	0.4	2.1	-	1	0
BH2	1	50	4 (2)			2.30 to 7.30	180 secs	-	-	-	-	0.2	0.4	2.1	-	1	0
BH2	1	50	4 (2)			2.30 to 7.30	240 secs	-	-	-	-	0.2	0.4	2.2	-	1	0
BH2	1	50	4 (2)			2.30 to 7.30	300 secs	-	-	-	-	0.2	0.3	2.8	-	2	0
BH2	1	50	4 (2)			2.30 to 7.30	360 secs	-	-	-	-	0.2	0.3	3.2	-	2	0
BH2	1	50	4 (2)			2.30 to 7.30	420 secs	-	-	-	-	0.2	0.4	3.4	-	2	0
BH2	1	50	4 (2)			2.30 to 7.30	480 secs	-	-	-	-	0.1	0.4	3.6	-	2	0
BH2	1	50	4 (2)			2.30 to 7.30	540 secs	-	-	-	-	0.1	0.4	3.7	-	2	0
BH2	1	50	4 (2)			2.30 to 7.30	600 secs	-	-	-	-	0.1	0.4	3.8	-	2	0
BH2	1	50	4 (3)	7.30	7.66	2.30 to 7.30	13/12/2018 12:51:00	-	-	-	2.53	-	-	-	-	-	-
	R	emarks:	Samples take	n.													
ВН3	1	50	1	7.70		1.50 to 7.70	01/11/2018 10:43:00	1006	1006	0.0(1)	-	-	-	-	-	-	-
ВН3	1	50	1			1.50 to 7.70	60 secs	-	-	0.0 _(SS)	-	-	-	-	-	-	-
ВНЗ	1	50	1 (2)	7.70		1.50 to 7.70	01/11/2018 10:45:00	-	-	-	-	0.0	0.0	20.9	2.7	0	0
ВН3	1	50	1 (2)			1.50 to 7.70	15 secs	-	-	-	-	2.6	10.6	15.2	-	2	0
ВН3	1	50	1 (2)			1.50 to 7.70	30 secs	-	-	-	-	2.6	10.6	2.7	-	2	0

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STRUCTURAL SOILS The Old School Stillhouse Lane Bedminster Bristol BS3 4EB

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Former Lombard Service Station, Bristol



[Pressures] Previous During Start End Equipment Used & Remarks

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone		Borehole Pressure (mb)		Gas Flow (I/hr)	Water Depth (mbgl)	Carbon Dioxide (% / vol)	Methane (% / vol)	Oxygen (% / vol)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
ВН3	1	50	1 (2)			1.50 to 7.70	60 secs	-	-	-	-	2.7	10.7	8.0	-	1	0
BH3	1	50	1 (2)			1.50 to 7.70	90 secs	-	-	-	-	2.7	10.7	0.7	-	1	0
BH3	1	50	1 (2)			1.50 to 7.70	120 secs	-	-	-	-	2.7	10.7	0.6	-	1	0
BH3	1	50	1 (2)			1.50 to 7.70	180 secs	-	-	-	-	2.7	10.7	0.5	-	1	0
BH3	1	50	1 (2)			1.50 to 7.70	240 secs	-	-	-	-	2.7	10.7	0.5	-	1	0
BH3	1	50	1 (2)			1.50 to 7.70	300 secs	-	-	-	-	2.7	10.8	0.4	-	1	0
BH3	1	50	1 (2)			1.50 to 7.70	360 secs	-	-	-	-	2.7	10.7	0.3	-	1	0
BH3	1	50	1 (2)			1.50 to 7.70	420 secs	-	-	-	-	2.7	10.7	0.3	-	1	0
BH3	1	50	1 (2)			1.50 to 7.70	480 secs	-	-	-	-	2.7	10.5	0.4	-	0	0
BH3	1	50	1 (2)			1.50 to 7.70	540 secs	-	-	ı	-	2.7	10.3	0.5	-	0	0
BH3	1	50	1 (2)			1.50 to 7.70	600 secs	-	-	-	-	2.7	10.0	0.5	-	0	0
BH3	1	50	1 (3)	7.70	7.94	1.50 to 7.70	01/11/2018 10:56:00	-	-	-	3.12	-	-	-	-	-	-
BH3	1	50	2	7.70		1.50 to 7.70	07/11/2018 09:09:00	990	990	0.0(1)	-	-	-	-	-	-	-
BH3	1	50	2			1.50 to 7.70	60 secs	-	-	0.0 _(SS)	-	-	-	-	-	-	-
BH3	1	50	2 (2)	7.70		1.50 to 7.70	07/11/2018 09:11:00	-	-	-	-	0.0	0.0	20.9	0.2	0	0
BH3	1	50	2 (2)			1.50 to 7.70	15 secs	-	-	-	-	4.0	11.7	11.1	-	1	0
BH3	1	50	2 (2)			1.50 to 7.70	30 secs	-	-	-	-	4.0	11.8	2.4	-	1	0
BH3	1	50	2 (2)			1.50 to 7.70	60 secs	-	-	-	-	4.1	11.9	0.6	-	1	0

 $\label{eq:Key: Let Lebesch} \textbf{Key: I = Initial, P = Peak, SS = Steady State.} \ \ \textbf{Note: LEL = Lower Explosive Limit = 5\% v/v.}$



STRUCTURAL SOILS
The Old School
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Bristol BS3 4EB

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[Pressures] Previous During Start End **Equipment Used & Remarks**

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone		Borehole Pressure (mb)		Gas Flow (I/hr)	Water Depth (mbgl)	Carbon Dioxide (% / vol)	Methane (% / vol)	Oxygen (% / vol)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
ВН3	1	50	2 (2)			1.50 to 7.70	90 secs	-	-	-	-	4.1	12.0	0.5	-	1	0
BH3	1	50	2 (2)			1.50 to 7.70	120 secs	-	-	-	-	4.1	12.1	0.4	-	1	0
ВН3	1	50	2 (2)			1.50 to 7.70	180 secs	-	-	-	-	4.1	12.2	0.2	-	0	0
BH3	1	50	2 (2)			1.50 to 7.70	240 secs	-	-	-	-	4.1	12.3	0.2	-	0	0
BH3	1	50	2 (2)			1.50 to 7.70	300 secs	-	-	-	-	4.1	12.4	0.1	-	0	0
BH3	1	50	2 (2)			1.50 to 7.70	360 secs	-	-	-	-	4.1	12.5	0.1	-	0	0
BH3	1	50	2 (2)			1.50 to 7.70	420 secs	-	-	-	-	4.1	12.5	0.0	-	0	0
BH3	1	50	2 (2)			1.50 to 7.70	480 secs	-	-	-	-	4.2	12.6	0.0	-	0	0
BH3	1	50	2 (2)			1.50 to 7.70	540 secs	-	-	-	-	4.2	12.5	0.0	-	0	0
BH3	1	50	2 (2)			1.50 to 7.70	600 secs	-	-	-	-	4.2	12.2	0.1	-	0	0
BH3	1	50	2 (3)	7.70	7.92	1.50 to 7.70	07/11/2018 09:22:00	-	-	-	3.02	-	-	-	-	-	-
BH3	1	50	3	7.70		1.50 to 7.70	16/11/2018 09:00:00	1024	1024	0.0(1)	-	-	-	-	-	-	-
BH3	1	50	3			1.50 to 7.70	60 secs	-	-	0.0 _(SS)	-	-	-	-	-	-	-
BH3	1	50	3 (2)	7.70		1.50 to 7.70	16/11/2018 09:02:00	-	-	-	-	0.0	0.0	20.9	1.7	0	0
BH3	1	50	3 (2)			1.50 to 7.70	15 secs	-	-	-	-	0.1	0.0	20.9	-	0	0
BH3	1	50	3 (2)			1.50 to 7.70	30 secs	-	-	-	-	0.1	0.0	20.9	-	0	0
BH3	1	50	3 (2)			1.50 to 7.70	60 secs	-	-	-	-	0.1	0.0	20.9	-	0	0
BH3	1	50	3 (2)			1.50 to 7.70	90 secs	-	-	-	-	0.1	0.0	20.8	-	0	0

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STRUCTURAL SOILS The Old School Stillhouse Lane Bedminster Bristol BS3 4EB

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Former Lombard Service Station, Bristol

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[Pressures] Previous During Start End **Equipment Used & Remarks**

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	Date & Time of Monitoring (elapsed time)	Borehole Pressure (mb)		Gas Flow (I/hr)	Water Depth (mbgl)	Carbon Dioxide (% / vol)	Methane (% / vol)	Oxygen (% / vol)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
ВН3	1	50	3 (2)			1.50 to 7.70	120 secs	-	-	-	-	0.1	0.0	20.8	-	0	0
BH3	1	50	3 (2)			1.50 to 7.70	180 secs	-	-	-	-	0.1	0.0	20.8	-	0	0
ВН3	1	50	3 (2)			1.50 to 7.70	240 secs	-	-	-	-	0.1	0.0	20.8	-	0	0
BH3	1	50	3 (2)			1.50 to 7.70	300 secs	-	-	-	-	0.1	0.0	20.8	-	0	0
ВН3	1	50	3 (3)	7.70	7.95	1.50 to 7.70	16/11/2018 09:08:00	-	-	-	2.97	-	-	-	-	-	-
BH3	1	50	4	7.70		1.50 to 7.70	13/12/2018 09:15:00	1013	1013	0.0(1)	-	-	-	-	-	-	-
BH3	1	50	4			1.50 to 7.70	60 secs	-	-	0.0 _(SS)	-	-	-	-	-	-	-
BH3	1	50	4 (2)	7.70		1.50 to 7.70	13/12/2018 09:18:00	-	-	-	-	0.0	0.0	20.9	0.4	0	0
ВН3	1	50	4 (2)			1.50 to 7.70	15 secs	-	-	-	-	2.7	0.0	20.0	-	0	0
BH3	1	50	4 (2)			1.50 to 7.70	30 secs	-	-	-	-	2.8	0.0	15.4	-	0	0
BH3	1	50	4 (2)			1.50 to 7.70	60 secs	-	-	-	-	2.8	0.0	13.7	-	0	0
BH3	1	50	4 (2)			1.50 to 7.70	90 secs	-	-	-	-	2.8	0.0	13.6	-	0	0
BH3	1	50	4 (2)			1.50 to 7.70	120 secs	-	-	-	-	2.8	0.0	13.5	-	0	0
BH3	1	50	4 (2)			1.50 to 7.70	180 secs	-	-	-	-	2.8	0.0	13.5	-	0	0
BH3	1	50	4 (2)			1.50 to 7.70	240 secs	-	-	-	-	2.8	0.0	13.5	-	0	0
ВНЗ	1	50	4 (2)			1.50 to 7.70	300 secs	-	-	-	-	2.8	0.0	13.4	-	0	0
BH3	1	50	4 (3)	7.70	7.93	1.50 to 7.70	13/12/2018 09:24:00	-	-	-	2.72	-	-	-	-	-	-
	Remarks: Samples taken.														·		

Key: I = Initial, P = Peak, SS = Steady State. Note: LEL = Lower Explosive Limit = 5% v/v.



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[Pressures] Previous During Start End **Equipment Used & Remarks**

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	Date & Time of Monitoring (elapsed time)	Borehole Pressure (mb)		Gas Flow (I/hr)	Water Depth (mbgl)	Carbon Dioxide (% / vol)	Methane (% / vol)	Oxygen (% / vol)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
WS1	1	40	1	6.00		1.50 to 6.00	01/11/2018 13:21:00	1007	1007	0.0(1)	-	-	-	-	-	-	-
WS1	1	40	1			1.50 to 6.00	60 secs	-	-	0.0 _(SS)	-	-	-	-	-	-	-
WS1	1	40	1 (2)	6.00		1.50 to 6.00	01/11/2018 13:23:00	-	-	-	-	0.0	0.0	20.9	0.5	0	0
WS1	1	40	1 (2)			1.50 to 6.00	15 secs	-	-	-	-	0.6	0.0	20.8	-	0	0
WS1	1	40	1 (2)			1.50 to 6.00	30 secs	-	-	-	-	0.6	0.0	20.5	-	0	0
WS1	1	40	1 (2)			1.50 to 6.00	60 secs	-	-	-	-	0.7	0.0	20.5	-	0	0
WS1	1	40	1 (2)			1.50 to 6.00	90 secs	-	-	-	-	0.7	0.0	20.5	-	0	0
WS1	1	40	1 (2)			1.50 to 6.00	120 secs	-	-	-	-	0.7	0.0	20.5	-	0	0
WS1	1	40	1 (2)			1.50 to 6.00	180 secs	-	-	-	-	0.7	0.0	20.5	-	0	0
WS1	1	40	1 (2)			1.50 to 6.00	240 secs	-	-	-	-	0.7	0.0	20.5	-	0	0
WS1	1	40	1 (2)			1.50 to 6.00	300 secs	-	-	-	-	0.7	0.0	20.5	-	0	0
WS1	1	40	1 (3)	6.00	5.32	1.50 to 6.00	01/11/2018 13:29:00	-	-	-	1.92	-	-	-	-	-	-
WS1	1	40	2	6.00		1.50 to 6.00	07/11/2018 11:12:00	990	990	0.0(1)	-	-	1	-	-	-	-
WS1	1	40	2			1.50 to 6.00	60 secs	-	-	0.0 _(SS)	-	-	ı	-	-	-	-
WS1	1	40	2 (2)	6.00		1.50 to 6.00	07/11/2018 11:14:00	-	-	-	-	0.0	0.0	20.9	0.9	0	0
WS1	1	40	2 (2)			1.50 to 6.00	15 secs	-	-	-	-	0.4	0.0	20.8	-	0	0
WS1	1	40	2 (2)			1.50 to 6.00	30 secs	-	-	-	-	0.4	0.0	20.7	-	0	0
WS1	1	40	2 (2)			1.50 to 6.00	60 secs	-	-	-	-	0.4	0.0	20.7	-	0	0

Key: I = Initial, P = Peak, SS = Steady State. Note: LEL = Lower Explosive Limit = 5% v/v.



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Former Lombard Service Station, Bristol

[Pressures] Previous During Start End **Equipment Used & Remarks**

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone		Borehole Pressure (mb)		Gas Flow (I/hr)	Water Depth (mbgl)	Carbon Dioxide (% / vol)	Methane (% / vol)	Oxygen (% / vol)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
WS1	1	40	2 (2)			1.50 to 6.00	90 secs	-	-	-	-	0.4	0.0	20.7	-	0	0
WS1	1	40	2 (2)			1.50 to 6.00	120 secs	-	-	-	-	0.4	0.0	20.6	-	0	0
WS1	1	40	2 (2)			1.50 to 6.00	180 secs	-	-	-	-	0.4	0.0	20.6	-	0	0
WS1	1	40	2 (2)			1.50 to 6.00	240 secs	-	-	-	-	0.4	0.0	20.7	-	0	0
WS1	1	40	2 (2)			1.50 to 6.00	300 secs	-	-	-	-	0.4	0.0	20.7	-	0	0
WS1	1	40	2 (3)	6.00	5.31	1.50 to 6.00	07/11/2018 11:20:00	-	-	-	2.32	-	-	-	-	-	-
WS1	1	40	3	6.00		1.50 to 6.00	16/11/2018 09:22:00	1024	1024	0.0(1)	-	-	1	-	-	-	-
WS1	1	40	3			1.50 to 6.00	60 secs	-	-	0.0 _(SS)	-	-	ı	-	-	-	-
WS1	1	40	3 (2)	6.00		1.50 to 6.00	16/11/2018 09:24:00	-	-	-	-	0.0	0.0	20.9	0.9	0	0
WS1	1	40	3 (2)		-	1.50 to 6.00	15 secs	-	-	-	-	0.2	0.0	20.9	-	0	0
WS1	1	40	3 (2)			1.50 to 6.00	30 secs	-	-	-	-	0.3	0.0	20.8	-	0	0
WS1	1	40	3 (2)		-	1.50 to 6.00	60 secs	-	-	-	-	0.3	0.0	20.7	-	0	0
WS1	1	40	3 (2)			1.50 to 6.00	90 secs	-	-	-	-	0.3	0.0	20.7	-	0	0
WS1	1	40	3 (2)			1.50 to 6.00	120 secs	-	-	-	-	0.3	0.0	20.7	-	0	0
WS1	1	40	3 (2)			1.50 to 6.00	180 secs	-	-	-	-	0.3	0.0	20.7	-	0	0
WS1	1	40	3 (2)			1.50 to 6.00	240 secs	-	-	-	-	0.3	0.0	20.8	-	0	0
WS1	1	40	3 (2)			1.50 to 6.00	300 secs	-	-	-	-	0.3	0.0	20.8	-	0	0
WS1	1	40	3 (3)	6.00	5.31	1.50 to 6.00	16/11/2018 09:30:00	-	-	-	1.99	-	-	-	-	-	-

Key: I = Initial, P = Peak, SS = Steady State. Note: LEL = Lower Explosive Limit = 5% v/v.



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[Pressures] Previous During Start End Equipment Used & Remarks

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone		Borehole Pressure (mb)		Gas Flow (I/hr)	Water Depth (mbgl)	Carbon Dioxide (% / vol)	Methane (% / vol)	Oxygen (% / vol)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
WS1	1	40	4	6.00		1.50 to 6.00	13/12/2018 10:54:00	1014	1014	0.0(1)	-	-	-	-	-	-	-
WS1	1	40	4			1.50 to 6.00	60 secs	-	-	0.0 _(SS)	-	-	-	-	-	-	-
WS1	1	40	4 (2)	6.00		1.50 to 6.00	13/12/2018 10:57:00	-	-	-	-	0.0	0.0	20.9	0.2	0	0
WS1	1	40	4 (2)			1.50 to 6.00	15 secs	-	-	-	-	0.2	0.0	20.8	-	0	0
WS1	1	40	4 (2)			1.50 to 6.00	30 secs	-	-	-	-	0.3	0.0	20.8	-	0	0
WS1	1	40	4 (2)			1.50 to 6.00	60 secs	-	-	-	-	0.3	0.0	20.7	-	0	0
WS1	1	40	4 (2)			1.50 to 6.00	90 secs	-	-	-	-	0.3	0.0	20.7	-	0	0
WS1	1	40	4 (2)			1.50 to 6.00	120 secs	-	-	-	-	0.3	0.0	20.7	-	0	0
WS1	1	40	4 (2)			1.50 to 6.00	180 secs	-	-	-	-	0.3	0.0	20.7	-	0	0
WS1	1	40	4 (2)			1.50 to 6.00	240 secs	-	-	-	-	0.3	0.0	20.7	-	0	0
WS1	1	40	4 (2)			1.50 to 6.00	300 secs	-	-	-	-	0.3	0.0	20.6	-	0	0
WS1	1	40	4 (3)	6.00	5.32	1.50 to 6.00	13/12/2018 11:03:00	-	-	-	1.74	-	-	-	-	-	-
	R	emarks:	Samples take	n.													
WS3	1	40	1	4.00		0.50 to 4.00	01/11/2018 11:00:00	1006	1006	0.0(1)	-	-	-	-	-	-	-
WS3	1	40	1			0.50 to 4.00	60 secs	-	-	0.0 _(SS)	ı	-	-	-	-	-	-
WS3	1	40	1 (2)	4.00		0.50 to 4.00	01/11/2018 11:02:00	-	-	-	-	0.0	0.0	20.9	0.2	0	0
WS3	1	40	1 (2)			0.50 to 4.00	15 secs	-	-	-	-	0.1	0.0	20.9		0	0
WS3	1	40	1 (2)			0.50 to 4.00	30 secs	-	-	-	1	0.1	0.0	20.9	-	0	0

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[Pressures] Previous During Start End **Equipment Used & Remarks**

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone		Borehole Pressure (mb)		Gas Flow (I/hr)	Water Depth (mbgl)	Carbon Dioxide (% / vol)	Methane (% / vol)	Oxygen (% / vol)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
WS3	1	40	1 (2)			0.50 to 4.00	60 secs	-	-	-	-	0.1	0.0	20.9	-	0	0
WS3	1	40	1 (2)			0.50 to 4.00	90 secs	-	-	-	-	0.1	0.0	20.9	-	0	0
WS3	1	40	1 (2)			0.50 to 4.00	120 secs	-	-	-	-	0.1	0.0	20.9	-	0	0
WS3	1	40	1 (2)			0.50 to 4.00	180 secs	-	-	-	-	0.1	0.0	20.9	-	0	0
WS3	1	40	1 (2)			0.50 to 4.00	240 secs	-	-	-	-	0.1	0.0	20.9	-	0	0
WS3	1	40	1 (2)			0.50 to 4.00	300 secs	-	-	-	-	0.1	0.0	20.9	-	0	0
WS3	1	40	1 (3)	4.00	4.04	0.50 to 4.00	01/11/2018 11:08:00	-	-	-	2.06	-	-	-	-	-	-
WS3	1	40	2	4.00		0.50 to 4.00	07/11/2018 10:43:00	990	990	0.0(1)	-	-	-	-	-	-	-
WS3	1	40	2			0.50 to 4.00	60 secs	-	-	0.0 _(SS)	-	-	-	-	-	-	-
WS3	1	40	2 (2)	4.00		0.50 to 4.00	07/11/2018 10:45:00	-	-	-	-	0.6	0.0	20.9	0.3	0	0
WS3	1	40	2 (2)			0.50 to 4.00	15 secs	-	-	-	-	0.7	0.0	20.7	-	0	0
WS3	1	40	2 (2)			0.50 to 4.00	30 secs	-	-	-	-	0.3	0.0	20.5	-	0	0
WS3	1	40	2 (2)			0.50 to 4.00	60 secs	-	-	-	-	0.3	0.0	20.4	-	0	0
WS3	1	40	2 (2)			0.50 to 4.00	90 secs	-	-	-	-	0.3	0.0	20.3	-	0	0
WS3	1	40	2 (2)			0.50 to 4.00	120 secs	-	-	-	-	0.4	0.0	20.2	-	0	0
WS3	1	40	2 (2)			0.50 to 4.00	180 secs	-	-	-	-	0.4	0.0	20.2	-	0	0
WS3	1	40	2 (2)			0.50 to 4.00	240 secs	-	-	-	-	0.4	0.0	20.2	-	0	0
WS3	1	40	2 (2)			0.50 to 4.00	300 secs	-	-	-	-	0.4	0.0	20.1	-	0	0

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[Pressures] Previous During Start End Equipment Used & Remarks

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone		Borehole Pressure (mb)		Gas Flow (I/hr)	Water Depth (mbgl)	Carbon Dioxide (% / vol)	Methane (% / vol)	Oxygen (% / vol)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
WS3	1	40	2 (3)	4.00	4.02	0.50 to 4.00	07/11/2018 10:51:00	-	-	-	2.63	-	-	-	-	-	-
WS3	1	40	3	4.00		0.50 to 4.00	16/11/2018 09:59:00	1025	1025	0.0(1)	-	-	-	-	-	-	-
WS3	1	40	3			0.50 to 4.00	60 secs	-	-	0.0 _(SS)	-	-	-	-	-	-	-
WS3	1	40	3 (2)	4.00		0.50 to 4.00	16/11/2018 10:01:00	-	-	-	-	0.0	0.0	20.9	0.3	0	0
WS3	1	40	3 (2)			0.50 to 4.00	15 secs	-	-	-	-	0.1	0.0	20.9	-	0	0
WS3	1	40	3 (2)			0.50 to 4.00	30 secs	-	-	-	-	0.1	0.0	20.8	-	0	0
WS3	1	40	3 (2)			0.50 to 4.00	60 secs	-	-	-	-	0.1	0.0	20.8	-	0	0
WS3	1	40	3 (2)			0.50 to 4.00	90 secs	-	-	-	-	0.2	0.0	20.7	-	0	0
WS3	1	40	3 (2)			0.50 to 4.00	120 secs	-	-	-	-	0.2	0.0	20.7	-	0	0
WS3	1	40	3 (2)			0.50 to 4.00	180 secs	-	-	-	-	0.2	0.0	20.7	-	0	0
WS3	1	40	3 (2)			0.50 to 4.00	240 secs	-	-	-	-	0.2	0.0	20.7	-	0	0
WS3	1	40	3 (2)			0.50 to 4.00	300 secs	-	-	-	-	0.2	0.0	20.7	-	0	0
WS3	1	40	3 (3)	4.00	4.05	0.50 to 4.00	16/11/2018 10:07:00	-	-	-	1.50	-	-	-	-	-	-
WS3	1	40	4	4.00		0.50 to 4.00	13/12/2018 09:37:00	1014	1014	0.0(1)	-	-	-	-	-	-	-
WS3	1	40	4			0.50 to 4.00	120 secs	-	-	0.0 _(SS)	-	-	-	-	-	-	-
WS3	1	40	4 (2)	4.00		0.50 to 4.00	13/12/2018 09:41:00	-	-	-	-	0.0	0.0	20.9	0.2	0	0
WS3	1	40	4 (2)			0.50 to 4.00	15 secs	-	-	-	-	0.1	0.0	20.9	-	0	0
WS3	1	40	4 (2)			0.50 to 4.00	30 secs	-	-	-	-	0.1	0.0	20.8	-	0	0

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[Pressures] Previous During Start End Equipment Used & Remarks

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	Date & Time of Monitoring (elapsed time)	Borehole Pressure (mb)		Gas Flow (I/hr)	Water Depth (mbgl)	Carbon Dioxide (% / vol)	Methane (% / vol)	Oxygen (% / vol)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
WS3	1	40	4 (2)			0.50 to 4.00	60 secs	-	-	-	-	0.1	0.0	20.8	-	0	0
WS3	1	40	4 (2)			0.50 to 4.00	90 secs	-	-	-	-	0.1	0.0	20.8	-	0	0
WS3	1	40	4 (2)			0.50 to 4.00	120 secs	-	-	-	-	0.1	0.0	20.8	-	0	0
WS3	1	40	4 (2)			0.50 to 4.00	180 secs	-	-	-	-	0.1	0.0	20.8	-	0	0
WS3	1	40	4 (2)			0.50 to 4.00	240 secs	-	-	-	-	0.1	0.0	20.9	-	0	0
WS3	1	40	4 (2)			0.50 to 4.00	300 secs	-	-	-	-	0.1	0.0	20.9	-	0	0
WS3	1	40	4 (3)	4.00	4.05	0.50 to 4.00	13/12/2018 09:47:00	-	-	-	1.34	-	-	-	-	-	-
	R	emarks:	Samples take	n.													
WS4	1	40	1	2.00		0.50 to 2.00	01/11/2018 10:25:00	1006	1006	0.0(1)	-	-	-	-	-	-	-
WS4	1	40	1			0.50 to 2.00	60 secs	-	-	0.0 _(SS)	-	-	-	-	-	-	-
WS4	1	40	1 (2)	2.00		0.50 to 2.00	01/11/2018 10:27:00	-	-	-	-	0.0	0.0	20.9	1.7	0	0
WS4	1	40	1 (2)			0.50 to 2.00	15 secs	-	-	-	-	0.6	0.0	20.6	-	1	0
WS4	1	40	1 (2)			0.50 to 2.00	30 secs	-	-	-	-	0.6	0.0	19.8	-	0	0
WS4	1	40	1 (2)			0.50 to 2.00	60 secs	-	-	1	-	0.6	0.0	19.5	-	0	0
WS4	1	40	1 (2)			0.50 to 2.00	90 secs	-	-	-	-	0.6	0.0	19.4	-	0	0
WS4	1	40	1 (2)			0.50 to 2.00	120 secs	-	-	-	-	0.6	0.0	19.4	-	0	0
WS4	1	40	1 (2)			0.50 to 2.00	180 secs	-	-	1	-	0.6	0.0	19.4	-	0	0
WS4	1	40	1 (2)			0.50 to 2.00	240 secs	-	-	-	-	0.6	0.0	19.4	-	0	0

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Key: I = Initial, P = Peak, SS = Steady State. Note: LEL = Lower Explosive Limit = 5% v/v.



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[Pressures] Previous During Start End **Equipment Used & Remarks**

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	Date & Time of Monitoring (elapsed time)	Borehole Pressure (mb)		Gas Flow (I/hr)	Water Depth (mbgl)	Carbon Dioxide (% / vol)	Methane (% / vol)	Oxygen (% / vol)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
WS4	1	40	1 (2)			0.50 to 2.00	300 secs	-	-	-	-	0.5	0.0	19.4	-	0	0
WS4	1	40	1 (2)			0.50 to 2.00	360 secs	-	-	-	-	0.5	0.0	19.4	-	0	0
WS4	1	40	1 (2)			0.50 to 2.00	420 secs	-	-	-	-	0.5	0.0	19.4	-	0	0
WS4	1	40	1 (3)	2.00	1.60	0.50 to 2.00	01/11/2018 10:35:00	-	-	-	1.33	-	-	-	-	-	-
WS4	1	40	2	2.00		0.50 to 2.00	07/11/2018 08:55:00	990	990	0.0(1)	-	-	-	-	-	-	-
WS4	1	40	2			0.50 to 2.00	60 secs	-	-	0.0 _(SS)	-	-	-	-	-	-	-
WS4	1	40	2 (2)	2.00		0.50 to 2.00	07/11/2018 08:57:00	-	-	-	-	0.0	0.0	20.9	1.5	0	0
WS4	1	40	2 (2)			0.50 to 2.00	15 secs	-	-	-	-	0.2	0.0	20.6	-	0	0
WS4	1	40	2 (2)			0.50 to 2.00	30 secs	-	-	-	-	0.2	0.0	20.1	-	0	0
WS4	1	40	2 (2)			0.50 to 2.00	60 secs	-	-	-	-	0.2	0.0	19.8	-	0	0
WS4	1	40	2 (2)			0.50 to 2.00	90 secs	-	-	-	-	0.2	0.0	19.7	-	0	0
WS4	1	40	2 (2)			0.50 to 2.00	120 secs	-	-	-	-	0.2	0.0	19.7	-	0	0
WS4	1	40	2 (2)			0.50 to 2.00	180 secs	-	-	-	-	0.2	0.0	19.8	-	0	0
WS4	1	40	2 (2)			0.50 to 2.00	240 secs	-	-	-	-	0.2	0.0	19.8	-	0	0
WS4	1	40	2 (2)			0.50 to 2.00	300 secs	-	-	-	-	0.2	0.0	19.8	-	0	0
WS4	1	40	2 (3)	2.00	1.60	0.50 to 2.00	07/11/2018 09:03:00	-	-	-	0.91	-	-	-	-	-	-
WS4	1	40	3	2.00		0.50 to 2.00	16/11/2018 09:11:00	1024	1024	0.0(1)	-	-	-	-	-	-	-
WS4	1	40	3			0.50 to 2.00	60 secs	-	-	0.0 _(SS)	-	-	-	-	-	-	-

Key: I = Initial, P = Peak, SS = Steady State. Note: LEL = Lower Explosive Limit = 5% v/v.



STRUCTURAL SOILS The Old School Stillhouse Lane Bedminster Bristol BS3 4EB

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J. Eumi
Contract:

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Checked By Date 17/01/19

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Date 17/01/19

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[Pressures] Previous During Start End **Equipment Used & Remarks**

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	Date & Time of Monitoring (elapsed time)	Borehole Pressure (mb)		Gas Flow (I/hr)	Water Depth (mbgl)	Carbon Dioxide (% / vol)	Methane (% / vol)	Oxygen (% / vol)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
WS4	1	40	3 (2)	2.00		0.50 to 2.00	16/11/2018 09:13:00	-	-	-	-	0.0	0.0	20.9	1.4	0	0
WS4	1	40	3 (2)			0.50 to 2.00	15 secs	-	-	-	-	0.2	0.0	20.6	-	0	0
WS4	1	40	3 (2)			0.50 to 2.00	30 secs	-	-	-	-	0.3	0.0	19.6	-	0	0
WS4	1	40	3 (2)			0.50 to 2.00	60 secs	-	-	-	-	0.3	0.0	19.4	-	0	0
WS4	1	40	3 (2)			0.50 to 2.00	90 secs	-	-	-	-	0.3	0.0	19.3	-	0	0
WS4	1	40	3 (2)			0.50 to 2.00	120 secs	-	-	-	-	0.3	0.0	19.3	-	0	0
WS4	1	40	3 (2)			0.50 to 2.00	180 secs	-	-	-	-	0.3	0.0	19.3	-	0	0
WS4	1	40	3 (2)			0.50 to 2.00	240 secs	-	-	-	-	0.3	0.0	19.3	-	0	0
WS4	1	40	3 (2)			0.50 to 2.00	300 secs	-	-	-	-	0.3	0.0	19.3	-	0	0
WS4	1	40	3 (3)	2.00	1.60	0.50 to 2.00	16/11/2018 09:19:00	-	-	-	1.28	-	-	-	-	-	-
WS4	1	40	4	2.00		0.50 to 2.00	13/12/2018 10:12:00	1014	1014	0.0(1)	-	-	-	-	-	-	-
WS4	1	40	4			0.50 to 2.00	60 secs	-	-	0.0 _(SS)	-	-	-	-	-	-	-
WS4	1	40	4 (2)	2.00		0.50 to 2.00	13/12/2018 10:18:00	-	-	-	-	0.0	0.0	20.9	0.7	0	0
WS4	1	40	4 (2)			0.50 to 2.00	15 secs	-	1	-	-	1.6	0.0	20.0	-	0	0
WS4	1	40	4 (2)			0.50 to 2.00	30 secs	-	-	-	-	1.6	0.0	16.6	-	0	0
WS4	1	40	4 (2)			0.50 to 2.00	60 secs	-	-	-	-	1.7	0.0	15.7	-	0	0
WS4	1	40	4 (2)			0.50 to 2.00	90 secs	-	-	-	-	1.7	0.0	15.6	-	0	0
WS4	1	40	4 (2)			0.50 to 2.00	120 secs	-	-	-	-	1.7	0.0	15.6	-	0	0

Key: I = Initial, P = Peak, SS = Steady State. Note: LEL = Lower Explosive Limit = 5% v/v.



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[Pressures] Previous During Start End Equipment Used & Remarks

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone		Borehole Pressure (mb)		Gas Flow (I/hr)	Water Depth (mbgl)	Carbon Dioxide (% / vol)	Methane (% / vol)		PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
WS4	1	40	4 (2)			0.50 to 2.00	180 secs	-	-	-	-	1.6	0.0	15.5	-	0	0
WS4	1	40	4 (2)			0.50 to 2.00	240 secs	-	-	-	-	1.6	0.0	15.5	-	0	0
WS4	1	40	4 (2)			0.50 to 2.00	300 secs	-	-	-	-	1.6	0.0	15.5	-	0	0
WS4	1	40	4 (3)	2.00	1.61	0.50 to 2.00	13/12/2018 10:24:00	-	-	-	1.25	-	-	-	-	-	-
	R	emarks:	Samples take	n.													

 $\label{eq:Key: Let Lebesch} \textbf{Key: I = Initial, P = Peak, SS = Steady State.} \ \ \textbf{Note: LEL = Lower Explosive Limit = 5\% v/v.}$



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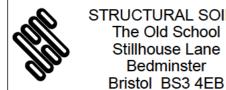
11

Air Temperature (°C) Weather **Ground Conditions** Wind Conditions Equipment Used & Remarks

Light

Exploratory Position ID	Pipe Ref	Pipe Diameter	Monitoring Round / Test Number	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	Date & Time of Monitoring	Water Depth (mbgl)	pН	Redox (mV)	Conduc- tivity (uS/cm)	Temp- erature (°C)	Dissolved Oxygen (mg/l)	Remarks
BH1	1	50	2/1	7.70	7.74	2.00 to 7.70	07/11/2018 12:04	2.37	7.85	128	1525	13.8	1.7	
BH1	1	50	2/1				07/11/2018 12:07	2.37	7.76	113	1511	14.0	0.0	
BH1	1	50	2/1				07/11/2018 12:10	2.37	7.75	112	1506	14.0	0.0	
BH1	1	50	2/1				07/11/2018 12:13	2.37	7.74	104	1501	14.1	0.0	
BH1	1	50	2/1				07/11/2018 12:16	2.37	7.73	100	1492	14.2	0.0	
BH2	1	50	2/1	7.30	7.63	2.30 to 7.30	07/11/2018 12:57	3.00	7.67	-31	1137	13.2	0.9	
BH2	1	50	2/1				07/11/2018 13:00	3.00	7.49	-42	1120	13.4	0.0	
BH2	1	50	2/1				07/11/2018 13:03	3.00	7.48	-47	1118	13.4	0.0	
BH2	1	50	2/1				07/11/2018 13:06	3.00	7.41	-47	1116	13.4	0.0	
BH2	1	50	2/1				07/11/2018 13:09	3.00	7.37	-55	1112	13.5	0.0	
BH3	1	50	2/1	7.70	7.93	1.50 to 7.70	07/11/2018 10:20	3.03	6.88	155	1276	14.2	0.1	
BH3	1	50	2/1				07/11/2018 10:23	3.03	6.90	155	1252	14.2	0.0	
BH3	1	50	2/1				07/11/2018 10:26	3.03	6.91	156	1244	14.3	0.0	
BH3	1	50	2/1				07/11/2018 10:29	3.03	6.92	150	1272	14.3	0.0	
BH3	1	50	2/1				07/11/2018 10:32	3.03	6.95	145	1268	14.3	0.0	

Key: NDA denotes 'no data available'.



Round 2

Rain

Wet

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Exploratory Position ID	Pipe ref	Pipe Diameter	Monitoring Round / Test Number	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	Date & Time of Monitoring	Water Depth (mbgl)	pН	Redox (mV)	Conduc- tivity (uS/cm)	Temp- erature (°C)	Dissolved Oxygen (mg/l)	Remarks
WS1	1	40	2/1	6.00	5.31	1.50 to 6.00	07/11/2018 12:24	2.32	7.84	328	1459	12.6	1.2	General Remarks: Slightly cloudy, no odour.
WS1	1	40	2/1				07/11/2018 12:25	2.32	7.76	333	1054	13.2	1.3	
WS1	1	40	2/1				07/11/2018 13:05	2.32	7.30	329	2023	13.2	0.6	
WS1	1	40	2/1				07/11/2018 13:08	2.32	7.30	303	1986	13.9	0.3	
WS1	1	40	2/1				07/11/2018 13:11	2.32	7.28	283	1922	14.2	0.5	
WS1	1	40	2/1				07/11/2018 13:14	2.32	7.23	273	1947	14.2	0.3	
WS3	1	40	2/1	4.00	4.02	0.50 to 4.00	07/11/2018 11:20	2.63	7.22	149	1978	13.5	1.1	
WS3	1	40	2/1				07/11/2018 11:23	2.63	7.19	161	1671	14.4	0.5	
WS3	1	40	2/1				07/11/2018 11:26	2.63	7.17	172	1641	14.5	0.4	
WS3	1	40	2/1				07/11/2018 11:29	2.63	7.11	161	1783	14.3	0.5	
WS3	1	40	2/1				07/11/2018 11:32	2.63	7.15	157	1622	14.1	0.7	
WS4	1	40	2/1	2.00	1.60	0.50 to 2.00	07/11/2018 09:43	0.91	8.04	336	515	12.7	6.7	General Remarks: Cloudy appearance, no odour.
WS4	1	40	2/1				07/11/2018 09:46	0.91	8.24	326	380	12.8	7.0	
WS4	1	40	2/1				07/11/2018 09:49	0.91	8.29	321	380	12.8	7.2	
WS4	1	40	2/1				07/11/2018 09:52	0.91	8.32	319	378	12.8	7.2	
WS4	1	40	2/1				07/11/2018 09:55	0.91	8.34	318	378	12.7	7.1	
WS4	1	40	2/1				07/11/2018 09:58	0.91	8.38	316	374	12.7	7.1	

Key: NDA denotes 'no data available'.



STRUCTURAL SOILS The Old School Stillhouse Lane Bedminster Bristol BS3 4EB

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APPENDIX F - CALIBRATION CERTIFICATES

- (i) SPT Calibration Records
- (ii) Gas Analyser Calibration Records
- (iii) Photo ionisation Detector (PID) Calibration Records

SPT Calibration Report



Hammer Energy Measurement Report

Type of Hammer SPT HAMMER
Client STRUCTURAL SOILS

Test No EQU2108

 Test Depth (m)
 8.70

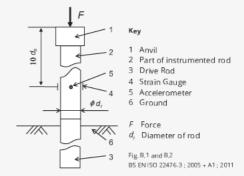
 Mass of hammer
 m = 63.5 kg

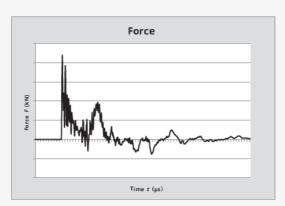
 Falling height
 h = 0.76 m

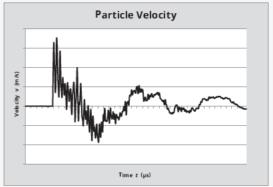
 $E_{\text{theor}} =$ $m \times g \times h = 473 \text{J}$

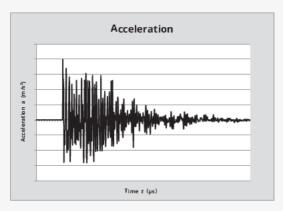
Characteristics of the instrumented rod

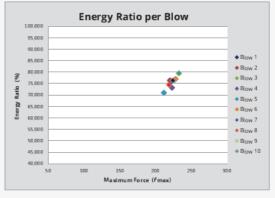
Diameter $d_r = 0.052 \text{ m}$ Length of instrumented rod0.558 mAreaA = 11.61 cm^2 Modulus $E_o = 206843 \text{ MPa}$

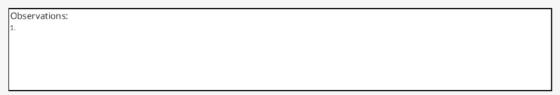












 $E_{\text{meas}} = 0.356 \text{ kN-m}$ $E_{\text{theor}} = 0.473 \text{ kN-m}$ $E_{\text{nergy Ratio}} = \frac{E_{\text{meas}}}{E_{\text{theor}}} = \frac{75.30\%}{E_{\text{theor}}}$

Equipe SPT Analyzer Operators: AF

Prepared by: Checked by: Date: 05/07/2018

SPT Calibration Report



www.equipegroup.com

Hammer Energy Measurement Report

Type of Hammer

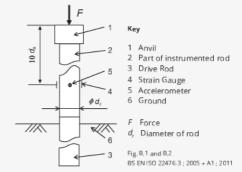
Client STRUCTURAL SOILS

Test No EQU2028

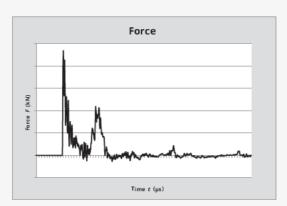
Test Depth (m) 8.70 Mass of hammer m = 63.5 kgFalling height h = 0.76 m $m \times g \times h = 473$

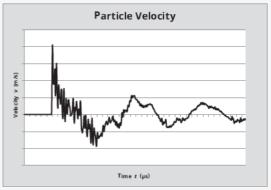
Characteristics of the instrumented rod

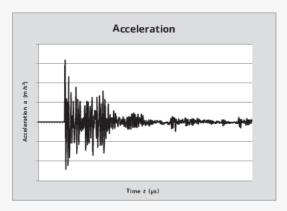
Length of instrumented rod 0.558 m Area $A = 11.61 \text{ cm}^2$ Modulus $E_a = 206843 \text{ MPa}$

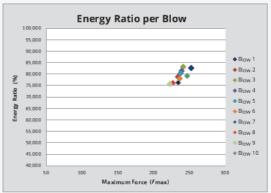


DATE OF TEST **VALID UNTIL HAMMER ID** 23/01/2018 23/01/2019 DT15187











E meas = 0.376 kN-m Energy Ratio = (E_r) 79.44% $E_{\text{theor}} =$ 0.473 kN-m

Equipe SPT Analyzer Operators:

Prepared by: Checked by: 23/01/2018 Date:

SERVICE REPORT



ISSUED BY: GEOTECHNICAL INSTRUMENTS (UK) LTD

Customer Name: Structural Soils Limited

Date of Service: GA5000 28-Aug-2018 Model:

Service Engineer: Mustafa Part Number: GA5KB0B0-101 Ghalaboun

Serial Number: G503249 Calibration Engineer: Suk Balrey

Verification / Approved By: Jeremy Dunn Signature:

Reason for Return (inc. Customer Comments):

Returned for full service and calibration

Service Comments/Feedback:

This instrument was tested against known certified gas values and the user calibration was seen to be worse than the factory calibration for the following channels: CO2. Common reasons for this are an out of date or poor user calibration. Regular user calibrations carried out in accordance with our operating manual will help to optimise performance. For further information on user calibration please visit the FAQ section of our website.

Thank you for returning your gas analyser to the Geotech Service Centre for full service and calibration. We are pleased to inform you that the analyser was received and fully assessed by one of our experienced Service Engineers and no significant faults or issues were observed during the assessment. Our extensive service was carried out, and any necessary components replaced. The analyser has successfully passed all of our rigorous testing and quality checks and has been calibrated using our bespoke, state of the art calibration facility. For further information about how to get the best use from your instrument please visit our YouTube channel http://www.youtube.com/GeotechTV and on our Website http://www.geotechuk.com

The O2 electrochemical sensor has been replaced due to it being over 3 years old in accordance with the manufacturer's recommendations, and also as a proactive measure based on our experience of the typical lifetime of this type of sensor.

We have replaced the battery because it is over 2 years old. This is in accordance to the battery cell manufacturer's recommendation.

If you require any further assistance with your instrument please email our Technical Support Team at technical@geotech.co.uk or call us on +44 1926 338111 (Monday to Thursday 08.30 - 17.00 & Friday 08.30 - 15.30) UK time zone.

Next Service Due: 21-Feb-2019

17025

Our ISO accreditation for our customised auto-calibration facilities

Number of days we aim to complete your service within

Number of checks instruments are subject to when serviced

from which we service instruments/ accessories each year

7,384

Number of calibrations completed in last 12 months

of service. instruments we process each month

Cost (in £) of fully insured analyser collection for our UK customers

SERVICE REPORT



ISSUED BY: GEOTECHNICAL INSTRUMENTS (UK) LTD

17025

Our ISO accreditation for our customised auto-calibration facilities

Number of days we aim to complete your service within

50

Number of checks instruments are subject to when serviced

65

Number of countries from which we service instruments/ accessories each year

7,384

Number of calibrations completed in last 12 months 340

Minimum number of service instruments we process each month

25

Cost (in £) of fully insured analyser collection for our UK customers

CERTIFICATION OF CALIBRATION

Date Of Calibration: 21-Aug-2018







Certificate Number: G503249 1/21213

ISSUED BY: GEOTECHNICAL INSTRUMENTS (UK) LTD

Customer: Structural Soils Limited

Spring Lodge 172 Chester Road Helsby

Frodsham Cheshire WA6 OAR UNITED KINGDOM

Description: Gas Analyser

Model: GA5000 Serial Number: G503249

UKAS Accredited results:

Results after adjustment:

Methane (CH₄)		
Certified Gas (%)	Instrument Reading (%)	Uncertainty (%)
5.0	5.0	0.41
15.0	15.0	0.64
50.0	49.1	0.94

Carbon Dioxide (CO₂)		
Certified Gas (%)	Instrument Reading (%)	Uncertainty (%)
5.0	4.9	0.43
15.0	14.9	0.70
50.0	50.0	1.1

	Oxygen (O ₂)	
Certified Gas (%)	Instrument Reading (%)	Uncertainty (%)
21.0	21.1	0.31

The inwards assessment was carried out 02-Aug-2018.

The maximum adjustment is larger than the inwards assessment uncertainty.

Inwards assessment data is available if requested.

All concentrations are molar.

CH₄, CO₂ readings recorded at : 33.2 °C ± 2.5 °C

O2 readings recorded at : 24.2 °C ± 2.5 °C

Barometric Pressure: 1011 mbar ± 4 mbar

Method of Test: The analyser is calibrated in a temperature controlled chamber using a series of reference gases,

in compliance with procedure LP004.

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to the SI system of units and/or to units of measurement realised at the National Physical Laboratory or other recognised national metrology institutes. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

Calibration Instance:99 IGC Instance:99

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CERTIFICATION **OF CALIBRATION**







Certificate Number: G503249_1/21213

Date Of Calibration: 21-Aug-2018

ISSUED BY: GEOTECHNICAL INSTRUMENTS (UK) LTD

The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95%. The uncertainty evaluation has been carried out in accordance with UKAS requirements.

Calibrations marked 'Non-UKAS Accredited results' on this certificate have been included for completeness.

Non-UKAS accredited results after adjustment:

Baron	neter (mbar)
Reference	Instrument Reading
1011	1010

	Additional Gas Cells	
Gas	Certified Gas (ppm)	Instrument Reading (ppm)
со	507	507
H₂S	50.9	51

Internal Flow	
Applied (I/hr)	Instrument Reading (I/hr)
5.0	5.0
10.0	10.0

Date of Issue: 28-Aug-2018

Approved by Signatory

Jeremy Duna

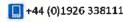
Laboratory Inspection

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to the SI system of units and/or to units of measurement realised at the National Physical Laboratory or other recognised national metrology institutes. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

Calibration instance:99 IGC Instance:99

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Date of Calibration: - 15th June 2018

Calibrated by: - J Boyce

Customer: - Structural Soils

Description: - Tiger

Manufacturer: - ION Science Ltd.

Type Number: - N/A

Serial Number: - T-107655

BARO2

Certificate Number: - 242812

Signed: - Shell

Service Due date: - June 2019

This instrument has been factory calibrated to fully documented procedures in accordance with our ISO 9001:2008 Quality Management System.

Measurement standards are derived from volumetric and time sources which have been calibrated at an accredited laboratory traceable to National or International standards. The following list indicates the serial numbers of equipment used during the calibration procedure.

Drittoz	C3001/411335		
¹ Gas mixtures prepa	red using equipment trace	able to N.P.L. standards again	nst Suppliers Certificate No

The instrument has been calibrated at a temperature of 19.9°C \pm 0.25°C and a barometric pressure of 1013.1 mbar \pm 2 mbar.

ION Science hereby certify that on the day of calibration the instrument was working according to the manufacturer's original sales specification as checked by the calibration procedure, unless otherwise stated.

Copies of this certificate may only be reproduced in full.

C9091/A11352

Calibrations are valid as certified only on date of Calibration. For correct instrument operation please see the User Manual.

RESULTS ON RECEIPT

Applied Concentration	Instrument Indication	
102.0 ppm Isobutylene	105.7 ppm Isobutylene	

RESULTS AFTER ADJUSTMENT

Instrument Indication
102.3 ppm Isobutylene

The estimated applied gas uncertainty is $\pm 2.0\%$

Comments: - Main PCB replaced prior to calibration.

PD-FM-086-07

Unrivalled Gas Detection.

ION Science Ltd, The Hive, Butts Lane, Fowlmere, Cambs, SG8 7SL, UK

T +44 (0)1763 208503

E info@ionscience.com

Williamscience com-





APPENDIX G -DESK STUDY DATA

- (i) Landmark Environmental Data sheets
- (ii) Historical Mapping
- (iii) Petroleum License Search



Envirocheck® Report:

Datasheet

Order Details:

Order Number:

180883921_1_1

Customer Reference:

733272/AW

National Grid Reference:

358600, 171800

Slice:

Α

Site Area (Ha):

0.05

Search Buffer (m):

1000

Site Details:

Lombard Service Station Brook Road Southville BRISTOL BS3 1AJ

Client Details:

S Pond Structural Soils Ltd The Old School House Stillhouse Lane, Bedminster Bristol BS3 4EB

Prepared For:

Sand Lane Construction Ltd



Order Number: 180883921_1_1 Date: 24-Sep-2018 rpr_ec_datasheet v53.0 A Landmark Information Group Service





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Waste	43
Hazardous Substances	46
Geological	47
Industrial Land Use	51
Sensitive Land Use	-
Data Currency	97
Data Suppliers	103
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Introduction

The Environment Act 1995 has made site sensitivity a key issue, as the legislation pays as much attention to the pathways by which contamination could spread, and to the vulnerable targets of contamination, as it does the potential sources of contamination.

For this reason, Landmark's Site Sensitivity maps and Datasheet(s) place great emphasis on statutory data provided by the Environment Agency/Natural Resources Wales and the Scottish Environment Protection Agency; it also incorporates data from Natural England (and the Scottish and Welsh equivalents) and Local Authorities; and highlights hydrogeological features required by environmental and geotechnical consultants. It does not include any information concerning past uses of land. The datasheet is produced by querying the Landmark database to a distance defined by the client from a site boundary provided by the client.

In the attached datasheet the National Grid References (NGRs) are rounded to the nearest 10m in accordance with Landmark's agreements with a number of Data Suppliers.

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Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Agency & Hydrological					
BGS Groundwater Flooding Suscept bility	pg 1		Yes	Yes	n/a
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 1		11	13	31
Prosecutions Relating to Controlled Waters			n/a	n/a	n/a
Enforcement and Prohibition Notices					
Integrated Pollution Controls					
Integrated Pollution Prevention And Control					
Local Authority Integrated Pollution Prevention And Control					
Local Authority Pollution Prevention and Controls	pg 15		1	5	10
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 17		Yes		
Pollution Incidents to Controlled Waters					
Prosecutions Relating to Authorised Processes	pg 17				1
Registered Radioactive Substances	pg 17			13	
River Quality	pg 19			1	1
River Quality Biology Sampling Points					
River Quality Chemistry Sampling Points					
Substantiated Pollution Incident Register	pg 20				1
Water Abstractions	pg 20				19 (*38)
Water Industry Act Referrals					
Groundwater Vulnerability	pg 34	Yes	n/a	n/a	n/a
Drift Deposits	pg 34	1	n/a	n/a	n/a
Bedrock Aquifer Designations	pg 34	Yes	n/a	n/a	n/a
Superficial Aquifer Designations	pg 34	Yes	n/a	n/a	n/a
Source Protection Zones					
Extreme Flooding from Rivers or Sea without Defences	pg 34	Yes	Yes	n/a	n/a
Flooding from Rivers or Sea without Defences	pg 35		Yes	n/a	n/a
Areas Benefiting from Flood Defences				n/a	n/a
Flood Water Storage Areas				n/a	n/a
Flood Defences				n/a	n/a
OS Water Network Lines	pg 36		11	12	27



Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Waste					
BGS Recorded Landfill Sites					
Historical Landfill Sites					
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)					
Licensed Waste Management Facilities (Locations)	pg 43				4
Local Authority Landfill Coverage	pg 43	1	n/a	n/a	n/a
Local Authority Recorded Landfill Sites					
Potentially Infilled Land (Non-Water)	pg 43		1	1	2
Potentially Infilled Land (Water)	pg 44				4
Registered Landfill Sites					
Registered Waste Transfer Sites	pg 44				3
Registered Waste Treatment or Disposal Sites	pg 45				2
Hazardous Substances					
Control of Major Accident Hazards Sites (COMAH)					
Explosive Sites					
Notification of Installations Handling Hazardous Substances (NIHHS)	pg 46				1
Planning Hazardous Substance Consents	pg 46				1
Planning Hazardous Substance Enforcements					



Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Geological					
BGS 1:625,000 Solid Geology	pg 47	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry	pg 47	Yes	Yes	Yes	Yes
BGS Recorded Mineral Sites	pg 49				3
BGS Urban Soil Chemistry					
BGS Urban Soil Chemistry Averages					
CBSCB Compensation District			n/a	n/a	n/a
Coal Mining Affected Areas	pg 49	Yes	n/a	n/a	n/a
Mining Instability	pg 49	Yes	n/a	n/a	n/a
Man-Made Mining Cavities	pg 49				1
Natural Cavities					
Non Coal Mining Areas of Great Britain				n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 50		Yes	n/a	n/a
Potential for Compress ble Ground Stability Hazards	pg 50	Yes	Yes	n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 50	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 50	Yes	Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 50	Yes		n/a	n/a
Radon Potential - Radon Affected Areas			n/a	n/a	n/a
Radon Potential - Radon Protection Measures			n/a	n/a	n/a
Industrial Land Use					
Contemporary Trade Directory Entries	pg 51	2	33	81	183
Fuel Station Entries	pg 76			2	4
Points of Interest - Commercial Services	pg 76	1	9	34	54
Points of Interest - Education and Health	pg 84		1	5	1
Points of Interest - Manufacturing and Production	pg 85		2	32	49
Points of Interest - Public Infrastructure	pg 92		2	7	18
Points of Interest - Recreational and Environmental	pg 94			12	11
Gas Pipelines					
Underground Electrical Cables					



	D				=044 4000
Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Sensitive Land Use					
Ancient Woodland					
Areas of Adopted Green Belt					
Areas of Unadopted Green Belt					
Areas of Outstanding Natural Beauty					
Environmentally Sensitive Areas					
Forest Parks					
Local Nature Reserves					
Marine Nature Reserves					
National Nature Reserves					
National Parks					
Nitrate Sensitive Areas					
Nitrate Vulnerable Zones					
Ramsar Sites					
Sites of Special Scientific Interest					
Special Areas of Conservation					
Special Protection Areas					
World Heritage Sites					



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Poten ial for Groundwater Flooding to Occur	A13NW (N)	37	1	358599 171850
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Poten ial for Groundwater Flooding to Occur	A13NW (W)	40	1	358550 171800
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Poten ial for Groundwater Flooding to Occur	A13SE (S)	82	1	358600 171700
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Poten ial for Groundwater Flooding to Occur	A13NW (N)	187	1	358599 172000
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Poten ial for Groundwater Flooding to Occur	A13SW (SW)	194	1	358450 171650
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Poten ial for Groundwater Flooding to Occur	A13NW (N)	237	1	358599 172050
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Poten ial for Groundwater Flooding to Occur	A13SE (S)	285	1	358650 171500
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A8NE (S)	345	1	358700 171450
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Poten ial for Groundwater Flooding to Occur	A8NE (S)	382	1	358600 171400
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Leve	el A8NE (S)	384	1	358650 171400
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Poten ial for Groundwater Flooding to Occur	A14NW (E)	404	1	359000 171900
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Poten ial for Groundwater Flooding to Occur	A13NE (NE)	413	1	358900 172100
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A8NE (S)	432	1	358600 171350
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Leve	el A14NW (NE)	438	1	359000 172000
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Poten ial for Groundwater Flooding to Occur	A17SE (NW)	480	1	358250 172150
1	Discharge Consents Operator: Asda Superstore Property Type: MAKING OF FOOD PRODUCTS/DAIRY Location: Asda Superstore, East Street, Bedminster, Bristol, Bs3 4jy Authority: Environment Agency, South West Region Catchment Area: Tidal Bristol Avon Reference: 100161 Permit Version: 1 Effective Date: 24 h March 1997 Issued Date: 24 h March 1997 Revocation Date: Not Supplied Discharge Type: Trade Effluent Discharge-Site Drainage Discharge Environment: Receiving Water: River Malago New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995)	A13NE (NE)	71	2	358660 171855

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Discharge Consen	is				
1	Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Asda Superstore SHOP INCL GARDEN CENTRE/RETAIL TRADE(NOT MOTOR VEHICLE) Asda Superstore (Bedminster), Regent/New Charlotte Sts, Bedminster, Bristol, Bs3 4jy Environment Agency, South West Region Tidal Bristol Avon 010294 1 1st July 1987 Not Supplied 1st October 1996 Discharge Of Other Matter-Surface Water Freshwater Stream/River Malago, Culverted R Lapsed (under Environment Act 1995, Schedule 23) Located by supplier to within 10m	A13NE (NE)	74	2	358660 171860
	Discharge Consent	ts				
2	Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Asda Superstore SHOP INCL GARDEN CENTRE/RETAIL TRADE(NOT MOTOR VEHICLE) Asda Superstore (Bedminster), Regent/New Charlotte Sts, Bedminster, Bristol, Bs3 4jy Environment Agency, South West Region Tidal Bristol Avon 010294 1 1st July 1987 Not Supplied 1st October 1996 Discharge Of Other Matter-Surface Water Freshwater Stream/River Malago, Culverted R Lapsed (under Environment Act 1995, Schedule 23) Located by supplier to within 10m	A13NE (NE)	156	2	358750 171870
_	Discharge Consent			450		
2		Asda Superstore MAKING OF FOOD PRODUCTS/DAIRY Asda Superstore, East Street, Bedminster, Bristol, Bs3 4jy Environment Agency, South West Region Tidal Bristol Avon 100161 1 24 h March 1997 24 h March 1997 Not Supplied Trade Effluent Discharge-Site Drainage Freshwater Stream/River River Malago New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Located by supplier to within 100m	A13NE (NE)	159	2	358755 171865
	Discharge Consent	ds				
2	Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Asda Superstore Retail Distribution Asda Superstore (Bedminster), Regent/New Charlotte Sts, Bedminster, Bristol, Bs3 4jy Environment Agency, South West Region Tidal Bristol Avon 010294 1 1st July 1987 Not Supplied 1st October 1996 Discharge Of Other Matter-Surface Water Freshwater Stream/River Malago, Culverted R Lapsed (under Environment Act 1995, Schedule 23) Located by supplier to within 100m	A13NE (E)	162	2	358760 171860

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
3	Discharge Consent	s Wessex Water Services Ltd	A13NW	238	2	358540
3	Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Cumberland Road S S O(Bristol), Bristol, Avon Environment Agency, South West Region Tidal Bristol Avon 010176 1 1st February 1986 Not Supplied 31st December 1993 Public Sewage: Storm Sewage Overflow Freshwater Stream/River Avon,River(Tidal) Consent revoked: Discharge ceased (Water Resources Act 1991, Schedule 10 & 6) Located by supplier to within 100m	(N)	230	2	172045
3	Discharge Consent Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status:	Wessex Water Services Ltd STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Broad Quay Cso, Broad Quay, City Centre, Bristol Environment Agency, South West Region Tidal Bristol Avon 100456 1 9th February 1998 9th February 1998 Not Supplied Public Sewage: Storm Sewage Overflow Freshwater Stream/River River Avon New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Located by supplier to within 100m	A13NW (N)	243	2	358570 172055
	Discharge Consent	,				
3	Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Wessex Water Services Ltd STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Cumberland Road S S O(Bristol), Bristol, Avon Environment Agency, South West Region Tidal Bristol Avon 010113 1 22nd January 1985 Not Supplied 14 h February 1996 Public Sewage: Storm Sewage Overflow Freshwater Stream/River Trib Of River Avon Consent revoked: Discharge ceased (Section 37(1)) Located by supplier to within 100m	A13NW (N)	243	2	358540 172050
•	Discharge Consent					
3	Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Wessex Water Services Limited STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Broad Quay Outfall, Bristol, Broad Quay, Southville, Bristol, Bs1 4da Environment Agency, South West Region Frome (Bristol) 103054 1 22nd December 2005 27 h July 2005 Not Supplied Public Sewage: Storm Sewage Overflow Freshwater Stream/River River Avon(S) New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Located by supplier to within 10m	A13NW (N)	248	2	358570 172060

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
3	Discharge Consent Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Wessex Water Services Limited STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Cumberland Cso, Near Swing Bridge, Cumberland Road, Bristol Central Environment Agency, South West Region Tidal Bristol Avon 101080 1 25 h April 2000 4th May 2000 Not Supplied Public Sewage: Storm Sewage Overflow Freshwater Stream/River (S) Culverted River Frome New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Located by supplier to within 10m	A13NW (N)	248	2	358570 172060
3	Discharge Consent Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Wessex Water Services Ltd STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Cumberland Sso, Cumberland Road, Bristol Environment Agency, South West Region Tidal Bristol Avon 021595 1 15 h October 1987 Not Supplied 25 h April 2000 Public Sewage: Storm Sewage Overflow Freshwater Stream/River Trib Of River Bristol Avon Deemed Consent - 1986 Variation Located by supplier to within 100m	A13NW (N)	248	2	358570 172060
3	Discharge Consent Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Wessex Water Services Limited STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Clare Street Cso, Junction Wi h Broad Quay, Bristol Environment Agency, South West Region Tidal Bristol Avon 101081 1 25 h April 2000 4th May 2000 Not Supplied Public Sewage: Storm Sewage Overflow Freshwater Stream/River (S) Culverted River Frome New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Located by supplier to within 10m	A13NW (N)	268	2	358570 172080
4	Discharge Consent Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Wessex Water Services Ltd STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Off Coronation Road, Southville, Bristol Environment Agency, South West Region Tidal Bristol Avon 021601 1 15 h October 1987 Not Supplied 7th January 2015 Public Sewage: Storm Sewage Overflow Freshwater Stream/River River Avon (E) Surrendered under EPR 2010 Located by supplier to within 100m	A13NE (NE)	308	2	358810 172040

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
5	Discharge Consents Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Wessex Water Services Ltd STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Outside 1 Coronation Road, Bristol, Bs3 1aa Environment Agency, South West Region Tidal Bristol Avon 011274 1 12 h September 1989 Not Supplied 26 h July 2004 Public Sewage: Storm Sewage Overflow Freshwater Stream/River River Malago Application refused - 1961 Rivers (Prevention of Pollution) Act Located by supplier to within 100m	A13NE (NE)	370	2	358910 172020
5	Discharge Consents Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Wessex Water Services Ltd STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Coronation Road, Southville, Bristol Environment Agency, South West Region Tidal Bristol Avon 021593 1 15 h October 1987 Not Supplied 25 h April 2000 Public Sewage: Storm Sewage Overflow Freshwater Stream/River Trib Of River Bristol Avon Deemed Consent - 1986 Variation Located by supplier to within 100m	A13NE (NE)	392	2	358930 172030
6	Discharge Consents Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Wessex Water Services Ltd STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) East Street Cso, Malago, Bristol Environment Agency, South West Region Tidal Bristol Avon 011270 1 12 h September 1989 Not Supplied 31st May 2005 Public Sewage: Storm Sewage Overflow Freshwater Stream/River River Malago Authorisation revoked Located by supplier to within 100m	A8NW (SW)	415	2	358330 171460
7	Discharge Consents Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Wessex Water Services Limited STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Commercial Road Cso, Near Bedminster Bridge, Bristol, Bs1 6tg Environment Agency, South West Region Tidal Bristol Avon 102830 1 1st April 2005 16 h March 2005 30 h March 2017 Public Sewage: Storm Sewage Overflow Freshwater Stream/River River Avon (E) New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Located by supplier to within 10m	A14NW (NE)	420	2	358950 172050

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
7	Discharge Consent Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Wessex Water Services Limited STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Commercial Road Cso, Near Bedminster Bridge, Bristol, Bs1 6tg Environment Agency, South West Region Tidal Bristol Avon 102830 2 31st March 2017 15 h March 2017 Not Supplied Public Sewage: Storm Sewage Overflow Saline Estuary River Avon (Estuarine) Varied under EPR 2010 Located by supplier to within 10m	A14NW (NE)	421	2	358950 172053
7	Discharge Consent Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Wessex Water Services Limited STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Commercial Road Cso, Near Bedminster Bridge, Bristol, Bs1 6tg Environment Agency, South West Region Tidal Bristol Avon 101096 1 25 h April 2000 5th May 2000 31st March 2005 Public Sewage: Storm Sewage Overflow Saline Estuary (E) River Avon Authorisation revoked Located by supplier to within 10m	A14NW (NE)	426	2	358950 172060
7	Discharge Consent Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Wessex Water Services Ltd STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Bedminster Bridge Sso, Commercial Road, Bristol Environment Agency, South West Region Tidal Bristol Avon 021592 1 15 h October 1987 Not Supplied 25 h April 2000 Public Sewage: Storm Sewage Overflow Freshwater Stream/River Trib Of River Bristol Avon Deemed Consent - 1986 Variation Located by supplier to within 100m	A14NW (NE)	426	2	358950 172060
7	Discharge Consent Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Wessex Water Services Ltd STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Bedminster Bridge Sso, Commercial Road, Bristol Environment Agency, South West Region Tidal Bristol Avon 010175 1 1st February 1986 Not Supplied 31st December 1993 Public Sewage: Storm Sewage Overflow Freshwater Stream/River Avon,River(Tidal) Consent revoked: Discharge ceased (Water Resources Act 1991, Schedule 10 & 6) Located by supplier to within 100m	A14NW (NE)	428	2	358960 172050

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Discharge Consent	s				
7	Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status:	Wessex Water Services Ltd STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Commercial Road, Near Wapping House, Bristol Environment Agency, South West Region Tidal Bristol Avon 011218 1 12 h September 1989 Not Supplied 25 h April 2000 Public Sewage: Storm Sewage Overflow Freshwater Stream/River Bristol Avon/Floating Harbour Temporary Consents (Water Act 1989, Section 113) Located by supplier to within 100m	A14NW (NE)	434	2	358960 172060
	Discharge Consent	s				
8	Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Wessex Water Services Ltd STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Bedminster Storm Overflow Jcn North St & Merrywood Rd, Bedminster, Bristol, Avon, Bs3 1hw Environment Agency, South West Region Tidal Bristol Avon 021514 1 23rd August 1971 Not Supplied 31st March 2002 Public Sewage: Storm Sewage Overflow Freshwater Stream/River Trib Of River Avon (S) Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Located by supplier to within 100m	A12SE (SW)	421	2	358240 171550
	Discharge Consent	s				
9	Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Lloyds Bank Pic CONSTRUCTION OF BUILDINGS Lloyds Bank Development, Canons Marsh, Bristol Environment Agency, South West Region Frome (Bristol) 010502 1 18 h June 1990 Not Supplied 1st October 1996 Discharge Of Other Matter-Surface Water Freshwater Stream/River Trib Of River Avon Lapsed (under Environment Act 1995, Schedule 23) Located by supplier to within 100m	A18SW (NW)	499	2	358380 172265
9	Discharge Consent	s Lloyds Bank Plc	A18SW	504	2	250200
9	Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Lloyds Bank Pic CONSTRUCTION OF BUILDINGS Lloyds Bank Development, Canons Marsh, Bristol Environment Agency, South West Region Tidal Bristol Avon 010451 1 18 h June 1990 Not Supplied Not Supplied Trade Discharges - Process Effluent - Water Company (Wtw) Freshwater Stream/River Trib Of River Avon New Consent, by Application (Water Resources Act 1991, Section 113 & Schedule 12) Located by supplier to within 10m	(NW)	304	2	358380 172270

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
10	Discharge Consent Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Wessex Water Services Ltd STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Pembroke Road Cso, O/S No. 19 Pembroke Road, Malago, Bristol, Bs3 1pp Environment Agency, South West Region Tidal Bristol Avon 011269 1 12 h September 1989 Not Supplied 15 h March 2007 Public Sewage: Storm Sewage Overflow Freshwater Stream/River River Malago Consent revoked or revised: New Consent issued (Section 37(1)) Located by supplier to within 100m	A12NE (W)	508	2	358090 171890
11		Wessex Water Services Ltd STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Corporation Rd Storm Overflow, (Malago Interceptor), Bristol, Avon Environment Agency, South West Region Tidal Bristol Avon 021518 1 19 h March 1973 28 h August 1985 Not Supplied Public Sewage: Storm Sewage Overflow Freshwater Stream/River Trib Of River Bristol Avon (S) Transferred from Rivers (Prevention of Pollution) Act 1951-1961 Located by supplier to within 100m	A12NE (NW)	570	2	358100 172100
11	Discharge Consent Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Wessex Water Services Ltd STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Cso Opp. 198 Bedminster Road, Malagol, Bristol, Bs3 5nq Environment Agency, South West Region Tidal Bristol Avon 103305 1 16 h March 2007 16 h March 2007 Not Supplied Public Sewage: Storm Sewage Overflow Freshwater Stream/River River Avon(S) New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Located by supplier to within 10m	A12NE (NW)	597	2	358080 172120
11	Discharge Consent Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Wessex Water Services Ltd STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Myrtle Street Cso Myrtle Street Car Park, R/O 13 Exmoor Street, Malago, Bristol Environment Agency, South West Region Tidal Bristol Avon 103306 1 16 h March 2007 16 h March 2007 Not Supplied Public Sewage: Storm Sewage Overflow Freshwater Stream/River River Avon(E) New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Located by supplier to within 10m	A12NE (NW)	597	2	358080 172120

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Discharge Consent					
11	Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Wessex Water Services Ltd STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Pembroke Road Cso, O/S No. 19 Pembroke Road, Malago, Bristol, Bs3 1pp Environment Agency, South West Region Tidal Bristol Avon 103307 1 16 h March 2007 16 h March 2007 Not Supplied Public Sewage: Storm Sewage Overflow Freshwater Stream/River River Avon(E) New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Located by supplier to within 10m	A12NE (NW)	597	2	358080 172120
	Discharge Consent	s				
12	Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Lloyds Bank Plc CONSTRUCTION OF BUILDINGS Lloyds Bank Development, Canons Marsh, Bristol Environment Agency, South West Region Frome (Bristol) 010502 1 18 h June 1990 Not Supplied 1st October 1996 Discharge Of Other Matter-Surface Water Freshwater Stream/River Trib Of River Avon Lapsed (under Environment Act 1995, Schedule 23) Located by supplier to within 100m	A18SW (N)	578	2	358480 172380
	Discharge Consent	s				
13		Lloyds Bank Plc CONSTRUCTION OF BUILDINGS Lloyds Bank Development, Canons Marsh, Bristol Environment Agency, South West Region Tidal Bristol Avon 010451 1 18 h June 1990 Not Supplied Not Supplied Trade Discharges - Cooling Water Freshwater Stream/River Trib Of River Avon New Consent, by Application (Water Resources Act 1991, Section 113 & Schedule 12) Located by supplier to within 10m	A18SW (NW)	607	2	358350 172370
	Discharge Consent		A 170-	225	•	0=00==
14	Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Clerical Medical Investment Group Ltd Undefined Or Other Land Off Cannons Way, Adj To Lloyds Tsb Building, Bristol Environment Agency, South West Region Tidal Bristol Avon 102566 1 27 h April 2004 8th June 2004 Not Supplied Trade Discharges - Cooling Water Saline Estuary Bristol Floating Harbour New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Located by supplier to within 100m	A17SE (NW)	625	2	358200 172300

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
15	Discharge Consent Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Wessex Water Services Ltd STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Cso Junc Camden Rd/Allington Rd, Bedminster, Bristol, Bs3 1qa Environment Agency, South West Region Tidal Bristol Avon 011819 1 12 h September 1989 Not Supplied 15 h May 2006 Public Sewage: Storm Sewage Overflow Freshwater Stream/River Trib Of River Avon Application refused - 1961 Rivers (Prevention of Pollution) Act Located by supplier to within 100m	A12NE (W)	643	2	357990 172040
16	Discharge Consent Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Wessex Water Services Limited STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) East Street Cso, Malago, Bristol Environment Agency, South West Region Tidal Bristol Avon 102898 1 1st June 2005 1st June 2005 Not Supplied Public Sewage: Storm Sewage Overflow Freshwater Stream/River River Avon(E) New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Located by supplier to within 10m	A12NE (NW)	680	2	357980 172110
17	Discharge Consent Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Wessex Water Services Ltd STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Spring Street, Opp B R Services Depot, Bristol, Bs3 4ag Environment Agency, South West Region Tidal Bristol Avon 011276 1 12 h September 1989 Not Supplied 26 h July 2004 Public Sewage: Storm Sewage Overflow Freshwater Stream/River River Malago Application refused - 1961 Rivers (Prevention of Pollution) Act Located by supplier to within 100m	A14NE (E)	752	2	359360 171820
18	Discharge Consent Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Bristol 2000 Undefined Or Other Wildscreen World , Canons Marsh , BRISTOL Environment Agency, South West Region Tidal Bristol Avon 100596/2/1 Not Supplied Not Supplied 15 h June 1998 Not Supplied Trade Effluent Tidal Waters Floating Harbour, Licence Status: Lapsed, Revoked Or Cancelled Not Supplied Located by supplier to within 100m	A18NW (N)	794	2	358530 172605

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
18	Discharge Consents Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Mr Ian Cunningham MAKING OF MOTOR VEHICLES+TRAILERS/CARS/CARAVANS Wildscreen World, Canons Marsh, Bristol, Bs1 Environment Agency, South West Region Frome (Bristol) 100596 1 15 h June 1998 Not Supplied Not Supplied Trade Boiler Blowdown Effluent: Unspecified Freshwater Stream/River Floating Harbour New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Located by supplier to within 10m	A18NW (N)	799	2	358530 172610
19	Discharge Consent: Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Wessex Water Services Limited STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) St Johns Lane Cso, Lower Knowle, Bristol, Bs3 5hn Environment Agency, South West Region Tidal Bristol Avon 101671 1 31st March 2002 29 h November 2001 21st April 2013 Public Sewage: Storm Sewage Overflow Freshwater Stream/River The Malago (S) New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Located by supplier to within 10m	A8SW (S)	827	2	358500 170960
20	Discharge Consents Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Wessex Water Services Ltd STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Myrtle Street Cso Myrtle Street Car Park, R/O 13 Exmoor Street, Malago, Bristol Environment Agency, South West Region Tidal Bristol Avon 011267 1 12 h September 1989 Not Supplied 15 h March 2007 Public Sewage: Storm Sewage Overflow Freshwater Stream/River River Malago Consent revoked or revised: New Consent issued (Section 37(1)) Located by supplier to within 100m	A7NW (SW)	835	2	357830 171440
21	Discharge Consents Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Wessex Water Services Ltd STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Sso Access From York Road, Totterdown, Bristol Environment Agency, South West Region Tidal Bristol Avon 021590 1 15 h October 1987 Not Supplied 15 h May 2006 Public Sewage: Storm Sewage Overflow Saline Estuary River Avon (E) Authorisation revoked Located by supplier to within 100m	A14NE (E)	836	2	359420 172000

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
21	Discharge Consents Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Wessex Water Services Ltd STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) York Road, Junc St Lukes Road, Bristol Environment Agency, South West Region Tidal Bristol Avon 011280 1 12 h September 1989 Not Supplied 15 h May 2006 Public Sewage: Storm Sewage Overflow Freshwater Stream/River Unknown Authorisation revoked Located by supplier to within 100m	A14NE (E)	853	2	359440 171990
22	Discharge Consents Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Wessex Water Services Ltd STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Cumberland Road, Bristol Environment Agency, South West Region Tidal Bristol Avon 021596 1 15 h October 1987 Not Supplied 7th January 2015 Public Sewage: Storm Sewage Overflow Freshwater Stream/River River Avon (E) Surrendered under EPR 2010 Located by supplier to within 100m	A17SW (NW)	842	2	357820 172150
22	Discharge Consents Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Type: Discharge Type: Status: Positional Accuracy:	Wessex Water Services Ltd MAKING OF OTHER TRANSPORT EQUIP/SHIPS/TRAINS/BIKES Albion Dockyard, By Cumberland Road, Bristol Environment Agency, South West Region Tidal Bristol Avon 021597 1 15 h October 1987 Not Supplied 25 h April 2000 Discharge Of Other Matter-Surface Water Freshwater Stream/River Trib Of River Bristol Avon Deemed Consent: Transitional Provisions (Section 40) Located by supplier to within 100m	A17SW (NW)	870	2	357790 172150
22	Discharge Consents Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Wessex Water Services Ltd MAKING OF OTHER TRANSPORT EQUIP/SHIPS/TRAINS/BIKES Albion Dockyard, By Cumberland Road, Bristol Environment Agency, South West Region Tidal Bristol Avon 021598 1 15 h October 1987 Not Supplied 25 h April 2000 Discharge Of Other Matter-Surface Water Freshwater Stream/River Trib Of River Bristol Avon Deemed Consent - 1986 Variation Located by supplier to within 100m	A17SW (NW)	879	2	357780 172150

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
23	Discharge Consent Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Wessex Water Services Ltd STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) St Johns Lane Cso, Lower Knowle, Bristol, Bs3 5hn Environment Agency, South West Region Tidal Bristol Avon 011273 1 12 h September 1989 Not Supplied 31st March 2002 Public Sewage: Storm Sewage Overflow Freshwater Stream/River River Malago Authorisation revoked Located by supplier to within 100m	A8SE (S)	847	2	358850 170970
24	-	Wessex Water Services Ltd STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Broad Quay Cso, Broad Quay, City Centre, Bristol Environment Agency, South West Region Tidal Bristol Avon 011212 1 12 h September 1989 Not Supplied 25 h April 2000 Public Sewage: Storm Sewage Overflow Freshwater Stream/River Bristol Avon/Floating Harbour Temporary Consents (Water Act 1989, Section 113) Located by supplier to within 100m	A18NE (N)	889	2	358650 172700
25	Discharge Consent Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	The Serviced Apartment Company Ltd DOMESTIC PROPERTY (MULTIPLE) (INCL FARM HOUSES) Purifier House & Building 1 Cannons Marsh, Anchor Road, Bristol, Avon Environment Agency, South West Region Tidal Bristol Avon 103905 1 9th January 2008 9th January 2008 Not Supplied Trade Discharges - Cooling Water Freshwater Stream/River The Floating Harbour New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Located by supplier to within 10m	A17NE (NW)	892	2	358000 172480
26	Discharge Consent Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Wessex Water Services Limited STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Bedminster Rd Cycle Track Cso, Near 14/15 Lower Knoyle, Malago, Bristol, Bs3 5pe Environment Agency, South West Region Tidal Bristol Avon 101670 1 31st March 2002 29 h November 2001 Not Supplied Public Sewage: Storm Sewage Overflow Freshwater Stream/River The Malago (S) New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Located by supplier to within 10m	A8SW (S)	898	2	358490 170890

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
26	Discharge Consent Operator:	Wessex Water Services Ltd	A8SW	908	2	358490
	Property Type: Location:	STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Bedminster Rd Cycle Track Cso, Near 14/15 Lower Knoyle, Malago, Bristol, Bs3 5pe	(S)			170880
	Authority: Catchment Area: Reference:	Environment Agency, South West Region Tidal Bristol Avon 011817				
	Permit Version: Effective Date: Issued Date:	1 12 h September 1989 Not Supplied				
	Revocation Date: Discharge Type: Discharge	31st March 2002 Public Sewage: Storm Sewage Overflow Freshwater Stream/River				
	Environment: Receiving Water: Status:	Trib Of River Avon Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995)				
	Positional Accuracy:	Located by supplier to within 100m				
	Discharge Consent	s				
27	Operator: Property Type: Location: Authority: Catchment Area: Reference:	Wessex Water Services Ltd STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Anchor Road, Opp Cathedral Garage, Bristol Environment Agency, South West Region Tidal Bristol Avon 011210	A17NE (NW)	955	2	358010 172570
	Permit Version: Effective Date: Issued Date:	1 12 h September 1989 Not Supplied				
	Revocation Date: Discharge Type: Discharge Environment:	25 h April 2000 Public Sewage: Storm Sewage Overflow Freshwater Stream/River				
	Receiving Water: Status:	Bristol Avon/Floating Harbour Temporary Consents (Water Act 1989, Section 113) Located by supplier to within 100m				
	Discharge Consent	s				
28	Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version:	Wessex Water Services Limited STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) St Johns Lane Cso, Lower Knowle, Bristol, Bs3 5hn Environment Agency, South West Region Not Supplied 101671 2	A8SW (S)	960	2	358491 170828
	Effective Date: Issued Date: Revocation Date:	22nd April 2013 22nd April 2013 Not Supplied				
	Discharge Type: Discharge Environment:	Public Sewage: Storm Sewage Overflow Freshwater Stream/River				
	Receiving Water: Status: Positional Accuracy:	The Malago (S) Varied under EPR 2010 Located by supplier to within 10m				
	Discharge Consent	s				
28	Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version:	Wessex Water Services Ltd STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) St Johns Lane Storm Overflow, St Johns Lane South Side, Bedminster, Bristol Environment Agency, South West Region Tidal Bristol Avon 021444 1	A8SW (S)	987	2	358500 170800
	Effective Date: Issued Date: Revocation Date: Discharge Type:	13 h November 1973 13 h November 1973 Not Supplied Public Sewage: Storm Sewage Overflow				
	Discharge Environment: Receiving Water: Status:	Freshwater Stream/River Trib Of River Bristol Avon (S) Transferred from Rivers (Prevention of Pollution) Act 1951-1961 Located by supplier to within 100m				

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Discharge Consent					
29	Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Wessex Water Services Ltd STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) St Lukes Road, Junc Hill Avenue, Bristol, Bs3 4rx Environment Agency, South West Region Tidal Bristol Avon 011278 2 28 h September 2010 28 h September 2010 17 h April 2014 Public Sewage: Storm Sewage Overflow Freshwater Stream/River River Malago Surrendered under EPR 2010 Located by supplier to within 10m	A14SE (E)	995	2	359580 171570
29	Discharge Consent Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Type: Discharge Type: Status: Positional Accuracy:	Wessex Water Services Ltd STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) St Lukes Road, Junc Hill Avenue, Bristol, Bs3 4rx Environment Agency, South West Region Tidal Bristol Avon 011278 1 12 h September 1989 Not Supplied 27 h September 2010 Public Sewage: Storm Sewage Overflow Freshwater Stream/River River Malago Temporary Consents (Water Act 1989, Section 113) Located by supplier to within 100m	A14SE (E)	995	2	359580 171570
30	Name: Location: Authority: Permit Reference: Dated: Process Type: Description: Status:	Johnson Cleaners Uk Ltd Unit 2 Asda, East Street, Bedminster, Bristol, Bs3 4jy Bristol City Council, Environmental Health Department EP251 31st October 2007 Local Authority Pollu ion Prevention and Control PG6/46 Dry cleaning Permitted Manually posi ioned to the address or location	A13SE (E)	148	3	358756 171777
31	Local Authority Pol Name: Location: Authority: Permit Reference: Dated: Process Type: Description: Status:	Stafford Street Garage 6-16 Stafford Street, BRISTOL, Avon, BS3 4DA Bristol City Council, Environmental Health Department Ep75 31st March 1993 Local Authority Pollu ion Prevention and Control PG1/1Waste oil burners, less than 0.4MW net rated thermal input Permitted Automatically positioned to the address	A13SE (S)	260	3	358623 171523
32	Name: Location: Authority: Permit Reference: Dated: Process Type: Description: Status:	Uk Carbody Ltd 6 Whitehouse Lane, Bedminster, Bristol, Bs3 4dn Bristol City Council, Environmental Health Department EP232 31st March 2008 Local Authority Pollu ion Prevention and Control PG6/34 Respraying of road vehicles Permitted Manually posi ioned to the address or location	A13SE (SE)	322	3	358822 171542
33	Name: Location: Authority: Permit Reference: Dated: Process Type: Description: Status:	Ilution Prevention and Controls Wiltshire (Bristol) Limited Philip Street, BEDMINSTER, Avon, BS3 4DS Bristol City Council, Environmental Health Department Ep76 Not Supplied Local Authority Air Pollution Control Part B - General Coating Process (No Specific Reference) Authorisation revoked Manually posi ioned to the road wi hin the address or location	A13SE (E)	329	3	358919 171675

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
34	Name: Location: Authority: Permit Reference: Dated: Process Type: Description: Status:	Iution Prevention and Controls Westend Service StationElf 79 Coronation Road, BRISTOL, Avon, BS3 1AT Bristol City Council, Environmental Health Department Ep164 8th January 1999 Local Authority Air Pollution Control PG1/14 Petrol filling station Authorisation revoked Automatically positioned to the address	A13NW (NW)	357	3	358302 172021
35	Name: Location: Authority: Permit Reference: Dated: Process Type: Description: Status:	Iution Prevention and Controls Pring & St Hill Ltd Malago Road, Bedminster, BRISTOL, Avon, BS3 4JH Bristol City Council, Environmental Health Department EP112 Not Supplied Local Authority Air Pollution Control PG6/34 Respraying of road vehicles Not Supplied Automatically positioned to the address	A8NW (S)	465	3	358575 171318
36	Name: Location: Authority: Permit Reference: Dated: Process Type: Description: Status:	Iution Prevention and Controls The Keep It Clean Co 6 Redcliff Hill, Bristol, Bs1 6tb Bristol City Council, Environmental Health Department EP243 Not Supplied Local Authority Pollu ion Prevention and Control PG6/46 Dry cleaning Permitted Manually posi ioned to the address or location	A14NW (NE)	503	3	358992 172132
36	Name: Location: Authority: Permit Reference: Dated: Process Type: Description: Status:	Iution Prevention and Controls Keep It Clean 6 Waring House, Redcliff Hill, Bristol, Bs1 6tb Bristol City Council, Environmental Health Department Not Supplied Not Supplied Local Authority Pollu ion Prevention and Control PG6/46 Dry cleaning Application exempt from APC Manually posi ioned to the address or location	A14NW (NE)	503	3	358992 172132
37	Name: Location: Authority: Permit Reference: Dated: Process Type: Description: Status:	Iution Prevention and Controls Tr Demolition Uk International Ltd Davron Court, Whitehouse Lane, Bedminster, Bristol, Bs3 4bl Bristol City Council, Environmental Health Department EP234 2nd December 2004 Local Authority Pollu ion Prevention and Control PG3/16 Mobile screening and crushing processes Permitted Manually posi ioned to the address or location	A14NW (E)	553	3	359160 171839
38	Name: Location: Authority: Permit Reference: Dated: Process Type: Description: Status:	Iution Prevention and Controls Tr Demolition (Uk-International) Ltd Whitehouse Place, Bristol, Bs3 4bl Bristol City Council, Environmental Health Department Not Supplied Not Supplied Local Authority Pollu ion Prevention and Control Part B process (no specific reference) Permitted Manually posi ioned to the road wi hin the address or location	A14NW (E)	571	3	359176 171853
38	Name: Location: Authority: Permit Reference: Dated: Process Type: Description: Status:	Iution Prevention and Controls Ap Autocare Whitehouse Place, Bedminster, BRISTOL, Avon, BS3 4BL Bristol City Council, Environmental Health Department Ep222 1st May 2001 Local Authority Pollu ion Prevention and Control PG1/1Waste oil burners, less than 0.4MW net rated thermal input Permitted Manually posi ioned to the address or location	A14NW (E)	609	3	359212 171872

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	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
Name: Location: Authority: Permit Reference: Dated: Process Type: Description: Status:	The Keep It Clean Co 6 Waring House, Redcliffe Hill, Bristol, Bs1 6tb Bristol City Council, Environmental Health Department EP241 Not Supplied Local Authority Pollu ion Prevention and Control PG6/46 Dry cleaning Permitted	A19SW (NE)	683	3	358993 172372
Name: Location: Authority: Permit Reference: Dated: Process Type: Description: Status:	Templegate Peugeot Spring Street, Bedminster, BRISTOL, Avon, BS3 4PZ Bristol City Council, Environmental Health Department EP131 Not Supplied Local Authority Pollu ion Prevention and Control PG6/34 Respraying of road vehicles Application exempt from APC	A14NE (E)	746	3	359349 171884
Name: Location: Authority: Permit Reference: Dated: Process Type: Description: Status:	Crago Motors Exmoor Street, BRISTOL, Avon, BS3 1HD Bristol City Council, Environmental Health Department Ep086 18 h May 1993 Local Authority Air Pollution Control PG1/1Waste oil burners, less than 0.4MW net rated thermal input Application Withdrawn	A7NW (SW)	818	3	357845 171448
Name: Location: Authority: Permit Reference: Dated: Process Type: Description: Status:	Drg Malago Ltd. Malago Works, Argus Road, BRISTOL, Avon, BS3 3PB Bristol City Council, Environmental Health Department Ep066 27 h May 1994 Local Authority Air Pollution Control Part B - General Coating Process (No Specific Reference) Authorised	A7SE (SW)	870	3	358158 171028
Local Authority Pol Name: Location: Authority: Permit Reference: Dated: Process Type: Description: Status:	Iution Prevention and Controls York Road Service Sta ion York Road, Bedminster, BRISTOL, Avon, BS3 4AB Bristol City Council, Environmental Health Department EP134 22nd January 1999 Local Authority Pollu ion Prevention and Control PG1/14 Petrol filling station Permitted	A14NE (E)	996	3	359568 172068
Nearest Surface Wa	nter Feature	A13SE (SE)	186	-	358714 171629
Location: Prosecution Text: Prosecution Act: Hearing Date: Verdict: Fine: Costs:	Sheene Road, Bedminster, BRISTOL, Avon, BS3 4EG EA News Release 21/07/1997 (Case 2 of 4), Illegally dumping waste on four sites in the south-west and failing to obtain registration as a carrier of waste. Given a six month prison sentence. EPA90 21st July 1997 Guilty 0 0	A8NW (S)	613	2	358400 171200
_	**	A13NE (NE)	380	2	358845 172105
	Name: Location: Authority: Permit Reference: Dated: Process Type: Description: Status: Positional Accuracy: Local Authority Pol Name: Location: Authority: Permit Reference: Dated: Process Type: Description: Status: Positional Accuracy: Local Authority Pol Name: Location: Authority: Permit Reference: Dated: Process Type: Description: Status: Positional Accuracy: Local Authority Pol Name: Location: Authority: Permit Reference: Dated: Process Type: Description: Status: Positional Accuracy: Local Authority Pol Name: Location: Authority: Permit Reference: Dated: Process Type: Description: Status: Positional Accuracy: Local Authority Pol Name: Location: Authority: Permit Reference: Dated: Process Type: Description: Status: Positional Accuracy: Name: Location: Authority: Permit Reference: Dated: Process Type: Description: Status: Positional Accuracy: Registered Radioac Name: Location: Authority: Permit Reference: Dated: Procesution Act: Hearing Date: Verdict: Fine: Costs: Positional Accuracy: Registered Radioac Name: Location: Authority: Permit Reference: Dated: Process Type: Description: Status: Positional Accuracy: Registered Radioac Name: Location: Authority: Permit Reference: Dated: Process Type: Description: Status: Positional Accuracy:	Local Authority Pollution Prevention and Controls Name: The Keep It Clean Co 6 Warning Mouse, Reddirfer Hill, Bristol, Bs1 6tb 18 Warning Mouse, Reddirfer Hill, Bristol, Bs1 6tb 18 Warning Mouse, Reddirfer Hill, Bristol, Bs1 6tb 18 Warning Mouse, Reddirfer Hill, Bristol, Bs1 6tb 18 Warning Mouse, Reddirfer Hill, Bristol, Bs1 6tb 18 Warning Mouse, Reddirfer Hill, Bristol, Bs1 6tb 18 Warning Mouse, Reddirfer Hill, Bristol, Bs1 6tb 18 Warning Mouse, Reddirfer Hill, Bristol, Bs1 6tb 18 Warning Mouse, Bs1 6tb 18	Local Authority Pollution Prevention and Controls Name: The Keep It Clean Co Location: Status: Permit Reference Status: Permit Reference Status: Permit Reference Status: Process Type: Description: Status: Process Type: Description: Description: Status: Process Type: Description: Status: Process Type: Description: Description: Status: Process Type: Description: Status: Process Type: Description: Status: Process Type: Description: Status: Process Type: Description: Description: Status: Process Type: Description: Description: Status: Process Type: Description: Description: Status: Process Type: Description: Description: Description: Status: Process Type: Description: Descript	Details Details Details Reference (Compass Promiste (Compass Promiste Distance Promiste Distance Promiste Distance Promiste Promiste Promiste Promiste Promise Prom	Details

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	Registered Radioac	tive Substances				
45	Name: Location: Authority: Permit Reference: Dated: Process Type: Description: Status: Positional Accuracy:	University Hospitals Bristol Nhs Foundation Trust Bristol General Hospital, Guinea Street, BRISTOL, Avon, BS1 6SY Environment Agency, South West Region CC8419 27 h May 2009 Registration under S7 RSA for the keeping and use of Radioactive materials (was RSA60 S1) Minor variation to a registra ion under the Act of multiple open sources which are also the subject of authorisations Application has been authorised and any conditions apply to the operator Manually posi ioned to the address or location	A13NE (NE)	383	2	358844 172109
	Registered Radioac	tive Substances				
45	Name: Location: Authority: Permit Reference: Dated: Process Type: Description: Status: Positional Accuracy:	University Hospitals Bristol Nhs Foundation Trust Bristol General Hospital, Guinea Street, , BRISTOL, Avon, BS1 6SY Environment Agency, South West Region CC8427 27 h May 2009 Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Minor variation to authorisation under RSA Application has been authorised and any conditions apply to the operator Manually posi ioned to the address or location	A13NE (NE)	383	2	358844 172109
	Registered Radioac	tive Substances				
45	Name: Location: Authority: Permit Reference: Dated: Process Type: Description: Status: Positional Accuracy:	United Bristol Healthcare Nhs Trust Bristol General Hospital, Guinea Street, BRISTOL, Avon, BS1 6SY Environment Agency, South West Region AE9930 24 h July 1992 Registration under S7 RSA for the keeping and use of Radioactive materials (was RSA60 S1) Registration under the Act of an open source which is also the subject of an au horisa ion dated pre April 1991 Authorisation superseded by a substantial or non substantial variation	A13NE (NE)	383	2	358850 172105
	Registered Radioac	tive Substances				
45	Name: Location: Authority: Permit Reference: Dated: Process Type: Description: Status:	University Hospitals Bristol Nhs Foundation Trust Bristol General Hospital, Guinea Street, Bristol, BS1 6SY Environment Agency, South West Region CB0579 17 h January 2007 Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Minor variation to authorisation under RSA Authorisation superseded by a substantial or non substantial variation Automatically positioned to the address	A13NE (NE)	384	2	358845 172110
	Registered Radioac	tive Substances				
45	Name: Location: Authority: Permit Reference: Dated: Process Type: Description: Status: Positional Accuracy:	University Hospitals Bristol Nhs Foundation Trust Bristol General Hospital, Guinea Street, Bristol, BS1 6SY Environment Agency, South West Region CB0595 16 h January 2007 Registration under S7 RSA for the keeping and use of Radioactive materials (was RSA60 S1) Minor variation to a registra ion under the Act of an open source which is also the subject of an authorisation Authorisation superseded by a substantial or non substantial variation Automatically positioned to the address	A13NE (NE)	384	2	358845 172110
	Registered Radioac					
45	Name: Location: Authority: Permit Reference: Dated: Process Type: Description: Status: Positional Accuracy:	University Hospitals Bristol Nhs Foundation Trust Bristol General Hospital, Guinea Street, BRISTOL, Avon, BS1 6SY Environment Agency, South West Region Bx7533 27 h June 2004 Registration under S7 RSA for the keeping and use of Radioactive materials (was RSA60 S1) Substantial variation to a registration under the Act of an open source which is also he subject of an authorisation Authorisation superseded by a substantial or non substantial variation Authorisation superseded by the address	A13NE (NE)	384	2	358845 172110

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Registered Radioad	tive Substances				
45	Name: Location: Authority: Permit Reference: Dated: Process Type:	University Hospitals Bristol Nhs Foundation Trust Bristol General Hospital, Guinea Street, BRISTOL, Avon, BS1 6SY Environment Agency, South West Region Bw6426 1st December 2003 Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7)	A13NE (NE)	384	2	358845 172110
	Description: Status: Positional Accuracy:	Minor variation to authorisation under RSA Authorisation superseded by a substantial or non substantial variation Automatically positioned to the address				
	Registered Radioad	tive Substances				
45	Name: Location: Authority: Permit Reference: Dated: Process Type: Description: Status:	University Hospitals Bristol Nhs Foundation Trust Guinea Street, BRISTOL, Avon, BS1 6SY Environment Agency, South West Region Bj5317 3rd January 2001 Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Substantial variation to authorisation under RSA Authorisation superseded by a substantial or non substantial variation	A13NE (NE)	384	2	358845 172110
	Positional Accuracy:	Automatically positioned to the address				
	Registered Radioad	ctive Substances				
45	Name: Location: Authority: Permit Reference: Dated: Process Type: Description: Status:	University Hospitals Bristol Nhs Foundation Trust Bristol General Hospital, Guinea Street, BRISTOL, Avon, BS1 6SY Environment Agency, South West Region Bi0386 9th March 2000 Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Minor variation to authorisation under RSA Authorisation superseded by a substantial or non substantial variation	A13NE (NE)	384	2	358845 172110
	Positional Accuracy:	Automatically positioned to the address				
	Registered Radioad	tive Substances				
45	Name: Location: Authority: Permit Reference: Dated: Process Type: Description: Status: Positional Accuracy:	United Bristol Healthcare Nhs Trust Bristol Royal Infirmary, (Including St Michael S Hospital), Upper Maudlin Street, BRISTOL, BS1 6SY Environment Agency, South West Region AH1897 31st March 1991 Registration under S7 RSA for the keeping and use of Radioactive materials (was RSA60 S1) Registration under the Act of an open source which is also the subject of an au horisa ion Authorisation superseded by a substantial or non substantial variation Automatically positioned to the address	A13NE (NE)	384	2	358845 172110
	Registered Radioad					
45	Name: Location: Authority: Permit Reference: Dated: Process Type: Description: Status: Positional Accuracy:	University Hospitals Bristol Nhs Foundation Trust Bristol General Hospital, Guinea Street, BRISTOL, Avon, BS1 6SY Environment Agency, South West Region AC2632 31st March 1991 Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Authorisation under RSA Authorisation superseded by a substantial or non substantial variation	A13NE (NE)	387	2	358850 172110
	Registered Radioad	tive Substances				
45	Name: Location: Authority: Permit Reference: Dated: Process Type: Description: Status: Positional Accuracy:	University Hospitals Bristol Nhs Foundation Trust Bristol General Hospital, Guinea Street, BRISTOL, Avon, BS1 6SY Environment Agency, South West Region Al9435 6th October 1994 Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Minor variation to authorisation under RSA Authorisation superseded by a substantial or non substantial variation	A13NE (NE)	391	2	358850 172115
	River Quality Name: GQA Grade: Reach: Estimated Distance (km):	Floating Harbour River Quality B Conf With Bristol Frome-Conf With Avon 2.1	A18SW (N)	487	2	358429 172272
	Flow Rate: Flow Type: Year:	Flow less than 40 cumecs River 2000				

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	River Quality Name: GQA Grade: Reach: Estimated Distance (km): Flow Rate: Flow Type: Year:	Floating Harbour River Quality B Temple Meads-Conf With Bristol Frome 2.4 Flow less than 40 cumecs River 2000	A18SW (N)	542	2	358589 172355
46	Authority: Incident Date: Incident Reference: Water Impact: Air Impact: Land Impact: Positional Accuracy: Pollutant:	Category 1 - Major Incident Category 4 - No Impact Category 4 - No Impact Located by supplier to within 10m Pollutant Not Identified: Not Identified	A8SW (S)	741	2	358471 171051
47	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	Lloyds Bank Plc 17/53/001/S/427 100 Floating Harbour (Lloyds Bank 2) Environment Agency, South West Region Other Industrial/Commercial/Public Services: General Cooling (Existing Licences Only) (Low Loss) Water may be abstracted from a single point Surface Not Supplied Not Supplied Not Supplied Not Supplied 101 April 31 March 22nd June 1990 Not Supplied Located by supplier to within 10m	A18SW (NW)	508	2	358370 172270
47	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	Lloyds Bank Plc 17/53/001/S/427 100 Floating Harbour (Lloyds Bank) Environment Agency, South West Region Other Industrial/Commercial/Public Services: General Cooling (Existing Licences Only) (Low Loss) Water may be abstracted from a single point Surface Not Supplied Not Supplied Two Intakes; Bristol Floatgharbr 01 April 31 March 22nd June 1990 Not Supplied Located by supplier to within 10m	A18SW (NW)	513	2	358340 172260
48	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	Scottish Widows Limited Sw/053/0002/009 2 Floating Harbour - Bristol Harbourside Environment Agency, South West Region Private Water Supply: Heat Pump Water may be abstracted from a single point Surface Not Supplied Not Supplied Not Supplied O1 April 31 March 26 h June 2018 Not Supplied Manually corrected supplier location	A17SE (NW)	625	2	358200 172300

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
48	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	Scottish Widows Limited Sw/053/0002/009 2 Floating Harbour - Bristol Harbourside Environment Agency, South West Region Private Water Supply: Heat Pump Water may be abstracted from a single point Surface Not Supplied Not Supplied Not Supplied 101 April 31 March 26 h June 2018 Not Supplied Located by supplier to within 10m	A17SE (NW)	646	2	358179 172309
48	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	Scottish Widows Limited Sw/053/0002/009 1 Floating Harbour - Bristol Harbourside Environment Agency, South West Region Private Water Supply: Heat Pump Water may be abstracted from a single point Surface Not Supplied Not Supplied Not Supplied O1 April 31 March 11 h January 2018 Not Supplied Located by supplier to within 10m	A17SE (NW)	646	2	358179 172309
48	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	Clerical Medical Investment Group Ltd 17/53/001/S/466 103 Floating Harbour - Bristol Harbourside Environment Agency, South West Region Other Industrial/Commercial/Public Services: Non-Evaporative Cooling Water may be abstracted from a single point Surface Not Supplied Not Supplied Not Supplied Not Supplied 01 April 31 March 31st August 2007 Not Supplied Located by supplier to within 10m	A17SE (NW)	646	2	358180 172310
48	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	Clerical Medical Investment Group Ltd 17/53/001/S/466 103 Floating Harbour - Bristol Harbourside Environment Agency, South West Region Other Industrial/Commercial/Public Services: General Use (Low Loss) Water may be abstracted from a single point Surface Not Supplied Not Supplied Not Supplied Not Supplied 101 April 31 March 31st August 2007 Not Supplied Located by supplier to within 10m	A17SE (NW)	646	2	358180 172310

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
48	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised End: Permit Start Date: Permit End Date:	Crest Nicholson (Sw) Ltd 17/53/001/S/466 102 Floating Harbour - Bristol Harbourside Environment Agency, South West Region Other Industrial/Commercial/Public Services: General Use (Low Loss) Water may be abstracted from a single point Surface Not Supplied Not Supplied Not Supplied Not Supplied 101 April 31 March 1st April 2006 Not Supplied	A17SE (NW)	646	2	358180 172310
48	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised End: Permit Start Date: Permit End Date:	Crest Nicholson (Sw) Ltd 17/53/001/S/466 102 Floating Harbour - Bristol Harbourside Environment Agency, South West Region Other Industrial/Commercial/Public Services: Non-Evaporative Cooling Water may be abstracted from a single point Surface Not Supplied Not Supplied Not Supplied Not Supplied 101 April 31 March 1st April 2006 Not Supplied Located by supplier to within 10m	A17SE (NW)	646	2	358180 172310
48	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	Crest Nicholson (Sw) Ltd 17/53/001/S/466 101 Floating Harbour - Bristol Harbourside Environment Agency, South West Region Other Industrial/Commercial/Public Services: General Use (Low Loss) Water may be abstracted from a single point Surface Not Supplied Not Supplied Not Supplied Not Supplied 101 April 31 March 16 h March 2004 Not Supplied Located by supplier to within 10m	A17SE (NW)	646	2	358180 172310
48	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	Crest Nicholson (Sw) Ltd 17/53/001/S/466 101 Floating Harbour - Bristol Harbourside Environment Agency, South West Region Other Industrial/Commercial/Public Services: Non-Evaporative Cooling Water may be abstracted from a single point Surface Not Supplied Not Supplied Not Supplied Not Supplied 101 April 31 March 16 h March 2004 Not Supplied Located by supplier to within 10m	A17SE (NW)	646	2	358180 172310

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
49	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	Bristol City Council 175301S391 Not Supplied Redcliff Wharf, Redcliffe, BRISTOL, Somerset Environment Agency, South West Region Refuge Tips (Not Known) Not Supplied Tidal 20 5318 Expired: 04-Aug-1992; Water Supply - Other; Floating Harbour Not Supplied Not Supplied Not Supplied Not Supplied Not Supplied Not Supplied Not Supplied Located by supplier to within 100m	A19SW (NE)	710	2	359000 172400
50	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	The Blue Reef Leisure Company Limited 17/53/001/S/458 102 Floating Harbour River Avon Environment Agency, South West Region Construction: Non-Evaporative Cooling Water may be abstracted from a single point Surface Not Supplied Not Supplied Not Supplied Not Supplied 101 April 31 March 23rd March 2009 Not Supplied Located by supplier to within 10m	A18NW (N)	799	2	358530 172610
50	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	The Blue Reef Leisure Company Limited 17/53/001/S/458 102 Floating Harbour River Avon Environment Agency, South West Region Construction: General Use (Low Loss) Water may be abstracted from a single point Surface Not Supplied Not Supplied Not Supplied 01 April 31 March 23rd March 2009 Not Supplied Located by supplier to within 10m	A18NW (N)	799	2	358530 172610
50	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	At-Bristol Limited 17/53/001/S/458 101 Floating Harbour River Avon Environment Agency, South West Region Construction: General Use (Low Loss) Water may be abstracted from a single point Surface Not Supplied Not Supplied Not Supplied O1 April 31 March 1st July 2000 Not Supplied Located by supplier to within 10m	A18NW (N)	799	2	358530 172610

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
50	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	At-Bristol Limited 17/53/001/S/458 101 Floating Harbour River Avon Environment Agency, South West Region Construction: Non-Evaporative Cooling Water may be abstracted from a single point Surface Not Supplied Not Supplied Not Supplied O1 April 31 March 1st July 2000 Not Supplied Located by supplier to within 10m	A18NW (N)	799	2	358530 172610
50	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	Bristol 2000 17/53/001/S/458 100 Floating Harbour River Avon Environment Agency, South West Region Construction: General Use (Low Loss) Water may be abstracted from a single point Surface Not Supplied Not Supplied Not Supplied Not Supplied 101 April 31 March 25 h May 1999 Not Supplied Located by supplier to within 10m	A18NW (N)	799	2	358530 172610
50	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	Bristol 2000 17/53/001/S/458 100 Floating Harbour River Avon Environment Agency, South West Region Construction: Non-Evaporative Cooling Water may be abstracted from a single point Surface Not Supplied Not Supplied Not Supplied O1 April 31 March 25 h May 1999 Not Supplied Located by supplier to within 10m	A18NW (N)	799	2	358530 172610
51	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	Serviced Apartment Company Ltd 17/53/001/S/472 101 Floating Harbour Bristol- Serving Purifier Hse & Building 1 Environment Agency, South West Region Other Industrial/Commercial/Public Services: Non-Evaporative Cooling Water may be abstracted from a single point Surface Not Supplied Not Supplied Not Supplied N/A 01 April 31 March 7th January 2008 Not Supplied Located by supplier to within 10m	A17SE (NW)	912	2	357940 172450

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	The Trustees Of Ss Great Britain Trust 17/53/001/S/468/R01 1 Bristol Floating Harbour - Dock Feed Environment Agency, South West Region Holiday sites, Camp Sites & Tourist Attractions: Lake & Pond Throughflow Water may be abstracted from a single point Surface Not Supplied Not Supplied Not Supplied Not Supplied 11 April 12 March 13 March 15 April 2017 Not Supplied Located by supplier to within 10m	A17SW (NW)	1063	2	357738 172445
	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	The Trustees Of Ss Great Britain Trust 17/53/001/S/468/R01 1 Bristol Floating Harbour - Dock Feed Environment Agency, South West Region Holiday Sites, Camp Sites & Tourist Attractions: Non-Evaporative Cooling Water may be abstracted from a single point Surface Not Supplied Not Supplied Not Supplied Not Supplied 13 April 31 March 1st April 2017 Not Supplied Located by supplier to within 10m	A17SW (NW)	1063	2	357738 172445
	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	Ss Great Britain Trust 17/53/001/S/468 101 Bristol Floating Harbour - Dock Feed Environment Agency, South West Region Holiday sites, Camp Sites & Tourist Attractions: Lake & Pond Throughflow Water may be abstracted from a single point Surface Not Supplied Not Supplied Not Supplied Not Supplied 01 April 31 March 21st September 2005 Not Supplied Located by supplier to within 10m	A17SW (NW)	1066	2	357730 172440
	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	Ss Great Britain Trust 17/53/001/S/468 101 Bristol Floating Harbour - Dock Feed Environment Agency, South West Region Holiday Sites, Camp Sites & Tourist Attractions: Non-Evaporative Cooling Water may be abstracted from a single point Surface Not Supplied Not Supplied Not Supplied O1 April 31 March 21st September 2005 Not Supplied Located by supplier to within 10m	A17SW (NW)	1066	2	357730 172440

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	J G Bristol Ltd 17/53/001/G/102 103 Borehole Bath Street Bristol Environment Agency, South West Region Breweries/Wine: Non-Evaporative Cooling Water may be abstracted from a single point Groundwater Not Supplied Not Supplied Not Supplied Not Supplied 10 April 31 March 17 h October 2003 Not Supplied Located by supplier to within 10m	A24SW (NE)	1288	2	359120 172990
	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	J G Bristol Ltd 17/53/001/G/102 102 Borehole Bath Street Bristol Environment Agency, South West Region Breweries/Wine: Non-Evaporative Cooling Water may be abstracted from a single point Groundwater Not Supplied Not Supplied Not Supplied Not Supplied 101 April 31 March 19 h April 2002 Not Supplied Located by supplier to within 10m	A24SW (NE)	1288	2	359120 172990
	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	Scottish & Newcastle Plc 17/53/001/G/102 101 Borehole Bath Street Bristol Environment Agency, South West Region Breweries/Wine: Non-Evaporative Cooling Water may be abstracted from a single point Groundwater Not Supplied Not Supplied Not Supplied 101 April 31 March 1st October 1999 Not Supplied Located by supplier to within 10m	A24SW (NE)	1288	2	359120 172990
	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	Scottish & Newcastle Plc 17/53/001/S/102 101 Floating Harbour Bath Street Bristol Environment Agency, South West Region Breweries/Wine: Non-Evaporative Cooling Water may be abstracted from a single point Tidal Not Supplied Not Supplied Floating Harbour 01 April 31 March 1st October 1999 Not Supplied Located by supplier to within 10m	A24SW (NE)	1301	2	359130 173000

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator:	Jacobs Wells Spring Water	A17NW	1331	2	357700
	Licence Number: Permit Version: Location:	17/53/001/S/428 100 Jacobs Well	(NW)	1001	2	172800
	Authority: Abstraction: Abstraction Type: Source: Daily Rate (m3):	Environment Agency, South West Region Food And Drink: Water Bottling Water may be abstracted from a single point Surface Not Supplied				
	Yearly Rate (m3): Details: Authorised Start: Authorised End:	Not Supplied Jacobs Well 01 April 31 March				
	Permit Start Date: Permit End Date: Positional Accuracy:	19 h January 1989 Not Supplied Located by supplier to within 100m				
	Water Abstractions					
	Operator: Licence Number: Permit Version: Location: Authority:	Antomarst Limited Sw/053/0002/007 2 Jacobs Well Environment Agency, South West Region	A22SW (NW)	1381	2	357697 172864
	Abstraction: Abstraction Type: Source: Daily Rate (m3):	Food And Drink: Water Bottling Water may be abstracted from a single point Groundwater Not Supplied				
	Yearly Rate (m3): Details: Authorised Start: Authorised End:	Not Supplied Jacobs Well, Jacobs Wells Road, Bristol 01 April 31 March				
	Permit Start Date: Permit End Date: Positional Accuracy:	1st July 2015 Not Supplied Located by supplier to within 10m				
	Water Abstractions					
	Operator: Licence Number: Permit Version: Location:	Jacobs Wells Water Limited Sw/053/0002/007 1 Jacobs Well	A22SW (NW)	1381	2	357697 172864
	Authority: Abstraction: Abstraction Type: Source:	Environment Agency, South West Region Food And Drink: Water Bottling Water may be abstracted from a single point Groundwater				
	Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start:	Not Supplied Not Supplied Jacobs Well, Jacobs Wells Road, Bristol 01 April				
	Authorised End: Permit Start Date: Permit End Date:	31 March 10 h September 2014 Not Supplied Located by supplier to within 10m				
	Water Abstractions	· · · ·				
	Operator: Licence Number: Permit Version:	Jacobs Wells Water Limited Sw/053/0002/002 2	A22SW (NW)	1381	2	357697 172864
	Location: Authority: Abstraction: Abstraction Type: Source:	Jacobs Well Environment Agency, South West Region Food And Drink: Water Bottling Water may be abstracted from a single point Groundwater				
	Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start:	Not Supplied Not Supplied Not Supplied 01 April				
	Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	31 March 1st April 2013 Not Supplied Located by supplier to within 10m				

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Map ID		Details		Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator:	Chk Holdings	A22SW	1381	2	357697
	Licence Number: Permit Version: Location: Authority: Abstraction: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start:	Sw/053/0002/002 1 Jacobs Well Environment Agency, South West Region Food And Drink: Water Bottling Water may be abstracted from a single point Groundwater Not Supplied Not Supplied Not Supplied 01 April	(NW)	1301	2	172864
	Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	31 March 31st March 2011 Not Supplied Located by supplier to within 10m				
	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3):	Eugenia Springs Limited 17/53/001/S/428 101 Jacobs Well Environment Agency, South West Region Food And Drink: Water Bottling Water may be abstracted from a single point Surface Not Supplied Not Supplied Not Supplied	A22SW (NW)	1382	2	357690 172860
	Details: Authorised Start: Authorised End: Permit Start Date: Permit End Date:	Not Supplied 01 April 31 March 1st April 2001 Not Supplied Located by supplier to within 10m				
	Operator: Licence Number: Permit Version: Location: Authority: Abstraction: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	Dolan Corrugated Containers 175301S082 Not Supplied Avonside Paper Mills, St Philips, BRISTOL, Somerset, BS2 Environment Agency, South West Region Paper Making Not Supplied Tidal 327 90922 Expired: 17-Jun-1993; Floating Harbour Not Supplied Not Supplied Not Supplied Not Supplied Not Supplied Not Supplied Not Supplied Not Supplied Located by supplier to within 100m	A20NW (NE)	1432	2	359800 172600
	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised End: Permit End Date: Permit End Date: Positional Acquiracy:	Castlemore (Temple Quay 2) Ltd 17/53/001/S/470 102 Floating Harbour Bristol- Point B Serving Building Nd3 Environment Agency, South West Region Other Industrial/Commercial/Public Services: Non-Evaporative Cooling Water may be abstracted from a single point Surface Not Supplied Not Supplied Not Supplied N/A 01 April 31 March 11 h November 2007 Not Supplied Located by supplier to within 10m	A20NW (NE)	1437	2	359752 172677

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised End: Permit Start Date: Permit End Date:	Castlemore Securities Ltd 17/53/001/S/470 101 Floating Harbour Bristol- Point B Serving Building Nd3 Environment Agency, South West Region Other Industrial/Commercial/Public Services: Non-Evaporative Cooling Water may be abstracted from a single point Surface Not Supplied Not Supplied N/A 01 April 31 March 10 h November 2007 Not Supplied	A20NW (NE)	1437	2	359752 172677
	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised End: Permit Start Date: Permit End Date:	Castlemore (Temple Quay 2) Ltd 17/53/001/S/470 102 Floating Harbour Bristol- Point A Serving Building Nd3 Environment Agency, South West Region Other Industrial/Commercial/Public Services: Non-Evaporative Cooling Water may be abstracted from a single point Surface Not Supplied Not Supplied Not Supplied N/A 01 April 31 March 11 h November 2007 Not Supplied Located by supplier to within 10m	A20NW (NE)	1438	2	359754 172676
	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	Castlemore Securities Ltd 17/53/001/S/470 101 Floating Harbour Bristol- Point A Serving Building Nd3 Environment Agency, South West Region Other Industrial/Commercial/Public Services: Non-Evaporative Cooling Water may be abstracted from a single point Surface Not Supplied Not Supplied Not Supplied N/A 01 April 31 March 10 h November 2007 Not Supplied Located by supplier to within 10m	A20NW (NE)	1438	2	359754 172676
	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	The National Farmers Union Mutual Insurance Society Limited 17/53/001/S/471/R01 1 Floating Harbour Bristol- Point B Serving Building Nd4 Environment Agency, South West Region Other Industrial/Commercial/Public Services: Heat Pump Water may be abstracted from a single point Surface Not Supplied Not Supplied The Floating Harbour, Bristol 01 April 31 March 26 h May 2017 Not Supplied Located by supplier to within 10m	A20NW (NE)	1439	2	359756 172674

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised End: Permit Start Date: Permit End Date:	The National Farmers Union Mutual Insurance Society Limited 17/53/001/S/471 104 Floating Harbour Bristol- Point B Serving Building Nd4 Environment Agency, South West Region Other Industrial/Commercial/Public Services: Heat Pump Water may be abstracted from a single point Surface Not Supplied Not Supplied Not Supplied The Floating Harbour, Bristol 01 April 31 March 6th March 2014 Not Supplied	A20NW (NE)	1439	2	359756 172674
	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date:	Located by supplier to within 10m The National Farmers Union Mutual Insurance Society Limited 17/53/001/S/471 103 Floating Harbour Bristol- Point B Serving Building Nd4 Environment Agency, South West Region Other Industrial/Commercial/Public Services: Non-Evaporative Cooling Water may be abstracted from a single point Surface Not Supplied Not Supplied Not Supplied N/A 01 April 31 March 14 h March 2011 Not Supplied Located by supplier to within 10m	A20NW (NE)	1439	2	359756 172674
	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	Castlemore (Temple Quay 2) Limited 17/53/001/S/471 102 Floating Harbour Bristol- Point B Serving Building Nd4 Environment Agency, South West Region Other Industrial/Commercial/Public Services: Non-Evaporative Cooling Water may be abstracted from a single point Surface Not Supplied Not Supplied N/A 01 April 31 March 11 h November 2007 Not Supplied Located by supplier to within 10m	A20NW (NE)	1439	2	359756 172674
	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	Castlemore Securities Ltd 17/53/001/S/471 101 Floating Harbour Bristol- Point B Serving Building Nd4 Environment Agency, South West Region Other Industrial/Commercial/Public Services: Non-Evaporative Cooling Water may be abstracted from a single point Surface Not Supplied Not Supplied N/A 01 April 31 March 10 h November 2007 Not Supplied Located by supplier to within 10m	A20NW (NE)	1439	2	359756 172674

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	The National Farmers Union Mutual Insurance Society Limited 17/53/001/S/471/R01 1 Floating Harbour Bristol- Point A Serving Building Nd4 Environment Agency, South West Region Other Industrial/Commercial/Public Services: Heat Pump Water may be abstracted from a single point Surface Not Supplied Not Supplied The Floating Harbour, Bristol 01 April 31 March 26 h May 2017 Not Supplied Located by supplier to within 10m	A20NW (NE)	1440	2	359758 172673
	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	The National Farmers Union Mutual Insurance Society Limited 17/53/001/S/471 104 Floating Harbour Bristol- Point A Serving Building Nd4 Environment Agency, South West Region Other Industrial/Commercial/Public Services: Heat Pump Water may be abstracted from a single point Surface Not Supplied Not Supplied Not Supplied The Floating Harbour, Bristol 01 April 31 March 6th March 2014 Not Supplied Located by supplier to within 10m	A20NW (NE)	1440	2	359758 172673
	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	The National Farmers Union Mutual Insurance Society Limited 17/53/001/S/471 103 Floating Harbour Bristol- Point A Serving Building Nd4 Environment Agency, South West Region Other Industrial/Commercial/Public Services: Non-Evaporative Cooling Water may be abstracted from a single point Surface Not Supplied Not Supplied Not Supplied N/A 01 April 31 March 14 h March 2011 Not Supplied Located by supplier to within 10m	A20NW (NE)	1440	2	359758 172673
	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	Castlemore (Temple Quay 2) Limited 17/53/001/S/471 102 Floating Harbour Bristol- Point A Serving Building Nd4 Environment Agency, South West Region Other Industrial/Commercial/Public Services: Non-Evaporative Cooling Water may be abstracted from a single point Surface Not Supplied Not Supplied N/A 01 April 31 March 11 h November 2007 Not Supplied Located by supplier to within 10m	A20NW (NE)	1440	2	359758 172673

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions		4.004.04	4440	0	250750
	Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised End: Permit Start Date:	Castlemore Securities Ltd 17/53/001/S/471 101 Floating Harbour Bristol- Point A Serving Building Nd4 Environment Agency, South West Region Other Industrial/Commercial/Public Services: Non-Evaporative Cooling Water may be abstracted from a single point Surface Not Supplied Not Supplied N/A 01 April 31 March 10 h November 2007	A20NW (NE)	1440	2	359758 172673
	Permit End Date: Positional Accuracy:	Not Supplied Located by supplier to within 10m				
	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	Dolan Corrugated Containers 175301G082 Not Supplied Avonside Paper Mills, St Philips, BRISTOL, Somerset, BS2 Environment Agency, South West Region Paper Making Not Supplied Borehole 327 90922 Upper Sandstone; Process Not Supplied Not Supplied Not Supplied Not Supplied Not Supplied Not Supplied Not Supplied Not Supplied Not Supplied Located by supplier to within 100m	A20NW (NE)	1490	2	359800 172700
	Water Abstractions		4001114	4544		
	,	Chanson Foods Sw/053/0002/001/R01 1 Abstraction Point A - Feeder Canal, Floating Harbour Environment Agency, South West Region Other Industrial/Commercial/Public Services: Non-Evaporative Cooling Water may be abstracted from a single point Surface Not Supplied Not Supplied Not Supplied Not Supplied 101 April 31 March 1st April 2017 Not Supplied Located by supplier to within 10m	A20NW (NE)	1511	2	359927 172544
	Water Abstractions		A 00 A 11 A 1	4544	0	250007
	Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised End: Permit End Date: Permit End Date: Permit End Date:	Chanson Foods Sw/053/0002/001 1 Abstraction Point A - Feeder Canal, Floating Harbour Environment Agency, South West Region Other Industrial/Commercial/Public Services: Non-Evaporative Cooling Water may be abstracted from a single point Surface Not Supplied Not Supplied Not Supplied O1 April 31 March 11 h April 2011 Not Supplied Located by supplier to within 10m	A20NW (NE)	1511	2	359927 172544

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date:	Rheemco Ltd 175301S003 Not Supplied st Vincent's Works, Silverthorne Lane, BRISTOL, BS2 0QF Environment Agency, South West Region Metal Goods Not Supplied Tidal 91 22730 Not Supplied Not Supplied Not Supplied Not Supplied Not Supplied Not Supplied Not Supplied Not Supplied Not Supplied Not Supplied Not Supplied Not Supplied	A20SE (E)	1700	2	360200 172400
	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised End: Permit Start Date: Permit End Date:	Located by supplier to within 100m Mr C Mant 175301S441 Not Supplied Location Description Not Available Environment Agency, South West Region Industrial Processing (Miscellaneous) Not Supplied Canal 1 260 Feeder Canal Not Supplied Not Supplied Not Supplied Not Supplied Not Supplied Not Supplied Located by supplier to within 100m	A20NE (NE)	1737	2	360200 172500
	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	Rheemco Ltd 175301S003 Not Supplied Location Description Not Available Environment Agency, South West Region Metal Goods Not Supplied Tidal 91 22730 Feeder Canal Not Supplied Not Supplied Not Supplied Not Supplied Not Supplied Not Supplied Not Supplied Located by supplier to within 100m	(E)	1792	2	360300 172395
	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	Bristol Rubbish Clearance 1994 Ltd 17/53/001/S/456 100 River Avon At Albert Quay Environment Agency, South West Region Other Industrial/Commercial/Public Services: General Use (Medium Loss) Water may be abstracted from a single point Tidal 0 0 River Avon 01 April 31 March 24 h March 1998 Not Supplied Located by supplier to within 10m	(E)	1823	2	360430 171730

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions					
	Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Positional Accuracy:	Trib Of Western Avon At Townsend Farm 13/43/021/S/131 100 River Avon At Albert Quay Environment Agency, South West Region Other Industrial/Commercial/Public Services: General Use (Medium Loss) Water may be abstracted from a single point Tidal Not Supplied Not Supplied Not Supplied O1 April 31 March 24 h March 1998 Not Supplied Located by supplier to within 10m	(E)	1823	2	360430 171730
	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	Neptune Plating Ltd 17/53/001/G/454 100 Barton Manor Environment Agency, South West Region Metal: Process Water Water may be abstracted from a single point Groundwater Not Supplied Not Supplied Lower Coal Series 01 April 31 March 7th December 1995 Not Supplied Located by supplier to within 100m	A25SE (NE)	1910	2	360100 173000
	Groundwater Vulne Soil Classification: Map Sheet: Scale:	Soils of High Leaching Potential (U) - Soil information for restored mineral workings and urban areas is based on fewer observations than elsewhere. A worst case vulnerability classification (H) assumed, until proved otherwise Sheet 37 Southern Cotswolds 1:100,000	A13SW (E)	0	2	358599 171796
	Drift Deposits Drift Deposit: Map Sheet: Scale:	Low permeability drift deposits occuring at the surface and overlying Major and Minor Aquifers are head, clay-with-flints, brickearth, peat, river terrace deposits and marine and estuarine alluvium Sheet 37 Southern Cotswolds 1:100,000		0	2	358599 171796
	Bedrock Aquifer De Aquifer Designa ion:	esignations Secondary Aquifer - A	A13SW (E)	0	1	358599 171796
	Superficial Aquifer Aquifer Designa ion:	Designations Unproductive Strata	A13SW (E)	0	1	358599 171796
	Extreme Flooding for Type: Flood Plain Type: Boundary Accuracy:	rom Rivers or Sea without Defences Extent of Extreme Flooding from Rivers or Sea without Defences Fluvial Models As Supplied	A13SW (E)	0	2	358599 171796
	Extreme Flooding for Type: Flood Plain Type: Boundary Accuracy:	rom Rivers or Sea without Defences Extent of Extreme Flooding from Rivers or Sea without Defences Fluvial/Tidal Models As Supplied	A13NW (W)	1	2	358588 171798
	Extreme Flooding for Type: Flood Plain Type: Boundary Accuracy:	rom Rivers or Sea without Defences Extent of Extreme Flooding from Rivers or Sea without Defences Fluvial Models As Supplied	A13SE (S)	60	2	358615 171722
	, ,	rom Rivers or Sea without Defences Extent of Extreme Flooding from Rivers or Sea without Defences Fluvial Models	A13SE (SE)	150	2	358735 171703
		rom Rivers or Sea without Defences Extent of Extreme Flooding from Rivers or Sea without Defences Fluvial Models	A13SE (SE)	154	2	358697 171657

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lap ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Extreme Flooding fr	om Rivers or Sea without Defences				
	Type: Flood Plain Type: Boundary Accuracy:	Extent of Extreme Flooding from Rivers or Sea without Defences Fluvial Models As Supplied	A13SE (SE)	164	2	358730 171673
	Extreme Flooding fr	om Rivers or Sea without Defences				
	Type: Flood Plain Type: Boundary Accuracy:	Extent of Extreme Flooding from Rivers or Sea without Defences Fluvial Models As Supplied	A13SE (SE)	183	2	358720 171637
	Extreme Flooding fr	om Rivers or Sea without Defences Extent of Extreme Flooding from Rivers or Sea without Defences	A13NW	194	2	358562
	Flood Plain Type: Boundary Accuracy:	Tidal Models As Supplied	(N)			172005
	Extreme Flooding fr	om Rivers or Sea without Defences				
	Type: Flood Plain Type: Boundary Accuracy:	Extent of Extreme Flooding from Rivers or Sea without Defences Fluvial/Tidal Models As Supplied	A13NW (N)	199	2	358562 172010
	Extreme Flooding fr	om Rivers or Sea without Defences				
	Type: Flood Plain Type: Boundary Accuracy:	Extent of Extreme Flooding from Rivers or Sea without Defences Tidal Models As Supplied	A13NE (N)	205	2	358640 17201
	Extreme Flooding fr	om Rivers or Sea without Defences				
	Type: Flood Plain Type: Boundary Accuracy:	Extent of Extreme Flooding from Rivers or Sea without Defences Tidal Models As Supplied	A13NE (N)	212	2	35867 17201
		om Rivers or Sea without Defences				
	Type: Flood Plain Type: Boundary Accuracy:	Extent of Extreme Flooding from Rivers or Sea without Defences Tidal Models	A13NW (NW)	249	2	35845 17201
		om Rivers or Sea without Defences				
	Type: Flood Plain Type: Boundary Accuracy:	Extent of Extreme Flooding from Rivers or Sea without Defences Tidal Models	A13NW (N)	250	2	358560 17206
	Flooding from River	s or Sea without Defences				
	Type: Flood Plain Type: Boundary Accuracy:	Extent of Flooding from Rivers or Sea without Defences Tidal Models As Supplied	A13SE (SE)	16	2	358620 17177
		rs or Sea without Defences				
	Type: Flood Plain Type: Boundary Accuracy:	Extent of Flooding from Rivers or Sea without Defences Fluvial/Tidal Models	A13SE (SE)	186	2	358714 171629
		rs or Sea without Defences				
	Type: Flood Plain Type: Boundary Accuracy:	Extent of Flooding from Rivers or Sea without Defences Tidal Models As Supplied	A13SE (SE)	191	2	35871 17162
		's or Sea without Defences				
	Type: Flood Plain Type: Boundary Accuracy:	Extent of Flooding from Rivers or Sea without Defences Tidal Models As Supplied	A13SE (SE)	193	2	358720 17162
	Flooding from River	's or Sea without Defences				
	Type: Flood Plain Type: Boundary Accuracy:	Extent of Flooding from Rivers or Sea without Defences Tidal Models As Supplied	A13NW (N)	194	2	35856 17200
	, ,	rs or Sea without Defences				
	Type: Flood Plain Type: Boundary Accuracy:	Extent of Flooding from Rivers or Sea without Defences Fluvial/Tidal Models	A13NW (N)	199	2	358562 172010
	Flooding from River	s or Sea without Defences				
	Type: Flood Plain Type: Boundary Accuracy:	Extent of Flooding from Rivers or Sea without Defences Tidal Models As Supplied	A13SE (SE)	205	2	35873 17162
		rs or Sea without Defences				
	Type: Flood Plain Type: Boundary Accuracy:	Extent of Flooding from Rivers or Sea without Defences Tidal Models	A13SE (SE)	205	2	35873 ⁻ 17162 ⁻

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Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13NE (N)	205	2	358640 172012
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13NE (N)	212	2	358670 172012
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SE (SE)	213	2	358747 171621
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SE (SE)	220	2	358755 171618
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SE (SE)	227	2	358765 171618
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SE (SE)	234	2	358772 171616
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SE (SE)	241	2	358782 171615
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13NW (NW)	249	2	358450 172017
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13NW (N)	250	2	358560 172061
	Areas Benefiting from Flood Defences None				
	Flood Water Storage Areas None Flood Defences				
52	None OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 522.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: The Malago Catchment Name: Avon Bristol Primacy: 1	A13NE (NE)	125	4	358665 171920
53	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 79.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: The Malago Catchment Name: Avon Bristol Primacy: 1	A13SE (SE)	187	4	358714 171627
54	OS Water Network Lines Watercourse Form: Tidal river Watercourse Length: 23 5 Watercourse Level: On ground surface Permanent: True Watercourse Name: True Malago Catchment Name: Avon Bristol Primacy: 1	A13NE (N)	216	4	358663 172018

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Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
55	OS Water Network Lines Watercourse Form: Tidal river Watercourse Level: On ground surface Permanent: True Watercourse Name: River Avon Catchment Name: Avon Bristol Primacy: 1	A13NW (N)	231	4	358558 172041
56	OS Water Network Lines Watercourse Form: Tidal river Watercourse Length: 394.7 Watercourse Level: On ground surface True Watercourse Name: River Avon Catchment Name: Avon Bristol Primacy: 1	A13NE (N)	236	4	358656 172040
57	OS Water Network Lines Watercourse Form: Tidal river Watercourse Length: 53.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Avon (Tetbury Branch) Catchment Name: Avon Bristol Primacy: 1	A13NE (N)	236	4	358656 172040
58	OS Water Network Lines Watercourse Form: Tidal river Watercourse Length: 8.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Not Supplied Primacy: 2	A13NW (N)	237	4	358585 172050
59	OS Water Network Lines Watercourse Form: Tidal river Watercourse Length: 33.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Avon Catchment Name: Avon Bristol Primacy: 1	A13NW (N)	237	4	358585 172050
60	OS Water Network Lines Watercourse Form: Foreshore Watercourse Length: 6.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Not Supplied Primacy: 2	A13NW (N)	246	4	358585 172059
61	OS Water Network Lines Watercourse Form: Tidal river Watercourse Length: 48.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Avon Bristol Primacy: 2	A13NE (N)	248	4	358617 172060
62	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 14.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: The Malago Catchment Name: Avon Bristol Primacy: 1	A13SE (SE)	250	4	358784 171605
63	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1130.8 Watercourse Level: Underground True Watercourse Name: Not Supplied Catchment Name: Avon Bristol Primacy: 2	A13NW (N)	252	4	358584 172065

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Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
64	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 102.4 Watercourse Level: On ground surface True Watercourse Name: The Malago Catchment Name: Avon Bristol Primacy: 1	A13SE (SE)	258	4	358781 171591
65	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 30 2 Watercourse Level: On ground surface True Watercourse Name: Not Supplied Catchment Name: Avon Bristol Primacy: 2	A13NE (N)	287	4	358648 172095
66	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 182.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Avon Bristol Primacy: 2	A13NE (N)	310	4	358672 172113
67	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 123.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: The Malago Catchment Name: Avon Bristol Primacy: 1	A13SE (SE)	332	4	358765 171490
68	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1245.2 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Avon Bristol Primacy: 2	A13SW (SW)	391	4	358283 171541
69	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 97 2 Watercourse Level: On ground surface Permanent: True Watercourse Name: The Malago Catchment Name: Avon Bristol Primacy: 1	A8NE (S)	403	4	358699 171389
70	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 32 9 Watercourse Level: Underground Permanent: True Watercourse Name: The Malago Catchment Name: Avon Bristol Primacy: 1	A8NE (S)	456	4	358629 171326
71	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 76 5 Watercourse Level: On ground surface True Watercourse Name: Not Supplied Catchment Name: Avon Bristol Primacy: 2	A18SE (NE)	470	4	358792 172241
72	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1352.1 Watercourse Level: On ground surface True Watercourse Name: Floating Harbour Catchment Name: Avon Bristol Primacy: 1	A18SW (NW)	472	4	358380 172234



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
73	OS Water Network Lines Watercourse Form: Tidal river Watercourse Length: 393.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Avon Catchment Name: Avon Bristol Primacy: 1	A14NW (NE)	478	4	359040 172009
74	OS Water Network Lines Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: The Malago Catchment Name: Avon Bristol Primacy: 1	A8NE (S)	482	4	358651 171302
75	OS Water Network Lines Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Floating Harbour Catchment Name: Avon Bristol Primacy: 1	A18SE (N)	517	4	358606 172330
76	OS Water Network Lines Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Avon Bristol Primacy: 1	A18SW (N)	519	4	358533 172329
77	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 121.9 Watercourse Level: On ground surface True Watercourse Name: Floating Harbour Catchment Name: Avon Bristol Primacy: 2	A18SE (N)	539	4	358699 172342
78	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 23 0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Avon Bristol Primacy: 2	A18SE (N)	542	4	358798 172317
79	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 191.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Floating Harbour Catchment Name: Avon Bristol Primacy: 1	A18SE (N)	548	4	358677 172355
80	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 33.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Floating Harbour Catchment Name: Avon Bristol Primacy: 2	A18SE (N)	562	4	358794 172339
81	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 137.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Floating Harbour Catchment Name: Avon Bristol Primacy: 1	A18SE (N)	582	4	358825 172349



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
82	OS Water Network Lines Watercourse Form: Tidal river Watercourse Level: 5.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Avon Bristol Primacy: 2	A12NE (NW)	682	4	357981 172117
83	OS Water Network Lines Watercourse Form: Tidal river Watercourse Length: 12 8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Avon Bristol Primacy: 2	A12NE (NW)	685	4	357981 172122
84	OS Water Network Lines Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Avon Bristol Primacy: 1	A18SE (NE)	687	4	358934 172413
85	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 55 2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Floating Harbour Catchment Name: Avon Bristol Primacy: 1	A18SE (NE)	687	4	358934 172413
86	OS Water Network Lines Watercourse Form: Tidal river Watercourse Length: 1096.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Avon Catchment Name: Avon Bristol Primacy: 1	A17SE (NW)	692	4	357979 172135
87	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 164.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Avon Bristol Primacy: 2	A18NW (N)	724	4	358553 172536
88	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 131.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Avon Bristol Primacy: 1	A18NW (N)	724	4	358553 172536
89	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 66 3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Floating Harbour Catchment Name: Avon Bristol Primacy: 2	A19SW (NE)	737	4	358960 172456
90	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 33.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Floating Harbour Catchment Name: Avon Bristol Primacy: 1	A19SW (NE)	737	4	358960 172456



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
91	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 63 2 Watercourse Level: On ground surface Permanent: True Watercourse Name: The Malago Catchment Name: Avon Bristol Primacy: 1	A8SW (S)	739	4	358472 171053
92	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 721.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Floating Harbour Catchment Name: Avon Bristol Primacy: 1	A19NW (NE)	762	4	358957 172485
93	OS Water Network Lines Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: The Malago Catchment Name: Avon Bristol Primacy: 1	A8SW (S)	798	4	358485 170992
94	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1248.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: The Malago Catchment Name: Avon Bristol Primacy: 1	A8SW (S)	828	4	358495 170961
95	OS Water Network Lines Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Avon Bristol Primacy: 1	A8SW (S)	828	4	358497 170960
96	OS Water Network Lines Watercourse Form: Tidal river Watercourse Length: 310.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Avon Catchment Name: Avon Bristol Primacy: 1	A14NE (E)	832	4	359412 172017
97	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 58 0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Avon Bristol Primacy: 1	A18NW (N)	851	4	358562 172663
98	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 38.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Avon Bristol Primacy: 1	A18NW (N)	907	4	358567 172720
99	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 97 0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Avon Bristol Primacy: 2	A18NW (N)	907	4	358567 172720

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Agency & Hydrological

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
100	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 126.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Avon Bristol Primacy: 1	A8SE (S)	955	4	358620 170827
101	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 8.8 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Avon Bristol Primacy: 2	A23SW (N)	1000	4	358575 172813

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Licensed Waste Management Facilities (Locations)					
102	Licence Number: Location: Operator Name: Operator Location: Authority: Site Category: Licence Status: Issued: Last Modified: Expires: Suspended: Revoked: Surrendered: IPPC Reference:	27260 11 Whitehouse Place , Bedminster, Bristol, Avon, BS3 5AN Bradley R G Not Supplied Environment Agency - South West Region, Wessex Area End of Life Vehicles Revoked 11 h November 1997 Not Supplied Not Supplied Not Supplied Not Supplied Not Supplied Not Supplied Not Supplied Not Supplied Not Supplied Not Supplied Not Supplied Located by supplier to within 100m	A14SW (E)	598	2	359200 171700
103	Licence Number: Location: Operator Name: Operator Location: Authority: Site Category: Licence Status: Issued: Last Modified: Expires: Suspended: Revoked: Surrendered: IPPC Reference:	nagement Facilities (Locations) 27212 Land / Premises At, Farrs Lane, Prince Street, Bristol, Avon, BS1 4PZ Harris & Co Not Supplied Environment Agency - South West Region, Wessex Area Household, Commercial And Industrial Transfer Stations Issued 27 h September 1993 Not Supplied	A18NW (N)	677	2	358590 172490
104	Licence Number: Location: Operator Name: Operator Location: Authority: Site Category: Licence Status: Issued: Last Modified: Expires: Suspended: Revoked: Surrendered: IPPC Reference:	nagement Facilities (Locations) 27283 94-96 Cumberland Road , Bristol, Avon, BS1 6UG Geraghty J J Not Supplied Environment Agency - South West Region, Wessex Area Household, Commercial And Industrial Transfer Stations Surrendered 16 h October 1992 Not Supplied Not Supplied Not Supplied Not Supplied Not Supplied Not Supplied Not Supplied Not Supplied Not Supplied Not Supplied Not Supplied County Supplied Not Supplied Not Supplied Located by supplier to within 100m	A17SW (NW)	793	2	357900 172200
105	Licence Number: Location: Operator Name: Operator Location: Authority: Site Category: Licence Status: Issued: Last Modified: Expires: Suspended: Revoked: IPPC Reference:	nagement Facilities (Locations) 27277 Stenners Yard, St Johns Lane, Bedminster, Bristol, Avon, BS3 5AZ Abacus Bristol Ltd Not Supplied Environment Agency - South West Region, Wessex Area Household, Commercial And Industrial Transfer Stations Surrendered 8th December 1997 Not Supplied Not Supplied Not Supplied Not Supplied Not Supplied 23rd December 2005 Not Supplied Located by supplier to within 100m	A8SW (S)	987	2	358500 170800
	Local Authority Lan Name:	dfill Coverage Bristol City Unitary Authority - Has no landfill data to supply		0	5	358599 171796
106	Potentially Infilled L Bearing Ref: Use: Date of Mapping:	and (Non-Water) W Unknown Filled Ground (Pit, quarry etc) 1887	A13SW (W)	195	-	358406 171724
107	Potentially Infilled L Bearing Ref: Use: Date of Mapping:		A8NW (S)	482	-	358487 171312





Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
108	Potentially Infilled L Bearing Ref: Use: Date of Mapping:	.and (Non-Water) S Unknown Filled Ground (Pit, quarry etc) 1996	A8NW (S)	550	-	358570 171233
109	Potentially Infilled L Bearing Ref: Use: Date of Mapping:	and (Non-Water) S Unknown Filled Ground (Pit, quarry etc) 1996	A8SW (S)	802	-	358348 171018
110	Potentially Infilled L Use: Date of Mapping:	and (Water) Unknown Filled Ground (Pond, marsh, river, stream, dock etc) 1996	A8SW (S)	730	-	358485 171060
111	Potentially Infilled L Use: Date of Mapping:	and (Water) Unknown Filled Ground (Pond, marsh, river, stream, dock etc) 1920	A8SE (S)	853	-	358900 170980
112	Potentially Infilled L Use: Date of Mapping:	and (Water) Unknown Filled Ground (Pond, marsh, river, stream, dock etc) 1938	A8SE (S)	871	-	358773 170927
113	Potentially Infilled L Use: Date of Mapping:	and (Water) Unknown Filled Ground (Pond, marsh, river, stream, dock etc) 1996	A23SW (N)	999	-	358588 172812
114	Registered Waste T Licence Holder: Licence Reference: Site Location: Operator Location: Authority: Site Category: Max Input Rate: Waste Source Restrictions: Licence Status: Dated: Preceded By Licence: Superseded By Licence: Superseded By Licence: Positional Accuracy: Boundary Quality: Authorised Waste	Harris & Co	A18NE (N)	677	2	358600 172490
115	Registered Waste T Licence Holder: Licence Reference: Site Location: Operator Location: Authority: Site Category: Max Input Rate: Waste Source Restrictions: Licence Status: Dated: Preceded By Licence: Superseded By Licence: Positional Accuracy: Boundary Quality: Authorised Waste	Ocean Reprographics Ltd	A14NE (E)	698	2	359300 171890





Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Registered Waste T	ransfer Sites				
116	Licence Holder: Licence Reference: Site Location: Operator Location: Authority:	Stenners Yard, St Johns Lane, Bedminster, BRISTOL, Avon, BS3 5AZ 812 Whitchurch Lane, Whitchurch, BRISTOL, Avon, BS14 0RJ Environment Agency - South West Region, North Wessex Area	A8SW (S)	933	2	358550 170850
	Site Category: Max Input Rate: Waste Source Restrictions: Licence Status: Dated:	Transfer Small (Equal to or greater than 10,000 and less than 25,000 tonnes per year) No known restriction on source of waste Operational as far as is knownOperational 8th December 1997				
	Preceded By Licence:	Not Given				
	Superseded By Licence:	Not Given				
	Positional Accuracy: Boundary Quality: Authorised Waste	Manually posi ioned to the address or location Not Supplied Construction And Demolition Wastes Excavation Waste Large Bulky Household Items Max.Storage In Licence				
	Prohibited Waste	Max.Waste Permitted By Licence Devon Cat.B: General Waste Spec.Waste (Epa'90:S62/1996 Regs) Waste N.O.S. Waste Of Hazardous Nature Waste Of Toxic Nature				
	Registered Waste T	reatment or Disposal Sites				
117	Licence Holder: Licence Reference: Site Location: Operator Location: Authority: Site Category: Max Input Rate: Waste Source	R G Bradley Of Atex Breakers L/BL/P/341 11 Whitehouse Place, Bedminster, BRISTOL, Avon, BS3 5AN As Site Address Environment Agency - South West Region, North Wessex Area Scrapyard Very Small (Less than 10,000 tonnes per year) No known restriction on source of waste	A14NW (E)	594	2	359200 171850
	Restrictions: Licence Status: Dated: Preceded By Licence: Superseded By	Site exempt from licenceExempt 11 h November 1997 Not Given Not Given				
	Licence: Positional Accuracy: Boundary Quality: Authorised Waste Prohibited Waste					
	Registered Waste T	reatment or Disposal Sites				
118	Licence Holder: Licence Reference: Site Location: Operator Location: Authority: Site Category: Max Input Rate: Waste Source Restrictions:	J J Geraghty t/a Bristol Rubbish Clearance	A17SE (NW)	736	2	357960 172190
	Licence Status: Dated: Preceded By Licence:	Licence has completion cer ificateSurrendered 16 h October 1992 Not Given				
		Not Given Manually posi ioned to the address or location				
	Boundary Quality: Authorised Waste	Not Supplied Bulky Houshold Clearance Waste Construction And Demolition Wastes Excavation Waste				
	Prohibited Waste	Bonded Asbestos Waste Liquid Wastes Poisonous, Noxious, Polluting Wastes Waste N.O.S.				



Hazardous Substances

Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Notification of Insta	Illations Handling Hazardous Substances (NIHHS)				
119	Name: Location: Status:	British Gas TransCo Canons Marsh Gas Holder, Brandon Yard, Anchor Road, BRISTOL, Avon, BS1 6UN Not Active	A17NE (NW)	848	6	358103 172506
		Automatically positioned to postcode unit of the address				
	Planning Hazardou	s Substance Consents				
120	Name: Location: Authority: Application Ref: Hazardous Substance: Maximum Quantity: Application date: Decision:	British Gas Plc Holder Station, Canons Marsh, Bristol, Avon, Bs1 6un Bristol City Council, Planning Department Hsdc/11 Part C, Flammable Substance (Not in Parts A&B), Gas or gases flammable in air, when held as a gas, where amount held is >= 15tonnes 82.42 21st September 1992 Deemed consent granted between June 1992 and November 1992Granted	A17NE (NW)	848	7	358103 172506
	Positional Accuracy:	Manually posi ioned to the address or location				

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Description:	d Geology Triassic Rocks (Undifferentiated)	A13SW	0	1	358599
			(E)			171796
	BGS Estimated Soil Source: Soil Sample Type: Arsenic Concentration:	British Geological Survey, National Geoscience Information Service Sediment 15 - 25 mg/kg	A13SW (E)	0	1	358599 171796
	Cadmium Concentration: Chromium Concentration: Lead Concentra ion: Nickel	<1.8 mg/kg 60 - 90 mg/kg 100 - 200 mg/kg 15 - 30 mg/kg				
	Concentration:	15 - 50 Hg/kg				
	BGS Estimated Soil	Chemistry				
	Source: Soil Sample Type: Arsenic Concentration:	British Geological Survey, National Geoscience Information Service Sediment 15 - 25 mg/kg	A13SW (W)	90	1	358500 171796
	Cadmium Concentration:	<1.8 mg/kg				
	Chromium Concentration: Lead Concentra ion: Nickel	60 - 90 mg/kg <100 mg/kg 15 - 30 mg/kg				
	Concentration:					
	Source: Soil Sample Type: Arsenic	British Geological Survey, National Geoscience Information Service Sediment 15 - 25 mg/kg	A13SE (SE)	310	1	358800 171539
	Concentration: Cadmium Concentration:	<1.8 mg/kg				
	Chromium Concentration: Lead Concentra ion: Nickel	90 - 120 mg/kg 100 - 200 mg/kg 15 - 30 mg/kg				
	Concentration:					
	BGS Estimated Soil Source: Soil Sample Type: Arsenic	Chemistry British Geological Survey, National Geoscience Information Service Sediment 15 - 25 mg/kg	A13SE (SE)	317	1	358753 171500
	Concentration: Cadmium Concentration:	<1.8 mg/kg				
	Chromium Concentration:	90 - 120 mg/kg				
	Lead Concentra ion: Nickel Concentration:	<100 mg/kg 15 - 30 mg/kg				
	BGS Estimated Soil	-				
	Source: Soil Sample Type: Arsenic Concentration:	British Geological Survey, National Geoscience Information Service Sediment 15 - 25 mg/kg	A13SE (SE)	350	1	358789 171483
	Cadmium Concentration:	<1.8 mg/kg				
	Chromium Concentration: Lead Concentra ion:	60 - 90 mg/kg <100 mg/kg				
	Nickel Concentration:	15 - 30 mg/kg				
	BGS Estimated Soil	Chemistry				
	Source: Soil Sample Type: Arsenic	British Geological Survey, National Geoscience Information Service Sediment 25 - 35 mg/kg	A9NW (SE)	503	1	358959 171421
	Concentration: Cadmium Concentration:	<1.8 mg/kg				
	Chromium Concentration:	90 - 120 mg/kg				
	Lead Concentra ion: Nickel Concentration:	<100 mg/kg 30 - 45 mg/kg				



Geological

Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil	Chemistry				
	Source: Soil Sample Type: Arsenic Concentration:	British Geological Survey, National Geoscience Information Service Sediment 25 - 35 mg/kg	A9NW (SE)	512	1	359000 171452
	Cadmium Concentration:	<1.8 mg/kg				
	Chromium Concentration:	90 - 120 mg/kg				
	Lead Concentra ion: Nickel Concentration:	100 - 200 mg/kg 30 - 45 mg/kg				
	BGS Estimated Soil	Chemistry				
	Source: Soil Sample Type: Arsenic	British Geological Survey, National Geoscience Information Service Sediment 35 - 45 mg/kg	A9NW (SE)	537	1	358987 171401
	Concentration: Cadmium	<1.8 mg/kg				
	Concentration:	90 - 120 mg/kg				
	Concentration: Lead Concentra ion: Nickel Concentration:	<100 mg/kg 30 - 45 mg/kg				
	BGS Estimated Soil	Chemistry				
	Source: Soil Sample Type: Arsenic	British Geological Survey, National Geoscience Information Service Sediment 35 - 45 mg/kg	A9NW (SE)	539	1	359000 171412
	Concentration: Cadmium	<1.8 mg/kg				
	Concentration: Chromium Concentration:	90 - 120 mg/kg				
	Lead Concentration: Nickel Concentration:	100 - 200 mg/kg 30 - 45 mg/kg				
	BGS Estimated Soil	Chemistry				
	Source: Soil Sample Type: Arsenic	British Geological Survey, National Geoscience Information Service Sediment 35 - 45 mg/kg	A9NW (SE)	659	1	359178 171451
	Concentration: Cadmium Concentration:	<1.8 mg/kg				
	Chromium Concentration:	90 - 120 mg/kg				
	Lead Concentra ion: Nickel Concentration:	100 - 200 mg/kg 30 - 45 mg/kg				
	BGS Estimated Soil	Chemistry				
	Source: Soil Sample Type: Arsenic Concentration:	British Geological Survey, National Geoscience Information Service Sediment 15 - 25 mg/kg	A9SW (SE)	873	1	359000 171002
	Cadmium Concentration:	<1.8 mg/kg				
	Chromium Concentration:	90 - 120 mg/kg				
	Lead Concentra ion: Nickel Concentration:	100 - 200 mg/kg 15 - 30 mg/kg				
	BGS Estimated Soil	Chemistry				
	Source: Soil Sample Type: Arsenic	British Geological Survey, National Geoscience Information Service Sediment 25 - 35 mg/kg	A14SE (E)	922	1	359530 171788
	Concentration:	<1.8 mg/kg				
	Concentration: Chromium Concentration:	90 - 120 mg/kg				
	Lead Concentration: Nickel Concentration:	100 - 200 mg/kg 30 - 45 mg/kg				





Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Source: Soil Sample Type: Arsenic Concentration: Cadmium Concentration: Chromium Concentration: Lead Concentra ion: Nickel Concentration:	British Geological Survey, National Geoscience Information Service Sediment 35 - 45 mg/kg <1.8 mg/kg 90 - 120 mg/kg	A14SE (E)	964	1	359572 171765
121	,	Malagoo Vale Works Not Supplied British Geological Survey, National Geoscience Information Service 227911 Opencast Ceased Not Supplied Not Supplied Triassic Mercia Mudstone Group Common Clay and Shale Located by supplier to within 10m	A8NW (S)	532	1	358448 171270
122	BGS Recorded Mine Site Name: Location: Source: Reference: Type: Status: Operator: Operator Location: Periodic Type: Geology: Commodity: Positional Accuracy:	Malagoo Vale Works Not Supplied British Geological Survey, National Geoscience Information Service 227910 Opencast Ceased Not Supplied Not Supplied Triassic Mercia Mudstone Group Common Clay and Shale Located by supplier to within 10m	A7SE (SW)	778	1	358235 171091
123	BGS Recorded Mine Site Name: Location: Source: Reference: Type: Status: Operator: Operator Location: Periodic Type: Geology: Commodity: Positional Accuracy:	Malagoo Vale Works Mot Supplied British Geological Survey, National Geoscience Information Service 227909 Opencast Ceased Not Supplied Not Supplied Triassic Mercia Mudstone Group Common Clay and Shale Located by supplier to within 10m	A7SE (S)	927	1	358255 170919
	BGS Measured Urba	an Soil Chemistry				
	BGS Urban Soil Che No data available	emistry Averages				
	Coal Mining Affected Description:	d Areas In an area which may be affected by coal mining activity. It is recommended that a coal mining report is obtained from the Coal Authority. Contact details are included in the Useful Contacts section of this report.	A13SW (E)	0	8	358599 171796
	Mining Instability Mining Evidence: Source: Boundary Quality:	Inconclusive Coal Mining Ove Arup & Partners As Supplied	A13SW (E)	0	-	358599 171796
	Man-Made Mining C Easting: Northing: Distance: Quadrant Reference: Quadrant Reference: Bearing Ref: Cavity Type: Commodity: Solid Geology Detail: Superficial Geology Detail:	358900 172300 572 A18 SE NE Adit Entry Pillar and Stall Sand Mines Sandstone Redcliffe Sandstone Forma ion	A18SE (NE)	572	9	358900 172300



Geological

/lap ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Non Coal Mining Ar	eas of Great Britain				
		ible Outside Otability Harranda				
	Hazard Poten ial: Source:	sible Ground Stability Hazards No Hazard British Geological Survey, National Geoscience Information Service	A13SW (E)	0	1	358599 171796
	Potential for Collaps Hazard Poten ial: Source:	sible Ground Stability Hazards Very Low British Geological Survey, National Geoscience Information Service	A13NW (NW)	40	1	35855 ² 171819
	Potential for Compr Hazard Poten ial: Source:	essible Ground Stability Hazards Very Low British Geological Survey, National Geoscience Information Service	A13SW (E)	0	1	358599 171796
	Potential for Compr Hazard Poten ial: Source:	essible Ground Stability Hazards No Hazard British Geological Survey, National Geoscience Information Service	A13NW (NW)	97	1	358553 171902
	Potential for Compr Hazard Poten ial: Source:	essible Ground Stability Hazards Moderate British Geological Survey, National Geoscience Information Service	A13NE (N)	208	1	358619 172019
	Potential for Ground Hazard Poten ial: Source:	d Dissolution Stability Hazards No Hazard British Geological Survey, National Geoscience Information Service	A13SW (E)	0	1	358599 171790
	Potential for Landsl Hazard Poten ial: Source:	ide Ground Stability Hazards Very Low British Geological Survey, National Geoscience Information Service	A13SW (E)	0	1	35859 17179
	Potential for Landsl Hazard Poten ial: Source:	ide Ground Stability Hazards Low British Geological Survey, National Geoscience Information Service	A13NE (N)	208	1	35861 17201
	Potential for Landsl Hazard Poten ial: Source:	ide Ground Stability Hazards Moderate British Geological Survey, National Geoscience Information Service	A13NE (NE)	245	1	35871 17202
	Potential for Runnin Hazard Poten ial: Source:	ng Sand Ground Stability Hazards Very Low British Geological Survey, National Geoscience Information Service	A13SW (E)	0	1	35859 17179
	Potential for Running Hazard Poten ial: Source:	ng Sand Ground Stability Hazards Low British Geological Survey, National Geoscience Information Service	A13NW (NW)	97	1	35855 17190
	Potential for Runnin Hazard Poten ial: Source:	ng Sand Ground Stability Hazards Moderate British Geological Survey, National Geoscience Information Service	A13NE (N)	208	1	35861 17201
	Potential for Shrink Hazard Poten ial: Source:	ing or Swelling Clay Ground Stability Hazards Low British Geological Survey, National Geoscience Information Service	A13SW (E)	0	1	35859 17179
	Potential for Shrink Hazard Poten ial: Source:	ing or Swelling Clay Ground Stability Hazards No Hazard British Geological Survey, National Geoscience Information Service	A13NW (NW)	40	1	35855 17181
	Radon Potential - R Affected Area: Source:	adon Affected Areas The property is in a Lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level). British Geological Survey, National Geoscience Information Service	A13SW (E)	0	1	35859 17179
		adon Protection Measures No radon protective measures are necessary in the construction of new dwellings or extensions British Geological Survey, National Geoscience Information Service	A13SW (E)	0	1	35859 17179

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
124	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Lombard Service Station Brook Road, Southville, Bristol, BS3 1AJ Garage Services Inactive Automatically positioned to the address	A13NE (N)	0	-	358603 171808
124	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Lombard Service Station Brook Road, Southville, Bristol, BS3 1AJ Garage Services Inactive Automatically positioned to the address	A13NE (N)	0	-	358603 171808
125	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	Done & Dusted 11, Alpha Road, Bristol, Avon, BS3 1DH Commercial Cleaning Services Inactive Automatically positioned to the address	A13NW (NW)	99	-	358508 171864
125	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Alpha Pest Control 3, Alpha Road, Bristol, BS3 1DH Pest & Vermin Control Inactive Automatically positioned to the address	A13NW (NW)	119	-	358520 171907
126	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	Johnsons The Cleaners East Street, Bedminster, Bristol, BS3 4JY Dry Cleaners Active Automatically positioned to the address	A13NE (E)	128	-	358736 171809
126	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	Asda Petrol East Street, Bedminster, Bristol, BS3 4JY Petrol Filling Stations Active Automatically positioned to the address	A13NE (E)	129	-	358736 171809
126	Contemporary Trad Name: Location: Classification: Status:		A13NE (E)	129	-	358736 171809
127	Contemporary Trad Name: Location: Classification: Status:		A13NE (N)	130	-	358610 171942
128	Contemporary Trad Name: Location: Classification: Status:	· · · · · · · · · · · · · · · · · · ·	A13SE (SE)	136	-	358668 171660
128	Contemporary Trad Name: Location: Classification: Status:		A13SE (SE)	136	-	358668 171660
129	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	Advanced Photo Ltd Unit 4-5 East St, Bedminster, Bristol, BS3 4HH Photographic Processors Inactive Manually posi ioned to the road wi hin the address or location	A13SE (SE)	146	-	358734 171708
129	Contemporary Trad Name: Location: Classification: Status:		A13SE (SE)	180	-	358766 171695

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Contemporary Trad					
130	Name: Location: Classification: Status: Positional Accuracy:	Reynolds Blinds 25-25a, East Street, Bedminster, Bristol, BS3 4HH Roller Shutter Manufacturers Active Automatically positioned to the address	A13SE (SE)	161	-	358726 171672
	Contemporary Trad					
130	Name: Location: Classification: Status: Positional Accuracy:	Avon Chemicals Unit 21, Windmill Farm Business Centre, Bartley Street, Bristol, BS3 4DB Chemicals & Allied Products Inactive Automatically positioned to the address	A13SE (SE)	181	-	358717 171638
	Contemporary Trad	e Directory Entries				
130	Name: Location: Classification: Status:	Sd Autos Unit 5-6, Windmill Farm Business Centre, Bartley Street, Bristol, Avon, BS3 4DB Garage Services Inactive	A13SE (SE)	186	-	358753 171666
	,	Manually posi ioned to the address or location				
130	Name: Location: Classification: Status: Positional Accuracy:	Bubble 1 Unit 20,Windmill Farm Business Centre,Bartley St, Bristol, Avon, BS3 4DB Catering Equipment Inactive Manually posi ioned to the address or location	A13SE (SE)	187	-	358725 171636
	Contemporary Trad					
130	Name: Location: Classification: Status:	T D Garage Services Unit 20, Windmill Farm Business Centre, Bartley Street, Bristol, BS3 4DB Garage Services Active Automatically positioned to the address	A13SE (SE)	188	-	358726 171636
	Contemporary Trad					
130	Name: Location: Classification: Status:	Exclusive Foods Unit 18, Windmill Farm Business Centre, Bartley Street, Bristol, BS3 4DB Food Products - Manufacturers Active Automatically positioned to the address	A13SE (SE)	198	-	358739 171634
	Contemporary Trad					
130	Name: Location: Classification: Status:	H C Slingsby Plc Unit 17, Windmill Farm Business Centre, Bartley Street, Bristol, BS3 4DB Trolley, Truck & Barrow Makers Inactive Automatically positioned to the address	A13SE (SE)	206	-	358748 171630
	Contemporary Trad	e Directory Entries				
130	Name: Location: Classification: Status: Positional Accuracy:	Premier Autogas Unit 17, Windmill Farm Business Centre, Bartley Street, Bristol, BS3 4DB Car Customisation & Conversion Specialists Inactive Automatically positioned to the address	A13SE (SE)	206	-	358748 171630
	Contemporary Trad					
130	Name: Location: Classification: Status: Positional Accuracy:	M S M Motors Unit 16, Windmill Farm Business Centre, Bartley Street, Bristol, BS3 4DB Garage Services Active Automatically positioned to the address	A13SE (SE)	214	-	358756 171627
	Contemporary Trad	e Directory Entries				
130	Name: Location: Classification: Status: Positional Accuracy:	Trump Cards Ltd Unit 16, Windmill Farm Business Centre, Bartley Street, Bristol, BS3 4DB Greeting Card Publishers & Wholesalers Inactive Automatically positioned to the address	A13SE (SE)	214	-	358756 171627
	Contemporary Trad	e Directory Entries				
130	Name: Location: Classification: Status: Positional Accuracy:	The Naked Kitchen Ltd Unit 15, Windmill Farm Business Centre, Bartley Street, Bristol, BS3 4DB Food Products - Manufacturers Active Automatically positioned to the address	A13SE (SE)	221	-	358764 171625

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
130	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	le Directory Entries Tri-Call Refrigeration Unit 15, Windmill Farm Business Centre, Bartley Street, Bristol, BS3 4DB Refrigera ion Equipment - Commercial Inactive Automatically positioned to the address	A13SE (SE)	221	-	358764 171625
131	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	le Directory Entries Prestige Road Mark Ltd 44-45, Coronation Road, Southville, Bristol, BS3 1AR Road Haulage Services Inactive Automatically positioned to the address	A13NE (N)	171	-	358653 171974
132	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Supasnaps 67, East Street, Bedminster, Bristol, BS3 4HB Photographic Processors Inactive Automatically positioned to the address	A13SE (S)	178	-	358622 171604
133	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Marshall Tyres 6, Philip Street, Bedminster, Bristol, BS3 4EA Tyre Dealers Inactive Automatically positioned to the address	A13SE (E)	193	-	358797 171746
134	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	le Directory Entries Klick 93, East Street, Bedminster, Bristol, Avon, BS3 4EX Photographic Processors Inactive Automatically positioned to the address	A13SW (S)	213	-	358553 171573
134	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	G P S Group 1-2, Leicester Street, Bristol, BS3 4DE Electrical Engineers Active Automatically positioned to the address	A13SW (S)	221	-	358589 171561
135	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	Be Directory Entries Britair Southwest Ltd Unit 9, Windmill Farm Business Centre, Bartley Street, Bristol, BS3 4DB Air Condi ioning & Refrigeration Contractors Inactive Automatically positioned to the address	A13SE (SE)	220	-	358793 171663
135	Contemporary Trad Name: Location: Classification: Status:		A13SE (SE)	221	-	358797 171668
136	Contemporary Trad Name: Location: Classification: Status:	· · · · · · · · · · · · · · · · · · ·	A13NW (NW)	223	-	358396 171919
137	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	le Directory Entries All Cars Bargains 27, Nelson Parade, Bristol, BS3 4HY Car Dealers Inactive Automatically positioned to the address	A13NE (E)	244	-	358842 171870
137	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	le Directory Entries S M Lopres i Ice Cream 70, Bedminster Parade, Bristol, BS3 4HL Ice Cream Manufacturers & Suppliers Active Automatically positioned to the address	A13NE (E)	250	-	358857 171823
137	Contemporary Trad Name: Location: Classification: Status:		A13NE (E)	258	-	358864 171832

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
137	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Swift Sure Print 54-56, Bedminster Parade, Bristol, BS3 4HS Printers Inactive Automatically positioned to the address	A13NE (E)	277	-	358879 171855
137	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Bedminster Domestic Appliances Ltd 52, Bedminster Parade, Bristol, BS3 4HS Washing Machines - Servicing & Repairs Active Automatically positioned to the address	A13NE (E)	282	-	358883 171862
137	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Bristol Blue Crystal Glassworks Ltd 50, Bedminster Parade, Bristol, BS3 4HS China & Glassware Manufacturers & Repairs Inactive Automatically positioned to the address	A13NE (E)	286	-	358887 171866
138	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	Bright House 114-116, East Street, Bedminster, Bristol, BS3 4EY Electrical Goods Sales, Manufacturers & Wholesalers Inactive Automatically positioned to the address	A13SW (SW)	245	-	358490 171559
138	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Pets Palace 126, East Street, Bedminster, Bristol, BS3 4ET Pet Foods & Animal Feeds Inactive Automatically positioned to the address	A13SW (SW)	276	-	358462 171539
139	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	le Directory Entries Ami Design Ltd 25, Warden Road, BRISTOL, BS3 1BU Engineering Services Inactive Automatically positioned to the address	A13SW (SW)	262	-	358406 171598
139	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	The Albany Panel Beating Co 6 Albany Buildings, Dean Lane, Bristol, BS3 1BT Car Body Repairs Inactive Automatically positioned to the address	A13SW (SW)	293	-	358378 171581
140	Contemporary Trad Name: Location: Classification: Status:		A13SE (S)	267	-	358629 171516
140	Contemporary Trad Name: Location: Classification: Status:		A13SE (S)	279	-	358638 171504
141	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	South Western Plastics Ltd The Old Jail, Willway Street, Bristol, BS3 4BG Coating Specialists Inactive Automatically positioned to the address	A13SE (E)	278	-	358883 171738
141	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	Birdie Golf 8a, Willway Street, Bristol, BS3 4BG Printers Active Automatically positioned to the address	A13SE (E)	295	-	358898 171727
141	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	le Directory Entries South Western Plastics Ltd The Old Jail, Willway Street, Bristol, BS3 4BG Coating Specialists Inactive Automatically positioned to the address	A13SE (E)	295	-	358898 171727

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Contemporary Trad					
141	Name: Location: Classification: Status: Positional Accuracy:	Workbrands Ferodo House, Willway Street, Bristol, Avon, BS3 4BG Printers Inactive Manually posi ioned to the address or location	A13SE (E)	295	-	358898 171727
	Contemporary Trad	e Directory Entries				
142	Name: Location:	A M Reprographics Unit 4, St. Catherines Trading Estate, Whitehouse Lane, Bristol, Avon, BS3 4DJ	A13SE (SE)	294	-	358748 171524
	Classification: Status: Positional Accuracy:	Copying & Duplicating Services Inactive Automatically positioned to the address				
	Contemporary Trad	e Directory Entries				
142	Name: Location: Classification: Status: Positional Accuracy:	Bristol Blue Glass Bedminster Unit 5, St. Catherines Industrial Estate, Whitehouse Lane, Bristol, BS3 4DJ Glass Products - Manufacturers Inactive Automatically positioned to the address	A13SE (SE)	299	-	358758 171524
	Contemporary Trad					
143	Name: Location: Classification: Status: Positional Accuracy:	Minuteman Press 15-19, Nelson Parade, Bristol, BS3 4HY Printers Inactive Automatically positioned to the address	A13NE (NE)	297	-	358882 171919
	Contemporary Trad	e Directory Entries				
143	Name: Location: Classification: Status: Positional Accuracy:	Minuteman Press Ltd 15-19, Nelson Parade, Bristol, Avon, BS3 4HY Printers Inactive Automatically positioned to the address	A13NE (NE)	297	-	358882 171919
	Contemporary Trad	e Directory Entries				
143	Name: Location: Classification: Status:	Impress Prime 15-19, Nelson Parade, Bristol, BS3 4HY Printers Inactive	A13NE (NE)	297	-	358882 171919
	Contemporary Trad	Automatically positioned to the address				
143	Name: Location: Classification: Status:	Skyburst The Firework Co 11, Nelson Parade, Bristol, BS3 4JA Firework Technicians, Manufacturers & Distribution Inactive Automatically positioned to the address	A13NE (NE)	311	-	358892 171931
	Contemporary Trad	e Directory Entries				
143	Name: Location: Classification: Status: Positional Accuracy:	Skyburst Illuminations Ltd 11, Nelson Parade, Bristol, Avon, BS3 4JA Firework Stockists Inactive Automatically positioned to the address	A13NE (NE)	311	-	358892 171931
	Contemporary Trad	e Directory Entries				
143	Name: Location: Classification: Status: Positional Accuracy:	Skyburst The Firework Company 11, Nelson Parade, Bristol, BS3 4JA Firework Stockists Active Automatically positioned to the address	A13NE (NE)	311	-	358892 171931
	Contemporary Trad					
144	Name: Location: Classification: Status: Positional Accuracy:	A D Vice Philip Street, Bedminster, Bristol, BS3 4EA Car Body Repairs Inactive Automatically positioned to the address	A13SE (SE)	317	-	358895 171648
	Contemporary Trad					
145	Name: Location: Classification: Status:	Family Cars 6, Whitehouse Lane, BRISTOL, BS3 4DW Car Dealers Active	A13SE (SE)	323	-	358824 171541

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
145	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Cabot Motors Ltd Clarke Street, Bristol, BS3 4DX Garage Services Active Automatically positioned to the address	A13SE (SE)	325	-	358791 171513
145	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries F Kelly Whitehouse La, Bristol, BS3 4DN Car Body Repairs Inactive Manually posi ioned to the road wi hin the address or location	A13SE (SE)	354	-	358846 171520
145	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Whitehouse Tyre Sales 85-93, Whitehouse Lane, Bristol, BS3 4DN Tyre Dealers Active Automatically positioned to the address	A13SE (SE)	368	-	358846 171501
146	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Reclaimers Reclamation The Mill Building, Cumberland Rd, Bristol, Avon, BS1 6XG Reclaiming - Waste Products Inactive Manually posi ioned to the address or location	A13NW (N)	328	-	358523 172134
147	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Chessington Tyres Ltd Unit 1/2, St. Catherines Industrial Estate, Whitehouse Lane, Bristol, BS3 4DJ Tyre Dealers Inactive Automatically positioned to the address	A13SE (SE)	337	-	358741 171473
148	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Shine Cleaning Bristol Ltd 1, West End, Bristol, BS3 1AU Commercial Cleaning Services Inactive Automatically positioned to the address	A13NW (NW)	345	-	358305 172004
148	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Shine Cleaning Bristol Ltd 1, West End, Bristol, BS3 1AU Cleaning Services - Domes ic Inactive Automatically positioned to the address	A13NW (NW)	345	-	358305 172004
148	Contemporary Trad Name: Location: Classification: Status:		A13NW (NW)	357	-	358302 172021
149	Contemporary Trad Name: Location: Classification: Status:		A14SW (E)	351	-	358947 171691
149	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Doveton Press Ltd 15, Willway Street, Bristol, BS3 4BG Printers Active Automatically positioned to the address	A14SW (E)	351	-	358947 171691
150	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Andrew Wheeler 3, Wapping Road, Bristol, BS1 4RH Picture & Picture Frame Renovating & Restoring Active Automatically positioned to the address	A18SE (N)	361	-	358643 172171
151	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Avon Exhaust Centre 2, North Street, Bedminster, Bristol, BS3 1HT Exhaust & Shock Absorber Centres Inactive Automatically positioned to the address	A13SW (SW)	366	-	358289 171576

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
151	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Avon Exhaust Centre 2, North Street, Bedminster, Bristol, Avon, BS3 1HT Exhaust & Shock Absorber Centres Inactive Automatically positioned to the address	A13SW (SW)	366	-	358289 171576
151	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	le Directory Entries Mjj Autos Ltd Booth Rd, Bristol, Avon, BS3 1BP Garage Services Inactive Manually posi ioned within the geographical locality	A13SW (SW)	372	-	358270 171595
151	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Assimilate Systems Booth Road, Bedminster, Bristol, BS3 1BP Engineering Services Active Automatically positioned to the address	A13SW (SW)	372	-	358270 171595
152	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	le Directory Entries A B C Engineering Supplies Ltd 95-101, Whitehouse Lane, Bristol, BS3 4DN Fasteners & Fixing Devices Inactive Automatically positioned to the address	A13SE (SE)	369	-	358829 171487
152	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	le Directory Entries Bristol Wire Rope Products Ltd 95-101, Whitehouse Lane, Bristol, BS3 4DN Lifting Equipment Inactive Automatically positioned to the address	A13SE (SE)	369	-	358829 171487
152	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	le Directory Entries S & S Autobodies Ltd 111-115, Whitehouse Lane, Bristol, BS3 4DN Car Body Repairs Inactive Automatically positioned to the address	A13SE (SE)	373	-	358807 171466
152	Contemporary Trad Name: Location: Classification: Status:		A13SE (SE)	373	-	358807 171466
152	Contemporary Trad Name: Location: Classification: Status:		A13SE (SE)	373	-	358807 171466
152	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	le Directory Entries A 1 Cutting Formes 117, Whitehouse Lane, Bristol, BS3 4DN Builders' Tools & Equipment Manufacturers Active Automatically positioned to the address	A8NE (SE)	376	-	358794 171455
152	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	le Directory Entries Alltow Recovery 131-135, Whitehouse Lane, Bristol, BS3 4DN Car Breakdown & Recovery Services Inactive Automatically positioned to the address	A8NE (SE)	376	-	358768 171442
152	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	Rogers Garage Services 131-135, Whitehouse Lane, Bristol, BS3 4DN Garage Services Inactive Automatically positioned to the address	A8NE (SE)	376	-	358768 171442
152	Contemporary Trad Name: Location: Classification: Status:		A8NE (SE)	377	-	358788 171451

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
152	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	Whitehouse Discount Warehouse 121, Whitehouse Lane, BRISTOL, BS3 4DN Car Dealers - Used Active Automatically positioned to the address	A8NE (SE)	377	-	358780 171447
153	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	le Directory Entries Mildon Transport Ltd 79-81, Whitehouse Lane, Bristol, BS3 4DN Road Haulage Services Inactive Automatically positioned to the address	A13SE (SE)	375	-	358865 171510
153	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	le Directory Entries Uk Carbody Ltd 79-81, Whitehouse Lane, Bristol, BS3 4DN Car Body Repairs Active Automatically positioned to the address	A13SE (SE)	375	-	358865 171510
153	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries M J Autos 83, Whitehouse Lane, Bristol, BS3 4DN Garage Services Inactive Automatically positioned to the address	A13SE (SE)	377	-	358860 171502
153	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	le Directory Entries Serjeant Commercials 67-77, Whitehouse Lane, Bristol, BS3 4DN Garage Services Inactive Automatically positioned to the address	A13SE (SE)	379	-	358880 171518
153	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	le Directory Entries Serjeant Commercial Vehicle Repairs Ltd 67-77, Whitehouse Lane, Bristol, BS3 4DN Commercial Vehicle Servicing, Repairs, Parts & Accessories Inactive Automatically positioned to the address	A13SE (SE)	379	-	358880 171518
154	Contemporary Trad Name: Location: Classification: Status:	**	A13NE (NE)	384	-	358845 172110
155	Contemporary Trad Name: Location: Classification: Status:		A12SE (W)	392	-	358201 171746
156	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	le Directory Entries Cameron Engineering St. Johns Street, Bedminster, Bristol, Avon, BS3 4NH Engineers - General Inactive Automatically positioned to the address	A8NW (SW)	394	-	358396 171440
157	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	W J Farvis & Sons Ltd Temple Works, Morley Road, Southville, Bristol, BS3 1DT Engineers - General Inactive Automatically positioned to the address	A12SE (W)	399	-	358208 171670
158	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	Moto-Tech Fleet Servicing 43-55, Whitehouse Lane, Bristol, BS3 4DW Mot Testing Centres Inactive Automatically positioned to the address	A14SW (SE)	400	-	358940 171559
158	Contemporary Trad Name: Location: Classification: Status:		A14SW (SE)	421	-	358976 171579

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
158	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	le Directory Entries Whitehouse Bodyworks 27-41, Whitehouse Lane, Bristol, BS3 4DW Garage Services Inactive Automatically positioned to the address	A14SW (SE)	421	-	358976 171579
158	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	le Directory Entries Vehicle Clinic 27-33, Whitehouse Lane, Bristol, BS3 4DW Garage Services Active Automatically positioned to the address	A14SW (SE)	424	-	358981 171581
159	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	le Directory Entries Assured Preservation & Maintenance Ltd 16, North Street, Bedminster, Bristol, BS3 1HW Damp & Dry Rot Control Inactive Automatically positioned to the address	A12SE (SW)	426	-	358232 171552
159	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	le Directory Entries Wyatt & Ackerman 30, North Street, Bedminster, Bristol, BS3 1HW Paper & Cardboard Products & Packaging - Manufacturers Active Automatically positioned to the address	A12SE (SW)	461	-	358198 171542
160	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	le Directory Entries West House Transport 20, Whitehouse Street, Bristol, BS3 4AY Distribution Services Active Automatically positioned to the address	A14SW (E)	429	-	359025 171678
160	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	Be Directory Entries Bristol Hand Made Glass 16 Whitehouse St, Bristol, BS3 4AY Stained Glass Designers & Producers Inactive Automatically positioned to the address	A14SW (E)	434	-	359040 171740
160	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	Re Directory Entries Rollcall Supplies 8, Willway Street, Bristol, BS3 4BG Cleaning Materials & Equipment Active Automatically positioned to the address	A14SW (E)	441	-	359048 171745
160	Contemporary Trad Name: Location: Classification: Status:		A14SW (E)	441	-	359048 171745
160	Contemporary Trad Name: Location: Classification: Status:		A14SW (E)	441	-	359048 171745
160	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	le Directory Entries Creative Glass Studios 16, Whitehouse Street, Bristol, BS3 4AY Stained Glass Designers & Producers Inactive Automatically positioned to the address	A14SW (E)	441	-	359048 171745
160	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	le Directory Entries Bristol Clutch & Brake Centre 18, Whitehouse Street, Bristol, BS3 4AY Brake & Clutch Service Centres Inactive Automatically positioned to the address	A14SW (E)	453	-	359054 171705
161	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	The Floor Maintenance Advice Centre St. Lukes Hall, William Street, Bedminster, Bristol, BS3 4BW Cleaning Materials & Equipment Inactive Automatically positioned to the address	A14NW (E)	443	-	359046 171859

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
162	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Bristol Cars 13, Sargent Street, Bristol, BS3 4BE Car Dealers - Used Inactive Automatically positioned to the address	A14SW (E)	456	-	359064 171780
162	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries The Window Factory 14, Whitehouse Street, Bristol, Avon, BS3 4AY Window Frame Manufacturers Inactive Automatically positioned to the address	A14SW (E)	463	-	359071 171766
163	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries 1st Class 3, Merrywood Close, Bristol, BS3 1EA Carpet, Curtain & Upholstery Cleaners Inactive Automatically positioned to the address	A12SE (W)	459	-	358157 171634
164	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Industrial Shot Blast & Spraying Malago Road, Bristol, Avon, BS3 4JH Metal Finishing Services Inactive Automatically positioned to the address	A8NW (S)	465	-	358575 171318
165	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries G R C Leathers 11, Waring House, Redcliff Hill, Bristol, Avon, BS1 6TB Leather Garments & Products Inactive Automatically positioned to the address	A14NW (NE)	479	-	358981 172107
165	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Avon Services Ltd 8/9, Waring House, Redcliff Hill, Bristol, BS1 6TB Cleaning Materials & Equipment Inactive Automatically positioned to the address	A14NW (NE)	493	-	358988 172122
165	Contemporary Trad Name: Location: Classification: Status:	**	A14NW (NE)	499	-	358991 172127
165	Contemporary Trad Name: Location: Classification: Status:	•••	A14NW (NE)	503	-	358993 172131
165	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Denture Repairs While-You-Wait Service 5 Waring House, Redcliff Hill, Bristol, BS1 6TB Medical & Dental Laboratories Active Automatically positioned to the address	A19SW (NE)	508	-	358994 172138
166	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Drake & Scull Engineering Ltd 10, Whitehouse Street, Bristol, BS3 4AU Mechanical Engineers Inactive Automatically positioned to the address	A14NW (E)	482	-	359090 171825
167	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Scrap A Car Bristol 1-9, Whitehouse Lane, Bristol, BS3 4DJ Car Component Manufacturers Inactive Automatically positioned to the address	A14SW (E)	488	-	359070 171625
167	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Avon Combined Electrical Services Ltd 1-9, Whitehouse Lane, Bristol, BS3 4DJ Mechanical Engineers Active Automatically positioned to the address	A14SW (E)	491	-	359071 171621

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
168	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	le Directory Entries Clean-A-Carpet 40, Doudney Court, Bedminster, Bristol, BS3 4AP Carpet, Curtain & Upholstery Cleaners Inactive Automatically positioned to the address	A14NW (E)	507	-	359109 171874
168	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	le Directory Entries Clean-A-Carpet 40, Doudney Court, Bedminster, Bristol, BS3 4AP Carpet, Curtain & Upholstery Cleaners Inactive Automatically positioned to the address	A14NW (E)	507	-	359109 171874
168	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	le Directory Entries O S I (Europe) Ltd 23 Whitehouse St, Bristol, BS3 4AR Office Furniture & Equipment Inactive Manually posi ioned to the address or location	A14NW (E)	534	-	359140 171842
168	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	le Directory Entries Ap Whitehouse PI, Bristol, Avon, BS3 4BL Garage Services Inactive Manually posi ioned to the road wi hin the address or location	A14NW (E)	558	-	359163 171854
169	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	De Directory Entries Ocs Ltd 39, Whitehouse Street, Bristol, BS3 4AY Commercial Cleaning Services Inactive Automatically positioned to the address	A14SW (E)	509	-	359111 171711
169	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	le Directory Entries Cannon Textiles Care 35, Whitehouse Street, Bristol, BS3 4AY Laundries & Launderettes Inactive Automatically positioned to the address	A14SW (E)	518	-	359125 171758
170	Contemporary Trad Name: Location: Classification: Status:		A8NW (SW)	510	-	358296 171367
170	Contemporary Trad Name: Location: Classification: Status:		A8NW (SW)	525	-	358283 171358
171	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	Mr Clutch Unit 6b, Malago Road, Bristol, BS3 4JQ Brake & Clutch Service Centres Inactive Automatically positioned to the address	A8NW (S)	512	-	358480 171283
171	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	Mr Clutch Unit 7, Malago Road, Bristol, BS3 4JQ Brake & Clutch Service Centres Active Automatically positioned to the address	A8NW (S)	518	-	358472 171278
172	Contemporary Trad Name: Location: Classification: Status:		A12SE (SW)	518	-	358163 171490
172	Contemporary Trad Name: Location: Classification: Status:		A12SE (SW)	536	-	358127 171514

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
173	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Woodside Press Ltd 22a, Islington Road, Bristol, BS3 1QB Printers Inactive Automatically positioned to the address	A12NE (W)	527	-	358096 171992
174	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Breeze Carpet Cleaners Ltd Flat 6, 56-58, North Street, Bristol, BS3 1HJ Carpet, Curtain & Upholstery Cleaners Active Automatically positioned to the address	A12SE (SW)	552	-	358112 171508
175	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Adams & Thompson (Contractors) Ltd Taylors House, 4-10, Whitehouse Place, Bristol, BS3 4BL Tank Cleaning & Repairing Inactive Automatically positioned to the address	A14NW (E)	558	-	359161 171870
175	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Atex 11, Whitehouse Place, Bristol, BS3 4BL Car Breakers & Dismantlers Inactive Automatically positioned to the address	A14NW (E)	560	-	359164 171865
175	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Chemical Solutions (Uk) Ltd Taylor Ho, Whitehouse PI, Bristol, BS48 3AT Chemical Recycling & Disposal Services Inactive Manually posi ioned to the road wi hin the address or location	A14NW (E)	582	-	359187 171852
175	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Denart Engineering 14, Whitehouse Place, Bristol, BS3 4BL Engineers - General Inactive Automatically positioned to the address	A14NW (E)	587	-	359186 171902
175	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries G R B Auto Services 14-16, Whitehouse Place, Bristol, Avon, BS3 4BL Mechanical Engineers Inactive Manually posi ioned to the address or location	A14NW (E)	589	-	359191 171880
175	Contemporary Trad Name: Location: Classification: Status:		A14NW (E)	610	-	359214 171871
176	Contemporary Trad Name: Location: Classification: Status:		A14NW (E)	559	-	359167 171799
176	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Premier Car Warehouse Princess Street, Bedminster, Bristol, BS3 4AG Car Dealers - Used Active Automatically positioned to the address	A14NW (E)	591	-	359199 171825
176	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Teacrate Rentals Princess House, Princess Street, Bedminster, Bristol, BS3 4AG Pallets, Crates & Packing Cases Inactive Automatically positioned to the address	A14NW (E)	591	-	359199 171825
177	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Kwik Fit Unit 3, Malago Road, Bristol, BS3 4JQ Tyre Dealers Active Automatically positioned to the address	A8NW (S)	565	-	358429 171241

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
178	Contemporary Trade Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Jamjar Print Ltd Unit 1, Princess Street, Bedminster, Bristol, BS3 4AG Printers Active Automatically positioned to the address	A14SW (E)	567	-	359169 171706
179	Contemporary Trade Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Debut Sport Unit 2, Sheene Road, Bristol, Avon, BS3 4EG Sports Equipment Manufacturers & Distributors Inactive Manually posi ioned to the address or location	A8NW (SW)	581	-	358324 171267
179	Contemporary Trade Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries C & S Workshops Sheene Rd, Bristol, BS3 4EG Car Body Repairs Inactive Manually posi ioned to the address or location	A8NW (SW)	589	-	358348 171246
179	Contemporary Trade Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries D T M Petrol & Diesel Injection Specialists Ltd Unit 1, Sheene Court Industrial Estate, Sheene Road, Bristol, Avon, BS3 4EG Fuel Injection Services Inactive Automatically positioned to the address	A8NW (SW)	600	-	358348 171234
179	Classification: Status:	e Directory Entries Porschtech Unit 1, Sheene Road, BRISTOL, BS3 4EG Car Dealers Inactive Manually posi ioned within the geographical locality	A8NW (SW)	612	-	358328 171230
179	Contemporary Trade Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Elite Auto Services Unit 3, Sheene Court Industrial Estate, Sheene Road, Bristol, BS3 4EG Garage Services Active Automatically positioned to the address	A8NW (SW)	615	-	358312 171234
179	Contemporary Trade Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Gb Motorcross Ltd Unit 3, Sheene Court Industrial Estate, Sheene Road, Bristol, BS3 4EG Garage Services Active Automatically positioned to the address	A8NW (SW)	616	-	358312 171234
179	Contemporary Trade Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Elite Automotive Services Ltd Unit 3, Sheene Road, Bristol, BS3 4EG Garage Services Active Automatically positioned to the address	A8NW (SW)	623	-	358322 171220
179		e Directory Entries Artworks Solutions Ltd Unit 4, Sheene Court Industrial Estate, Sheene Road, Bristol, Avon, BS3 4EG Printers Inactive Manually posi ioned to the address or location	A8NW (SW)	627	-	358301 171227
179	Contemporary Trade Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Insight Print Media Unit 4, Sheene Road, Bristol, BS3 4EG Printers Inactive Automatically positioned to the address	A8NW (SW)	627	-	358301 171227
179	Contemporary Trade Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries C & N Pork Supplies Ltd Unit 5/6, Sheene Court Industrial Estate, Sheene Road, Bristol, BS3 4EG Meat - Wholesale Inactive Automatically positioned to the address	A8NW (SW)	651	-	358290 171206
180		e Directory Entries A B S 5, Orwell Street, Bristol, BS3 4LN Vehicle Inspection Services Inactive Automatically positioned to the address	A9NW (SE)	586	-	359023 171368

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
181	Classification: Scrap Metal M Status: Inactive	Bristol Scrap e Pl, Bristol, Avon, BS3 4BL	A14NW (E)	592	-	359197 171853
182	Contemporary Trade Directory En Name: Avon Pet & Ga Location: 73, North Stree Classification: Pet Foods & A Status: Inactive Positional Accuracy: Automatically	arden Centre et, Bedminster, Bristol, Avon, BS3 1ES nimal Feeds	A12SE (SW)	612	-	358068 171465
183		et, Bedminster, Bristol, Avon, BS3 1ES n & Upholstery Cleaners	A12SE (SW)	617	-	358064 171462
183		eaning Ltd et, Bedminster, Bristol, BS3 1HJ leaning Services	A12SE (SW)	628	-	358038 171486
183	Contemporary Trade Directory En Name: Stafford'S Dry Location: 82, North Stree Classification: Dry Cleaners Status: Inactive Positional Accuracy: Automatically	Cleaners et, Bedminster, Bristol, BS3 1HF	A12SE (SW)	644	-	358020 171484
184	Contemporary Trade Directory En Name: Jamieson Auto Location: 39-41, West S Classification: Garage Service Status: Active Positional Accuracy: Automatically	DEngineers treet, Bedminster, Bristol, BS3 3NS es	A7NE (SW)	619	-	358231 171279
184	Classification: Garage Service Status: Inactive	t Ltd ristol, Avon, BS3 3LH	A7NE (SW)	624	-	358205 171292
184	Contemporary Trade Directory En Name: Alusage Brune Location: 54, West Stree Classification: Aluminium Fat Status: Inactive Positional Accuracy: Automatically	el Ltd et, Bedminster, Bristol, BS3 3LH pricators	A7NE (SW)	630	-	358188 171298
184	Contemporary Trade Directory En Name: Bristol Automa Location: 36-54, West S Classification: Car Dealers Status: Inactive Positional Accuracy: Automatically	rt treet, Bedminster, Bristol, BS3 3LH	A7NE (SW)	630	-	358188 171298
184		ot & Service Centre Ltd tt, Bedminster, Bristol, BS3 3LH entres	A7NE (SW)	630	-	358188 171298
185	Contemporary Trade Directory En Name: Vee W Service Location: Unit 2, Princes Classification: Garage Service Status: Active Positional Accuracy: Automatically	es s Street, Bedminster, Bristol, BS3 4AG es	A14SW (E)	619	-	359226 171746
185	Classification: Builders' Merc Status: Inactive	& Sons Ltd edminster, Bristol, Avon, BS3 4AG	A14SW (E)	621	-	359229 171788

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Contemporary Trad	e Directory Entries				
185	Name: Location: Classification: Status:	Azimuth Print Ltd Unit 2a, Princess Street, Bedminster, Bristol, BS3 4AG Printers Active Automatically positioned to the address	A14SW (E)	630	-	359237 171752
185	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Dynamic Packaging Ltd Princess Street, Bedminster, Bristol, BS3 4AG Case Manufacturers Inactive Automatically positioned to the address	A14SW (E)	662	-	359270 171766
185	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Projects Distribution Princess Street, Bedminster, BRISTOL, BS3 4BN Sports Equipment Manufacturers & Distributors Inactive Automatically positioned to the address	A14SE (E)	680	-	359288 171776
185	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries S B A Ltd Princess Street, Bedminster, Bristol, BS3 4BN Hose, Tubing & Fittings Inactive Automatically positioned to the address	A14SE (E)	680	-	359288 171776
186	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Bristol Bumper Repairs Camden Rd, Bristol, Avon, BS3 1QA Car Body Repairs Inactive Manually posi ioned to the road wi hin the address or location	A12NE (W)	627	-	357991 171994
186	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	le Directory Entries K S Bodyworks Camden Road, Bristol, BS3 1QA Car Body Repairs Active Automatically positioned to the address	A12NE (W)	651	-	357980 172036
187	Contemporary Trad Name: Location: Classification: Status:	•	A8NW (S)	634	-	358509 171154
187	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	Hinton Rescue Unit D, Malago Vale Trading Estate, St. Johns Lane, Bristol, Avon, BS3 5BQ Garage Services Inactive Automatically positioned to the address	A8NW (S)	634	-	358509 171154
188	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	le Directory Entries Marsh Lane Bodyworks 53-55, British Road, Bristol, BS3 3BT Car Body Repairs Inactive Automatically positioned to the address	A7NE (SW)	634	-	358168 171310
188	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	Marsh Lane Bodyworks 53-55, British Road, Bristol, BS3 3BT Car Body Repairs Inactive Automatically positioned to the address	A7NE (SW)	634	-	358168 171310
189	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	Brooks Radio Systems Hebron House, Sion Road, Bristol, Avon, BS3 3BD Radio Communication Equipment Inactive Manually posi ioned to the address or location	A7NE (SW)	650	-	358096 171361
189	Contemporary Trad Name: Location: Classification: Status:		A7NE (SW)	650	-	358096 171361

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
189	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Out Of Hand Ltd Hebron House, Sion Road, Bristol, BS3 3BD Printers Active Automatically positioned to the address	A7NE (SW)	652	-	358096 171358
190	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Well Mother Suzanne Yates 24, Dunkerry Road, Bristol, BS3 4LB Printers Inactive Automatically positioned to the address	A8NE (S)	664	-	358812 171150
191	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Safe Options 4-5, The Grove, Bristol, BS1 4QZ Safes & Vaults - Suppliers & Installers Inactive Automatically positioned to the address	A18SE (N)	673	,	358844 172439
191	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Monks Consultants 30, Queen Square, Bristol, Avon, BS1 4ND Gas Suppliers Inactive Manually posi ioned to the address or location	A18SE (N)	676	-	358813 172453
192	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Bedminster Motor Services Unit C, Malago Vale Trading Estate, St. Johns Lane, Bristol, BS3 5BQ Garage Services Active Automatically positioned to the address	A8SW (S)	674	-	358472 171119
193	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Modal Electronics Mariner House, 62, Prince Street, Bristol, BS1 4QD Musical Instrument - Manufacturers Inactive Automatically positioned to the address	A18NE (N)	675	-	358608 172488
193	Contemporary Trad Name: Location: Classification: Status:		A18NW (N)	679	-	358598 172492
194	Contemporary Trad Name: Location: Classification: Status:		A14NE (E)	675	-	359280 171864
194	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Paul O'Brien Roofing & Building Unit 5 Victoria Grove, Bristol, Avon, BS3 4AN Electricity Generating & Distribu ing Equipment Active Manually posi ioned within the geographical locality	A14NE (E)	700	-	359304 171868
194	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries C T Garages Victoria Grove, Bristol, BS3 4AN Garage Services Active Automatically positioned to the address	A14NE (E)	713	-	359317 171872
194	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Robins & Day Spring Street, Bedminster, Bristol, BS3 4PZ Car Dealers Inactive Automatically positioned to the address	A14NE (E)	746	-	359349 171884
195	Contemporary Trad Name: Location: Classification: Status:		A12SE (SW)	679	-	357971 171507

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195	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Autopoint 92-100, North Street, Bedminster, Bristol, BS3 1HF Car Dealers - Used Inactive Automatically positioned to the address	A12SE (SW)	684	-	357970 171497
196	Contemporary Trad Name: Location: Classification: Status:	**	A19SW (NE)	681	-	359062 172315
197	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Bristol Classic Boat Co Redcliffe Wharf, Redcliffe Way, Bristol, BS1 6SR Boatbuilders & Repairers Inactive Automatically positioned to the address	A19SW (NE)	689	-	358993 172380
198	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Cleevewood Motors 70, West Street, Bedminster, Bristol, BS3 3LL Car Dealers - Used Inactive Automatically positioned to the address	A7NE (SW)	693	-	358157 171243
199	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Avon Services Unit 3, Bedminster Trade Park, Sheene Way, Bedminster, Bristol, BS3 4TA Cleaning Materials & Equipment Inactive Automatically positioned to the address	A8NW (SW)	722	-	358272 171135
199	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Avon Services Ltd Unit 3, Bedminster Trade Park, Sheene Way, Bedminster, Bristol, BS3 4TA Cleaning Materials & Equipment Active Automatically positioned to the address	A8NW (SW)	722	-	358272 171135
200	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Dr D S Kessler - Gaywood House Surgery Gaywood House, North Street, Bedminster, Bristol, BS3 3AZ Do It Yourself Wholesalers Active Automatically positioned to the address	A7NE (SW)	731	-	357979 171383
201	Contemporary Trad Name: Location: Classification: Status:	**	A18NE (N)	731	-	358668 172540
201	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Willett & Son (Bristol) Ltd 51, Queen Square, Bristol, BS1 4LJ Pet Foods & Animal Feeds Inactive Automatically positioned to the address	A18NE (N)	731	-	358668 172540
201	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Proctors Fertilisers 51, Queen Square, Bristol, BS1 4LH Fertilisers Inactive Automatically positioned to the address	A18NE (N)	731	-	358668 172540
202	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Chaplin Fabrications Iron Masters, Cotswold Rd, Bristol, Avon, BS3 4NS Wrought Ironwork Inactive Manually posi ioned to the road wi hin the address or location	A8SW (S)	739	-	358570 171044
203	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Clinton Car Sales Clinton Road, Bristol, BS3 5PB Car Dealers - Used Inactive Automatically positioned to the address	A8SW (S)	747	-	358394 171062

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203	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	le Directory Entries N W Cooling Ltd 25, Clinton Road, BRISTOL, BS3 5PB Air Condi ioning & Refrigeration Contractors Active Automatically positioned to the address	A8SW (S)	792	-	358379 171019
204	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	John Knight 120-140 North St, Bedminster, Bristol, Avon, BS3 1HF Car Dealers Inactive Automatically positioned to the address	A7NW (SW)	753	-	357916 171449
205	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	D N A Defence Queen Square House, 18-21, Queen Square, Bristol, BS1 4NH Laboratories Active Automatically positioned to the address	A18NE (N)	755	-	358873 172516
206	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Square Systems Ltd 10, Vicarage Road, Southville, Bristol, Avon, BS3 1PD Telecommunications Equipment & Systems Inactive Automatically positioned to the address	A12SW (W)	758	-	357844 171656
207	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	Selco Unit 1, Sheene Way, Bedminster, BRISTOL, BS3 4SZ Builders' Merchants Active Automatically positioned to the address	A8SW (SW)	770	-	358279 171079
208	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	Bedminster Domestic Appliances 86-90, West Street, Bedminster, Bristol, BS3 3LL Domestic Appliances - Servicing, Repairs & Parts Inactive Automatically positioned to the address	A7NE (SW)	772	-	358126 171166
209	Contemporary Trad Name: Location: Classification: Status:	**	A7NW (SW)	774	-	357892 171450
209	Contemporary Trad Name: Location: Classification: Status:		A7NW (SW)	774	-	357892 171450
209	Contemporary Trad Name: Location: Classification: Status:		A7NW (SW)	815	-	357848 171448
210	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	Waghorn Guitars 1, Mill Avenue, Bristol, BS1 4AJ Musical Instrument - Manufacturers Active Automatically positioned to the address	A18NE (N)	782	-	358888 172539
210	Contemporary Trad Name: Location: Classification: Status:		A18NE (N)	815	-	358886 172575
210	Contemporary Trad Name: Location: Classification: Status:		A18NE (N)	815	-	358886 172575

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210	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Hobs Reprographics Plc King William House, 13, Queen Square, Bristol, BS1 4NT Copying & Duplicating Services Active Automatically positioned to the address	A18NE (N)	815	-	358886 172575
210	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Anexsys Bristol King William House, 13, Queen Square, Bristol, BS1 4NT Printers Inactive Automatically positioned to the address	A18NE (N)	827	-	358875 172592
211	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Bristol Reclamation 3, Park Road, Southville, Bristol, BS3 1PU Paint & Varnish Stripping Active Automatically positioned to the address	A12NW (W)	785	-	357844 172049
212	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries The Caring Cartridge 7-9, Spring Street Place, Bristol, Avon, BS3 4AF Recycling Centres Inactive Automatically positioned to the address	A14NE (E)	786	-	359387 171901
213	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Ikon Construction Windsor House, Greville Rd, Bristol, Avon, BS3 1LL Concrete Contractors Inactive Manually posi ioned to the address or location	A12SW (W)	795	-	357833 171544
214	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Capital Preservations 20, Dunford Road, Bristol, BS3 4PW Woodworm Control Inactive Automatically positioned to the address	A9SW (SE)	802	-	358948 171056
215	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Pro-Wipe Ltd Huller Ho,Redcliff Backs, Bristol, BS1 6HX Cleaning Materials & Equipment Inactive Manually posi ioned to the road wi hin the address or location	A19NW (NE)	812	-	359020 172508
216	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries S & H Services Ltd 13, Raleigh Road, Bristol, BS3 1QP Washing Machines - Servicing & Repairs Inactive Automatically positioned to the address	A12NW (W)	814	-	357786 171932
217	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries A T Sack Fillers The Mission, Brendon Road, Bristol, BS3 4PX Packaging & Wrapping Equipment & Supplies Inactive Automatically positioned to the address	A8SE (S)	815	-	358858 171006
218	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Beauley Motor Services Ltd Unit 1, Cooperage Lane, Bristol, BS3 1PL Garage Services Inactive Automatically positioned to the address	A12NW (W)	837	-	357778 172008
218	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Brijport Brian Unit 1, Cooperage Lane, Bristol, BS3 1PL Machine Tool Accessories & Services Inactive Automatically positioned to the address	A12NW (W)	837	-	357778 172008
218	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Beauley Motor Services Unit 1, Cooperage Lane, Bristol, BS3 1PL Garage Services Active Automatically positioned to the address	A12NW (W)	839	-	357777 172015

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218	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	Beauley Motor Services Unit 1, Cooperage Lane, Bristol, BS3 1PL Mot Testing Centres Inactive Automatically positioned to the address	A12NW (W)	839	-	357777 172015
218	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	le Directory Entries Karman Autocare Unit 3, Cooperage Lane, Bristol, Avon, BS3 1PL Garage Services Inactive Automatically positioned to the address	A12NW (W)	862	-	357752 172005
218	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	le Directory Entries Skyburst Illuminations Unit 4, Cooperage Lane, Bristol, BS3 1PL Firework Stockists Inactive Automatically positioned to the address	A12NW (W)	862	-	357752 172005
219	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	le Directory Entries Total Care Cleaning Ltd 252, St. Johns Lane, Bristol, Avon, BS3 5AU Commercial Cleaning Services Inactive Automatically positioned to the address	A8SE (S)	842	-	358914 170998
219	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	Linda Bracey Total Cleaning Ltd 252, St. Johns Lane, Bristol, Avon, BS3 5AU Cleaning Services - Domes ic Inactive Automatically positioned to the address	A8SE (S)	842	-	358914 170998
220	Contemporary Trad Name: Location: Classification: Status:		A12NW (W)	856	-	357735 171845
221	Contemporary Trad Name: Location: Classification: Status:		A18NE (N)	860	-	358814 172645
222	Contemporary Trad Name: Location: Classification: Status:		A12SW (W)	866	-	357755 171557
223	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	Westway Municipal Vehicle Hire Flat 1, The Atrium, 60, Redcliff Street, Bristol, Avon, BS1 6LS Waste Disposal Services Inactive Automatically positioned to the address	A19NW (NE)	872	-	359123 172512
224	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	le Directory Entries VRGO 1, Canons Road, Bristol, BS1 5TX Computer Manufacturers Active Automatically positioned to the address	A18NW (N)	874	-	358528 172685
225	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	le Directory Entries Your Choice 210, St. Johns Lane, Bristol, BS3 5AU Window Frames - Sales & Service Inactive Automatically positioned to the address	A9SW (SE)	876	-	359016 171007
226	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	le Directory Entries D L Smythe 28 Gas Ferry Rd, Bristol, BS1 6UN Car Body Repairs Inactive Manually posi ioned to the road wi hin the address or location	A17SW (NW)	877	-	357856 172290

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
226	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Christopher Berry Gas Ferry Road, Bristol, Avon, BS1 6UN Boatbuilders & Repairers Inactive Automatically positioned to the address	A17SW (NW)	899	-	357835 172298
227	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Pest Solutions Ltd Broad Quay House, Broad Quay, Bristol, BS1 4DJ Pest & Vermin Control Inactive Automatically positioned to the address	A18NE (N)	884	-	358622 172697
227	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Uk Cleaning Broad Quay House, Broad Quay, Bristol, BS1 4DJ Commercial Cleaning Services Inactive Automatically positioned to the address	A18NE (N)	884	-	358622 172697
227	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Carbon Gold Broad Quay House,Broad Quay, Bristol, Avon, BS1 4DJ Carbon Products Active Automatically positioned to the address	A18NE (N)	884	-	358622 172697
227	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Uk Cleaning Broad Quay House,Broad Quay, Bristol, Avon, BS1 4DJ Commercial Cleaning Services Inactive Automatically positioned to the address	A18NE (N)	884	-	358622 172697
227	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Pest Solutions Ltd Broad Quay House, Broad Quay, Bristol, BS1 4DJ Pest & Vermin Control Active Automatically positioned to the address	A18NE (N)	884	-	358622 172697
227	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Cycle Therapist Broad Quay House, Broad Quay, Bristol, Avon, BS1 4DJ Motor Cycle Repairs Inactive Manually posi ioned to the address or location	A18NE (N)	884	-	358622 172697
228	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Printech Unit 5B, Cooperage Lane, Bristol, BS3 1PL Printers Inactive Automatically positioned to the address	A12NW (W)	889	-	357724 172005
228	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Simply Car Services Unit 5,Cooperage La, Bristol, BS3 1PL Garage Services Inactive Manually posi ioned to the address or location	A12NW (W)	889	-	357724 172004
228	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Karly Cars Unit 5, Cooperage Lane, Bristol, Avon, BS3 1PL Garage Services Inactive Automatically positioned to the address	A12NW (W)	889	-	357724 172005
229	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Bell Tools 311, St. Johns Lane, Bristol, BS3 5AZ Builders' Tools & Equipment Manufacturers Active Automatically positioned to the address	A8SE (S)	896	-	358809 170909
230	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Roy Coomber 1, Upton Road, Bristol, BS3 1LW Stained Glass Designers & Producers Inactive Automatically positioned to the address	A12NW (W)	896	-	357693 171815

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
230	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries J A C Imports Unit G,1 Upton Rd, Bristol, Avon, BS3 1LW Lingerie & Hosiery Manufacturers & Wholesalers Inactive Manually posi ioned to the address or location	A12NW (W)	897	-	357693 171814
231	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	le Directory Entries Dick Lovett Ltd Portwall Lane, Bristol, Avon, BS1 6NG Car Dealers Inactive Automatically positioned to the address	A19SW (NE)	901	-	359243 172447
231	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	Dick Lovett Portwall Lane, Bristol, Avon, BS1 6NG Car Dealers Inactive Automatically positioned to the address	A19SW (NE)	901	-	359243 172447
231	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Affordable Cleaning 71, St. Thomas Street, Bristol, BS1 6JZ Cleaning Services - Domes ic Inactive Automatically positioned to the address	A19SW (NE)	912	-	359244 172462
231	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	Mailboxes E T C 71, St. Thomas Street, Bristol, BS1 6JZ Freight Forwarders Inactive Automatically positioned to the address	A19SW (NE)	912	-	359244 172462
232	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	Newavon Arms 28, Bedminster Road, Bristol, BS3 5PD Gunsmiths Inactive Automatically positioned to the address	A8SW (S)	902	-	358392 170903
233	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Eurotex Ltd Buchanans Wharf South,Ferry St, Bristol, Avon, BS1 6HJ Clothing & Fabrics - Manufacturers Inactive Manually posi ioned within the geographical locality	A19NW (NE)	904	-	359007 172620
234	Contemporary Trad Name: Location: Classification: Status:		A18NE (N)	912	-	358687 172720
235	Contemporary Trad Name: Location: Classification: Status:		A17SW (NW)	915	-	357774 172222
236	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	le Directory Entries Technical Support Services 29, Ruby Street, Bristol, BS3 3DX Electronic Engineers Inactive Automatically positioned to the address	A7NW (SW)	915	-	357874 171215
237	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	Network Rail Redcliffe Way, Bristol, BS1 6NL Railways Active Automatically positioned to the address	A19SE (NE)	916	-	359344 172352
238	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	k Ager 10, Agate Street, Bristol, BS3 3AG Commercial Cleaning Services Inactive Automatically positioned to the address	A7NW (SW)	918	-	357764 171385

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
239	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Bargain Parking 44 Redcliff Street, Bristol, Avon, BS1 6LL Car Painters & Sprayers Inactive Manually posi ioned within the geographical locality	A19NW (NE)	932	-	359113 172591
239	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Kwik Fit 46, Redcliff Street, Bristol, BS1 6LL Tyre Dealers Inactive Automatically positioned to the address	A19NW (NE)	932	-	359113 172591
239	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	le Directory Entries Bristol Blue Glass Ltd 5, Three Queens Lane, Bristol, BS1 6LG Glass Products - Manufacturers Inactive Automatically positioned to the address	A19NW (NE)	958	-	359144 172602
240	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Smarts Car Sales 171-178, Coronation Road, Sou hville, Bristol, Avon, BS3 1RF Car Dealers - Used Inactive Automatically positioned to the address	A12NW (W)	932	-	357688 172043
240	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Smarts Car Sales Coronation Rd, Southville, Bristol, Avon, BS3 1RF Car Dealers - Used Inactive Manually posi ioned to the road wi hin the address or location	A12NW (W)	975	-	357648 172057
241	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	le Directory Entries Contour Catering Equipment 26, St. Thomas Street, Bristol, BS1 6JZ Catering Equipment Inactive Automatically positioned to the address	A19NW (NE)	950	-	359183 172565
242	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	Robins & Day Clarence Road, Bristol, Avon, BS1 6PR Car Dealers Active Manually posi ioned within the geographical locality	A19SE (E)	952	-	359490 172164
242	Contemporary Trad Name: Location: Classification: Status:		A19SE (E)	952	-	359490 172164
243	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	le Directory Entries Templegate Electrical Supplies Ltd Unit 5, Temple Gate Distribution Centre, Mead Street, Bristol, BS3 4RP Electrical Goods Sales, Manufacturers & Wholesalers Active Automatically positioned to the address	A14NE (E)	962	-	359555 171964
243	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	le Directory Entries European Fleet Management Ltd Mead Rise, Bristol, BS3 4RW Commercial Vehicle Servicing, Repairs, Parts & Accessories Inactive Manually posi ioned to the road wi hin the address or location	A14NE (E)	995	-	359590 171955
244	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	West Street Autobodies Stenners Yard, St. Johns Lane, BRISTOL, BS3 5BD Car Body Repairs Inactive Automatically positioned to the address	A8SW (S)	965	-	358590 170817
245	Contemporary Trad Name: Location: Classification: Status:		A7NW (W)	966	-	357682 171456

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246	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Graphic Image (Business Forms) Ltd Malago House, Bedminster Road, Bristol, BS3 5PE Printers Inactive Automatically positioned to the address	A8SW (S)	969	-	358434 170827
247	Contemporary Trad Name: Location: Classification: Status:	•	A14SE (E)	975	-	359575 171662
248	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Sovereign Corporation Ltd 133, Cumberland Road, Bristol, Avon, BS1 6UX Medical Equipment Manufacturers Inactive Manually posi ioned to the address or location	A17SW (NW)	976	-	357694 172195
248	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries D J L Bakery Systems 133, Cumberland Road, Bristol, Avon, BS1 6UX Catering Equipment - Servicing & Repairs Inactive Manually posi ioned to the address or location	A17SW (NW)	976	-	357694 172195
248	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Engineered Bicycles Ltd Within Spike Design 133, Cumberland Road, Bristol, BS1 6UX Cycle Accessories, Manufacturers & Wholesalers Active Automatically positioned to the address	A17SW (W)	999	-	357664 172182
248	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Spike Print Studios 133, Cumberland Road, Bristol, BS1 6UX Printers Active Automatically positioned to the address	A17SW (W)	999	-	357664 172182
248	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries X O Home 133, Cumberland Road, Bristol, BS1 6UX Automation Systems & Equipment Inactive Automatically positioned to the address	A17SW (W)	999	-	357664 172182
249	Contemporary Trad Name: Location: Classification: Status:	* 1	A18NW (N)	977	-	358482 172784
250	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Blaze Design Ltd Raleigh Rd, Bristol, Avon, BS3 1QU Seating Manufacturers Inactive Manually posi ioned to the road wi hin the address or location	A12SW (W)	984	-	357606 171782
251	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Traditional Boat Supplies Ltd Abels Boatbuilders, Albion Dockside Estate, Hanover Place, Bristol, BS1 6TZ Marine Equipment & Supplies Active Automatically positioned to the address	A17SW (NW)	987	-	357756 172337
251	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Bristol Sails Albion Dockside Estate, Hanover Place, Bristol, BS1 6TZ Sailmakers & Repairers Inactive Automatically positioned to the address	A17SW (NW)	989	-	357736 172309
251	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Force 4 Chandlery Albion Dockside Estate, Hanover Place, Bristol, BS1 6UT Marine Equipment & Supplies Active Automatically positioned to the address	A17SW (NW)	992	-	357735 172313

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252	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries I D G Engineering Ltd Unit 1/3, Albion Dockside Estate, Hanover Place, Bristol, Avon, BS1 6UT Engineers - General Inactive Automatically positioned to the address	A17SW (NW)	989	-	357709 172259
252	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Fuel Equipment Supplies Ltd Unit 1-3, Albion Dockside Estate, Hanover Place, Bristol, Avon, BS1 6UT Pumps - Sales, Servicing & Repairs Inactive Manually posi ioned to the address or location	A17SW (NW)	989	-	357709 172259
252	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries D Abels Albion Dockside Estate, Hanover Place, Bristol, Avon, BS1 6UT Ship Builders, Repairs & Fittings Inactive Automatically positioned to the address	A17SW (NW)	999	-	357695 172253
252	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Glenroy Precision Engineering Ltd Albion Dockside Estate, Hanover Place, Bristol, Avon, BS1 6UT Mechanical Engineers Inactive Automatically positioned to the address	A17SW (NW)	999	-	357695 172253
253	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries United Bristol Healthcare Nhs Trust Martin St, Bristol, Avon, BS3 3EE Hospitals Inactive Manually posi ioned to the address or location	A7NW (SW)	989	-	357717 171320
254	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Apex Cleaning Services Central Telephone Exchange, Telephone Avenue, Bristol, BS1 4BH Cleaning Services - Domes ic Inactive Automatically positioned to the address	A18NE (N)	991	-	358734 172794
254	Contemporary Trad Name: Location: Classification: Status:		A18NE (N)	991	-	358734 172794
254	Contemporary Trad Name: Location: Classification: Status:		A18NE (N)	991	-	358734 172794
254	Contemporary Trad Name: Location: Classification: Status:	•	A18NE (N)	991	-	358734 172794
255	Contemporary Trad Name: Location: Classification: Status:	•	A14NE (E)	997	-	359569 172068
255	Contemporary Trad Name: Location: Classification: Status:		A14NE (E)	997	-	359569 172068
255	Contemporary Trad Name: Location: Classification: Status:		A14NE (E)	997	-	359569 172068

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	Contemporary Trad	-				
255	Name: Location: Classification: Status: Positional Accuracy:	Symonds Forecourts Ltd York Road Service Sta ion, York Road, Bedminster, Bristol, BS3 4AB Petrol Filling Stations Inactive Automatically positioned to the address	A14NE (E)	997	-	359568 172068
256	Fuel Station Entries Name: Location: Brand: Premises Type: Status:	Asda Bristol Bedminster Automat Coronation Road , Bedminster , Bristol, Bristol, City Of, BS3 4JY Asda Hypermarket Open	A13NE (NE)	275	-	358808 171996
	-	Manually posi ioned to the address or location				
257	Fuel Station Entries Name: Location: Brand: Premises Type: Status: Positional Accuracy:	West End Service Station 79, Coronation Road , Southville , Bristol, Bristol, City Of, BS3 1AT Total Not Applicable Obsolete Automatically positioned to the address	A13NW (NW)	357	-	358302 172021
258	Fuel Station Entries Name: Location: Brand: Premises Type: Status: Positional Accuracy:	King William Self Service 92, North Street , Bedminster , Bristol, Bristol, City Of, BS3 1HF Obsolete Not Applicable Obsolete Automatically positioned to the address	A12SE (SW)	684	-	357970 171497
	Fuel Station Entries	3				
259	Name: Location: Brand: Premises Type: Status: Positional Accuracy:	St Johns Lane Service Station 295, St Johns Lane , Bedminster , Bristol, Bristol, City Of, BS3 5AS Obsolete Not Applicable Obsolete Located by supplier to within 100m	A8SE (S)	901	-	358790 170900
260	Fuel Station Entries Name: Location: Brand: Premises Type: Status: Positional Accuracy:	York Road Service Sta ion York Road , Bedminster , Bristol, Bristol, City Of, BS3 4AB Shell Petrol Station Open Manually posi ioned to the address or location	A14NE (E)	997	-	359568 172071
261	Fuel Station Entries Name: Location: Brand: Premises Type: Status:		A17NE (N)	1000	-	358254 172754
262	Name: Location: Category: Class Code:	Commercial Services Lombard Service Station Brook Road, Southville, Bristol, BS3 1AJ Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A13NE (N)	0	10	358603 171808
263	Name: Location: Category: Class Code:	Commercial Services A J Automotive Ltd Unit 1 Windmill Farm Business Centre, Bartley Street, Bristol, BS3 4DB Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A13SE (SE)	177	10	358762 171695
263	Name: Location: Category: Class Code:	Commercial Services Sd Autos Unit 5-6 Windmill Farm Business Centre, Bartley Street, Bristol, BS3 4DB Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A13SE (SE)	186	10	358753 171666
263	Name: Location: Category: Class Code:	Commercial Services Sd Autos Unit 5-6 Windmill Farm Business Centre, Bartley Street, Bristol, BS3 4DB Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A13SE (SE)	186	10	358753 171666

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Points of Interest - C	Commercial Services				
263	Location: Category: Class Code:	T D Garage Services Unit 20 Windmill Farm Business Centre, Bartley Street, Bristol, BS3 4DB Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A13SE (SE)	187	10	358725 171636
263	Location: Category: Class Code:	Commercial Services Premier Autogas Unit 17 Windmill Farm Business Centre, Bartley Street, Bristol, BS3 4DB Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A13SE (SE)	206	10	358748 171630
263	Location: Category: Class Code:	Commercial Services Premier Autogas Unit 17 Windmill Farm Business Centre, Bartley Street, Bristol, BS3 4DB Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A13SE (SE)	206	10	358748 171630
263	Location: Category: Class Code:	Commercial Services Bedminster Motors Services Unit 17 Windmill Farm Business Centre, Bartley Street, Bristol, BS3 4DB Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A13SE (SE)	206	10	358748 171630
263	Location: Category: Class Code:	Commercial Services M S M Motors Unit 16 Windmill Farm Business Centre, Bartley Street, Bristol, BS3 4DB Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A13SE (SE)	214	10	358755 171627
264	Location: Category: Class Code:	Commercial Services Pro-Clean Car Valeting 2-4 Stafford Street, Bedminster, Bristol, Avon, BS3 4DA Personal, Consumer and other Services Vehicle Cleaning Services Positioned to address or location	A13SE (S)	248	10	358616 171534
264	Location: Category: Class Code:	Commercial Services Stafford Street Garage 6-16 Stafford Street, Bristol, BS3 4DA Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A13SE (S)	260	10	358623 171523
264	Location: Category: Class Code:	Commercial Services Stafford Street Garage 6-16 Stafford Street, Bristol, BS3 4DA Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A13SE (S)	260	10	358622 171522
265	Location: Category: Class Code:	Commercial Services Albany Panel Beating Co 6 Albany Buildings, Dean Lane, Bristol, BS3 1BT Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A13NW (NW)	277	10	358368 171976
266	Location: Category: Class Code:	Commercial Services S & B Auto Electrical Services Ferodo House, Willway Street, Bristol, BS3 4BG Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A13SE (E)	295	10	358898 171727
266	Location: Category: Class Code:	Commercial Services S & B Auto Electrical Services Ferodo House, Willway Street, Bristol, BS3 4BG Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A13SE (E)	295	10	358898 171727
267	Location: Category: Class Code:	Commercial Services UK Car Body Ltd 6 Whitehouse Lane, Bristol, BS3 4DW Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A13SE (SE)	323	10	358824 171541

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
267	Name: Location: Category: Class Code:	Commercial Services UK Carbody Ltd 6 Whitehouse Lane, Bedminster, Bristol, BS3 4DW Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A13SE (SE)	324	10	358824 171541
267	Name: Location: Category: Class Code:	Commercial Services Cabot Motors Clarke Street, Bristol, BS3 4DX Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A13SE (SE)	326	10	358791 171513
267	Name: Location: Category: Class Code:	Commercial Services Cabot Motors Ltd Clarke Street, Bristol, BS3 4DX Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A13SE (SE)	326	10	358790 171512
267	Name: Location: Category: Class Code:	Commercial Services Carcraft 103-109 Whitehouse Lane, Bristol, BS3 4DN Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A13SE (SE)	362	10	358818 171487
267	Name: Location: Category: Class Code:	Commercial Services V M S 111-115 Whitehouse Lane, Bristol, BS3 4DN Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A13SE (SE)	373	10	358806 171466
267	Name: Location: Category: Class Code:	Commercial Services Carcraft 103-109 Whitehouse Lane, Bristol, BS3 4DN Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A13SE (SE)	373	10	358807 171466
267	Name: Location: Category: Class Code:	Commercial Services Ashton MOT Centre 103-109 Whitehouse Lane, Bristol, BS3 4DN Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A13SE (SE)	373	10	358807 171466
267	Name: Location: Category: Class Code:	Commercial Services Carcraft Servicing & Mechanical Repairs 103-109 Whitehouse Lane, Bristol, BS3 4DN Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A13SE (SE)	373	10	358806 171466
267	Name: Location: Category: Class Code:	Commercial Services Mildon S Transport Ltd 79-81 Whitehouse Lane, Bristol, BS3 4DN Transport, Storage and Delivery Distribution and Haulage Positioned to address or location	A13SE (SE)	375	10	358865 171510
267	Name: Location: Category: Class Code:	Commercial Services F Kelly 131-135 Whitehouse Lane, Bristol, BS3 4DN Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A8NE (SE)	376	10	358768 171442
267	Name: Location: Category: Class Code:	Commercial Services M J Auto Engineers 83 Whitehouse Lane, Bristol, BS3 4DN Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A13SE (SE)	377	10	358860 171502
267	Name: Location: Category: Class Code:	Commercial Services K G Tyres 119 Whitehouse Lane, Bristol, BS3 4DN Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A8NE (SE)	377	10	358788 171451



Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
267	Name: Location: Category: Class Code:	Commercial Services R J Autos 83 Whitehouse Lane, Bristol, BS3 4DN Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A13SE (SE)	377	10	358860 171502
267	Points of Interest - (Name: Location: Category: Class Code:	Commercial Services R J Autos 83 Whitehouse Lane, Bristol, BS3 4DN Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A13SE (SE)	377	10	358860 171502
267	Name: Location: Category: Class Code:	Commercial Services Yellow Cabs Garage 119 Whitehouse Lane, Bristol, BS3 4DN Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A8NE (SE)	377	10	358788 171451
268	Name: Location: Category: Class Code:	Commercial Services Reclaimers Reclamation The Mill Building, Cumberland Rd, Bristol, Avon, BS1 6XG Recycling Services Recycling, Reclamation and Disposal Positioned to address or location	A13NW (N)	328	10	358523 172134
269	Name: Location: Category: Class Code:	Commercial Services Avon Exhaust Centre 2 North Street, Bedminster, Bristol, BS3 1HT Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A13SW (SW)	366	10	358289 171576
269	Name: Location: Category: Class Code:	Commercial Services Advanced Auto Electrical Booth Road, Bedminster, Bristol, BS3 1BP Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A13SW (SW)	372	10	358270 171595
270	Name: Location: Category: Class Code:	Commercial Services Serjeant Commercials 67-77 Whitehouse Lane, Bristol, BS3 4DN Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A13SE (SE)	378	10	358879 171518
270	Name: Location: Category: Class Code:	Commercial Services Serjeant Commercial Vehicle Repairs Ltd 67-77 Whitehouse Lane, Bristol, BS3 4DN Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A13SE (SE)	379	10	358880 171518
270	Name: Location: Category: Class Code:	Commercial Services Moto-tech Fleet Servicing 43-55 Whitehouse Lane, Bristol, BS3 4DW Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A14SW (SE)	400	10	358940 171559
271	Name: Location: Category: Class Code:	Commercial Services Whitehouse Bodyworks 33-41 Whitehouse Lane, Bristol, BS3 4DW Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A14SW (SE)	421	10	358976 171579
271	Name: Location: Category: Class Code:	Commercial Services Whitehouse Bodyworks 27-41 Whitehouse Lane, Bristol, BS3 4DW Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A14SW (SE)	421	10	358976 171579
271	Name: Location: Category: Class Code:	Commercial Services Vehicle Clinic 27-33 Whitehouse Lane, Bristol, BS3 4DW Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A14SW (SE)	424	10	358981 171581



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
272	Points of Interest - Commercial Services Name: West House Transport S & G Ltd Location: 20 Whitehouse Street, Bristol, BS3 4AY Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A14SW (E)	429	10	359025 171678
272	Points of Interest - Commercial Services Name: West House Transport (S&G) Ltd Location: 20 Whitehouse Street, Bristol, BS3 4AY Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A14SW (E)	429	10	359025 171678
272	Points of Interest - Commercial Services Name: R.Thompson & Son Location: 16 Whitehouse Street, Bedminster, Bristol, BS3 4AY Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A14SW (E)	441	10	359048 171745
272	Points of Interest - Commercial Services Name: Scrap a Car Bristol Location: 1-9 Whitehouse Lane, Bristol, BS3 4DJ Category: Recycling Services Class Code: Scrap Metal Merchants Positional Accuracy: Positioned to address or location	A14SW (E)	490	10	359071 171621
273	Points of Interest - Commercial Services Name: Sa Hand Car Wash Location: 4-10 West Street, Bedminster, Bristol, BS3 3LG Category: Personal, Consumer and other Services Class Code: Vehicle Cleaning Services Positional Accuracy: Positioned to address or location	A8NW (SW)	510	10	358296 171367
274	Points of Interest - Commercial Services Name: Mr Clutch Autocentres Location: Unit 6b, Malago Road, Bristol, BS3 4JQ Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A8NW (S)	513	10	358479 171282
274	Points of Interest - Commercial Services Name: Mr Clutch Autocentres Location: Unit 7, Malago Road, Bristol, BS3 4JQ Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A8NW (S)	518	10	358472 171278
274	Points of Interest - Commercial Services Name: Kwik-Fit (GB) Limited Location: Unit 3, Malago Road, Bristol, BS3 4JQ Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A8NW (S)	559	10	358438 171245
274	Points of Interest - Commercial Services Name: Kwik-Fit (GB) Limited Location: Unit 3, Malago Road, Bristol, BS3 4JQ Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A8NW (S)	560	10	358437 171244
275	Points of Interest - Commercial Services Name: IMO - arc Clean Car Centres Location: Sheene Road, Bristol, BS3 4EG Category: Personal, Consumer and other Services Class Code: Vehicle Cleaning Services Positional Accuracy: Positioned to address or location	A8NW (SW)	521	10	358366 171312
275	Points of Interest - Commercial Services Name: IMO - arc Clean Car Centres Location: Sheene Road, Bristol, BS3 4EG Category: Personal, Consumer and other Services Class Code: Vehicle Cleaning Services Positional Accuracy: Positioned to address or location	A8NW (SW)	522	10	358366 171312
275	Points of Interest - Commercial Services Name: Elite Automotive Services Ltd Location: Unit 3, Sheene Road, Bristol, BS3 4EG Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A8NW (SW)	581	10	358324 171266



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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
275	Category: Personal,	neene Road, Bristol, BS3 4EG Consumer and other Services leaning Services	A8NW (SW)	581	10	358324 171266
275	Location: Unit 3, Sh Category: Repair ar	motive Services leene Road, Bristol, BS3 4EG ld Servicing epair. Testing and Servicing	A8NW (SW)	581	10	358324 171267
275	Location: Unit 3, Sh Category: Repair ar	motive Services Ltd leene Road, Bristol, BS3 4EG d Servicing epair, Testing and Servicing	A8NW (SW)	581	10	358324 171267
275	Category: Personal,	ar Wash leene Road, Bristol, BS3 4EG Consumer and other Services leaning Services	A8NW (SW)	600	10	358348 171234
275	Category: Repair ar	Services leene Road, Bedminster, Bristol, BS3 4ED d Servicing lepair, Testing and Servicing	A8NW (SW)	615	10	358312 171234
275	Category: Repair ar	cross Ltd eene Court Industrial Estate, Sheene Road, Bristol, BS3 4EG d Servicing epair, Testing and Servicing	A8NW (SW)	616	10	358311 171234
276	Location: Chaplin F Category: Construct	abrications abrications Iron Masters 12a, Cotswold Road, Bristol, BS3 4NT ion Services kers Including Blacksmiths	A8NE (S)	568	10	358636 171215
277	Category: Repair ar	care Ltd itehouse Place, Bristol, BS3 4BL d Servicing epair, Testing and Servicing	A14NW (E)	609	10	359213 171871
277	Category: Repair ar	tomotive itehouse Place, Bedminster, Bristol, BS3 4BL d Servicing epair, Testing and Servicing	A14NW (E)	610	10	359214 171871
277	Category: Repair ar	care Ltd nouse Place, Bristol, BS3 4BL d Servicing epair, Testing and Servicing	A14NW (E)	610	10	359214 171871
277	Category: Personal,	nart itehouse Place, Bristol, BS3 4BL Consumer and other Services leaning Services	A14NW (E)	610	10	359214 171871
278	Category: Repair ar	est Street, Bedminster, Bristol, BS3 3NS d Servicing epair, Testing and Servicing	A7NE (SW)	617	10	358233 171280



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Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
278	Points of Interest - Commercial Services Name: Jamieson Auto Engineers Location: 39-41 West Street, Bedminster, Bristol, BS3 3NS Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A7NE (SW)	620	10	358230 171278
278	Points of Interest - Commercial Services Name: 54 West Street Ltd Location: 54 West Street, Bedminster, Bristol, BS3 3LH Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A7NE (SW)	631	10	358187 171298
278	Points of Interest - Commercial Services Name: Marsh Lane Bodyworks Location: 53-55 British Road, Bristol, BS3 3BT Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A7NE (SW)	634	10	358168 171310
278	Points of Interest - Commercial Services Name: Marsh Lane Bodyworks Location: 53-55 British Road, Bristol, BS3 3BT Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A7NE (SW)	634	10	358168 171310
278	Points of Interest - Commercial Services Name: Marsh Lane Bodyworks Location: 53-55 British Road, Bristol, BS3 3BT Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A7NE (SW)	634	10	358168 171310
279	Points of Interest - Commercial Services Name: Vee W Services Location: Unit 2, Princess Street, Bedminster, Bristol, BS3 4AG Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A14SW (E)	619	10	359226 171746
280	Points of Interest - Commercial Services Name: Hinton Rescue Location: Unit D Malago Vale Trading Estate, St. Johns Lane, Bris Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	tol, BS3 5BQ A8NW (S)	634	10	358509 171154
280	Points of Interest - Commercial Services Name: Bedminster Motor Services Location: Unit C Malago Vale Trading Estate, St. Johns Lane, Bris Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	tol, BS3 5BQ A8SW (S)	674	10	358472 171119
281	Points of Interest - Commercial Services Name: K S Bodyworks Location: Camden Road, Bristol, BS3 1QA Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12NE (W)	651	10	357980 172036
282	Points of Interest - Commercial Services Name: V E E W Services Ltd Spring Street Location: Unit 1 5, Victoria Grove, Bristol, BS3 4AN Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A14NE (E)	675	10	359280 171864
282	Points of Interest - Commercial Services Name: C T Garages Location: Victoria Grove, Bristol, BS3 4AN Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A14NE (E)	699	10	359304 171868
282	Points of Interest - Commercial Services Name: C T Garages Location: Victoria Grove, Bristol, BS3 4AN Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A14NE (E)	712	10	359316 171872



Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
282	Name: Location: Category: Class Code:	Commercial Services V W Services Princess Street, Bedminster, Bristol, Avon, BS3 4AG Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A14NE (E)	742	10	359341 171911
282	Name: Location: Category: Class Code:	Commercial Services V W Services Unit 1 Spring House, Spring St, Bedminster, Bristol, Avon, BS3 4PZ Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A14NE (E)	743	10	359342 171913
282	Name: Location: Category: Class Code:	Commercial Services Templegate Peugeot Spring House, Spring Street, Bedminster, Bristol, BS3 4PZ Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A14NE (E)	745	10	359343 171914
283	Name: Location: Category: Class Code:	Commercial Services M & M Deliveries 27 Cromwell Street, Bristol, BS3 3NT Transport, Storage and Delivery Distribution and Haulage Positioned to address or location	A7NE (SW)	682	10	358206 171220
284	Name: Location: Category: Class Code:	Commercial Services Beauley Motor Services 52a Beauley Road, Bristol, BS3 1PY Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A12NW (W)	709	10	357887 171897
284	Name: Location: Category: Class Code:	Commercial Services Beauley Motor Services 52a Beauley Road, Bristol, BS3 1PY Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A12NW (W)	709	10	357887 171897
284	Name: Location: Category: Class Code:	Commercial Services Beauley Motor Services 52a Beauley Road, Bristol, BS3 1PY Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A12NW (W)	709	10	357887 171897
285	Name: Location: Category: Class Code:	Commercial Services Bristol Interior Trim Centre 125g Cotswold Road, Bristol, BS3 4PH Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A8SE (S)	784	10	358738 171009
286	Name: Location: Category: Class Code:	Commercial Services Crago Motors Exmoor Street, Bristol, BS3 1HD Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A7NW (SW)	823	10	357841 171445
286	Name: Location: Category: Class Code:	Commercial Services Crago Motors Exmoor Street, Bristol, BS3 1HD Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A7NW (SW)	823	10	357841 171444
287	Name: Location: Category: Class Code:	Commercial Services Don Williams Unit 1, Cooperage Lane, Bristol, BS3 1PL Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A12NW (W)	837	10	357778 172008
287	Name: Location: Category: Class Code:	Commercial Services Beauley Motor Services Unit 1, Cooperage Lane, Bristol, BS3 1PL Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A12NW (W)	838	10	357777 172007



Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
287	Location: Category: Class Code:	Commercial Services Beauley Motor Services Unit 1, Cooperage Lane, Bristol, BS3 1PL Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A12NW (W)	839	10	357777 172015
288	Location: Category: Class Code:	Commercial Services Cycle Therapist Broad Quay House, Broad Quay, Bristol, BS1 4DJ Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A18NE (N)	884	10	358622 172697
288	Location: Category: Class Code:	Commercial Services Pest Solutions Ltd Broad Quay House, Broad Quay, Bristol, BS1 4DJ Contract Services Pest and Vermin Control Positioned to address or location	A18NE (N)	884	10	358622 172697
289	Location: Category: Class Code:	B V S 122 West Street, Bedminster, Bristol, BS3 3LT Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A7SE (SW)	897	10	358048 171069
289	Location: Category: Class Code:	B V S Southwest Ltd 122 West Street, Bedminster, Bristol, BS3 3LT Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A7SE (SW)	897	10	358048 171069
290	Location: Category: Class Code:	Commercial Services Mailboxes E T C 71 St. Thomas Street, Bristol, BS1 6JZ Transport, Storage and Delivery Distribution and Haulage Positioned to address or location	A19SW (NE)	912	10	359244 172462
290	Location: Category: Class Code:	Forward Bird Control - National 63 St. Thomas Street, Bristol, BS1 6JZ Contract Services Pest and Vermin Control Positioned to address or location	A19NW (NE)	947	10	359232 172520
291	Location: Category: Class Code:	Commercial Services Kwik-Fit (GB) Limited 46 Redcliff Street, Bristol, BS1 6LL Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A19NW (NE)	932	10	359113 172591
292	Location: Category: Class Code:	Commercial Services Car Wash York Road Service Sta ion, York Road, Bedminster, Bristol, BS3 4AB Personal, Consumer and other Services Vehicle Cleaning Services Positioned to address or location	A14NE (E)	997	10	359568 172071
292	Location: Category: Class Code:	Commercial Services York Road Service Sta ion York Road Service Sta ion, York Road, Bedminster, Bristol, BS3 4AB Personal, Consumer and other Services Vehicle Cleaning Services Positioned to address or location	A14NE (E)	997	10	359568 172071
293	Location: Category: Class Code:	Education and Health 48 Coronation Road 48 Coronation Road, Southville, Bristol, BS3 1AR Health Practitioners and Establishments Hospitals Positioned to address or location	A13NE (N)	164	10	358633 171972
294	Location: Category: Class Code:	Education and Health The Southville Surgery 67 Coronation Road, Southville, Bristol, BS3 1AS Health Practitioners and Establishments Hospitals Positioned to address or location	A13NW (NW)	252	10	358415 171992



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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
295	Name: Location: Category: Class Code:	Education and Health Susan Britton Wills Day Centre Bristol General Hospital, Guinea Street, Bristol, BS1 6SY Health Practitioners and Establishments Hospitals Positioned to address or location	A13NE (NE)	384	10	358845 172110
295	Points of Interest - I Name: Location: Category: Class Code:	Education and Health Bristol General Hospital Bristol General Hospital, Guinea Street, Bristol, BS1 6SY Health Practitioners and Establishments Hospitals Positioned to address or location	A13NE (NE)	384	10	358845 172110
295	Name: Location: Category: Class Code:	Education and Health Bristol General Hospital Bristol General Hospital, Guinea Street, Bristol, BS1 6SY Health Practitioners and Establishments Hospitals Positioned to address or location	A13NE (NE)	384	10	358845 172110
296	Name: Location: Category: Class Code:	Education and Health The Malago Surgery 40 St. Johns Road, Bedminster, Bristol, BS3 4JE Health Practitioners and Establishments Hospitals Positioned to address or location	A8NW (SW)	452	10	358403 171371
297	Name: Location: Category: Class Code:	Education and Health United Bristol Healthcare NHS Trust Martin St, Bristol, Avon, BS3 3EE Health Practitioners and Establishments Hospitals Positioned to address or location	A7NW (SW)	989	10	357717 171320
298	Name: Location: Category: Class Code:	Manufacturing and Production Business Centre BS3 Industrial Features Business Parks and Industrial Estates Positioned to an adjacent address or location	A13SE (SE)	202	10	358759 171648
299	Name: Location: Category: Class Code:	Manufacturing and Production Works Not Supplied Industrial Features Unspecified Works Or Factories Positioned to an adjacent address or location	A13SW (SW)	238	10	358477 171573
300	Name: Location: Category: Class Code:	Manufacturing and Production Works Not Supplied Industrial Features Unspecified Works Or Factories Positioned to an adjacent address or location	A13SE (E)	269	10	358877 171796
300	Name: Location: Category: Class Code:	Manufacturing and Production Works BS3 Industrial Features Unspecified Works Or Factories Positioned to an adjacent address or location	A13SE (E)	269	10	358877 171797
300	Name: Location: Category: Class Code:	Manufacturing and Production Works BS3 Industrial Features Unspecified Works Or Factories Positioned to an adjacent address or location	A13NE (E)	288	10	358895 171817
300	Name: Location: Category: Class Code:	Manufacturing and Production Works BS3 Industrial Features Unspecified Works Or Factories Positioned to an adjacent address or location	A13NE (E)	305	10	358910 171843
300	Name: Location: Category: Class Code:	Manufacturing and Production Tank BS3 Industrial Features Tanks (Generic) Positioned to address or location	A14SW (E)	331	10	358937 171748



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Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
301	Points of Interest - Manufacturing and Production Name: Works Location: BS3 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A13SW (S)	271	10	358583 171512
301	Points of Interest - Manufacturing and Production Name: Works Location: BS3 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A13SW (S)	304	10	358591 171478
302	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A13SW (SW)	295	10	358384 171573
302	Points of Interest - Manufacturing and Production Name: Works Location: BS3 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A13SW (SW)	296	10	358381 171574
303	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A13SE (E)	309	10	358907 171704
303	Points of Interest - Manufacturing and Production Name: Works Location: BS3 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A13SE (E)	309	10	358907 171704
304	Points of Interest - Manufacturing and Production Name: Old Jail Workshops Location: BS1 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A13NW (NW)	321	10	358437 172094
305	Points of Interest - Manufacturing and Production Name: St Catherine's Industrial Estate Location: BS3 Category: Industrial Features Class Code: Business Parks and Industrial Estates Positional Accuracy: Positioned to an adjacent address or location	A13SE (SE)	328	10	358751 171487
306	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A12SE (W)	338	10	358253 171772
306	Points of Interest - Manufacturing and Production Name: Works Location: BS3 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A12SE (W)	338	10	358253 171771
307	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A13SW (SW)	369	10	358272 171597
307	Points of Interest - Manufacturing and Production Name: Works Location: BS3 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A13SW (SW)	370	10	358272 171596



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Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
308	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A12SE (W)	375	10	358220 171728
308	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A12SE (W)	399	10	358206 171678
309	Points of Interest - Manufacturing and Production Name: Works Location: BS3 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A8NW (SW)	400	10	358399 171432
310	Points of Interest - Manufacturing and Production Name: Industrial Estate Location: BS3 Category: Industrial Features Class Code: Business Parks and Industrial Estates Positional Accuracy: Positioned to an adjacent address or location	A13SE (SE)	403	10	358929 171538
311	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A14SW (E)	415	10	359016 171709
311	Points of Interest - Manufacturing and Production Name: Works Location: BS3 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to address or location	A14SW (E)	418	10	359020 171711
311	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A14SW (E)	430	10	359024 171673
311	Points of Interest - Manufacturing and Production Name: Works Location: BS3 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A14SW (E)	430	10	359024 171674
311	Points of Interest - Manufacturing and Production Name: Tank Location: BS3 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A14SW (E)	443	10	359041 171688
311	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A14SW (E)	453	10	359054 171702
311	Points of Interest - Manufacturing and Production Name: Works Location: BS3 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A14SW (E)	453	10	359054 171702
312	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A8NW (S)	459	10	358590 171323



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Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
312	Points of Interest - Manufacturing and Production Name: Works Location: BS3 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A8NW (S)	459	10	358590 171323
313	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A14SW (E)	464	10	359071 171762
314	Points of Interest - Manufacturing and Production Name: Works Location: BS3 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A14SW (E)	465	10	359072 171762
314	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A14NW (E)	541	10	359149 171803
315	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A18SE (NE)	529	10	358895 172252
316	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A7NE (SW)	635	10	358163 171313
316	Points of Interest - Manufacturing and Production Name: Works Location: BS3 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A7NE (SW)	635	10	358163 171313
317	Points of Interest - Manufacturing and Production Name: Works Location: BS3 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A12SE (SW)	678	10	357967 171518
317	Points of Interest - Manufacturing and Production Name: Works Location: BS3 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A12SE (SW)	680	10	357975 171495
318	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A14NE (E)	734	10	359342 171798
318	Points of Interest - Manufacturing and Production Name: Works Location: BS3 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A14NE (E)	734	10	359342 171798
319	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A17SE (NW)	766	10	357928 172195



Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
319	Class Code: Unspecif	Features ed Works Or Factories d to an adjacent address or location	A17SE (NW)	766	10	357928 172195
320	Location: Greville I Category: Industria	House Associates Road, Bristol, BS3 1LE Features Parks and Industrial Estates	A12SW (W)	794	10	357834 171544
320	Class Code: Unspecif	-	A12SW (W)	811	10	357813 171556
320	Class Code: Unspecif	Features ed Works Or Factories d to an adjacent address or location	A12SW (W)	811	10	357813 171556
321	Class Code: Unspecif	_	A7SE (SW)	797	10	358192 171092
321	Class Code: Unspecif	•	A7SE (SW)	838	10	358235 171024
321	Class Code: Unspecif	Features ed Works Or Factories d to an adjacent address or location	A7SE (SW)	838	10	358235 171024
322	Class Code: Unspecif	-	A8SE (S)	805	10	358805 171002
322	Class Code: Unspecif	•	A8SE (S)	817	10	358852 171002
322	Class Code: Unspecif	Features ed Works Or Factories d to an adjacent address or location	A8SE (S)	817	10	358852 171002
323		ive Milk Producers Ltd luay House, Narrow Quay, Bristol, BS1 4AH Farming	A18NE (N)	832	10	358625 172644
323	Category: Industria	K) Ltd lay House, Broad Quay, Bristol, BS1 4DJ Features Parks and Industrial Estates	A18NE (N)	884	10	358622 172697



Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
323	Points of Interest - I	Manufacturing and Production Regus	A18NE	884	10	358622
	Location: Category: Class Code: Positional Accuracy:	Broad Quay House, Broad Quay, Bristol, BS1 4DJ Industrial Features Business Parks and Industrial Estates Positioned to address or location	(N)			172697
323	Name: Location: Category: Class Code:	Manufacturing and Production Start Anywhere Venturers House, Prince Street, Bristol, BS1 4PB Industrial Features Business Parks and Industrial Estates Positioned to address or location	A18NE (N)	908	10	358682 172717
323	Name: Location: Category: Class Code:	Manufacturing and Production Start International Venturers House, Prince Street Roundabout, Bristol, BS1 4PB Industrial Features Business Parks and Industrial Estates Positioned to address or location	A18NE (N)	912	10	358687 172720
323	Name: Location: Category: Class Code:	Manufacturing and Production Roger Perrins Venturers House, King Street, Bristol, BS1 4PB Industrial Features Business Parks and Industrial Estates Positioned to address or location	A18NE (N)	912	10	358687 172720
324	Name: Location: Category: Class Code:	Manufacturing and Production Works Not Supplied Industrial Features Unspecified Works Or Factories Positioned to an adjacent address or location	A12NW (W)	839	10	357777 172013
324	Name: Location: Category: Class Code:	Manufacturing and Production Works BS3 Industrial Features Unspecified Works Or Factories Positioned to an adjacent address or location	A12NW (W)	839	10	357777 172013
324	Name: Location: Category: Class Code:	Manufacturing and Production Works Not Supplied Industrial Features Unspecified Works Or Factories Positioned to an adjacent address or location	A12NW (W)	864	10	357751 172010
324	Name: Location: Category: Class Code:	Manufacturing and Production Works BS3 Industrial Features Unspecified Works Or Factories Positioned to an adjacent address or location	A12NW (W)	864	10	357751 172010
325	Name: Location: Category: Class Code:	Manufacturing and Production Phidias Neo (Classical) Ltd 123 Cumberland Road, Bristol, BS1 6UG Extractive Industries Stone Quarrying and Preparation Positioned to address or location	A17SW (NW)	849	10	357834 172196
325	Name: Location: Category: Class Code:	Manufacturing and Production Phidias Neo Classical Ltd 123 Cumberland Road, Bristol, BS1 6UG Extractive Industries Stone Quarrying and Preparation Positioned to address or location	A17SW (NW)	849	10	357834 172196
326	Name: Location: Category: Class Code:	Manufacturing and Production MIs Business Centres Ltd 66 Queen Square, Bristol, BS1 4JP Industrial Features Business Parks and Industrial Estates Positioned to address or location	A18NE (N)	863	10	358712 172668
326	Name: Location: Category: Class Code:	Manufacturing and Production MIs Business Centres South West 66 Queen Square, Bristol, BS1 4JP Industrial Features Business Parks and Industrial Estates Positioned to address or location	A18NE (N)	864	10	358712 172668



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
327	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A14NE (E)	905	10	359492 171994
327	Points of Interest - Manufacturing and Production Name: Works Location: BS3 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A14NE (E)	907	10	359492 172003
327	Points of Interest - Manufacturing and Production Name: Wks Location: BS3 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to address or location	A14NE (E)	913	10	359500 171995
328	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A17SW (NW)	946	10	357800 172330
328	Points of Interest - Manufacturing and Production Name: Works Location: BS1 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A17SW (NW)	946	10	357800 172330
328	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A17SW (NW)	965	10	357751 172287
328	Points of Interest - Manufacturing and Production Name: Works Location: BS1 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A17SW (NW)	965	10	357751 172287
328	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A17SW (NW)	970	10	357780 172344
328	Points of Interest - Manufacturing and Production Name: Works Location: BS1 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A17SW (NW)	970	10	357780 172344
328	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A17SW (NW)	986	10	357738 172306
328	Points of Interest - Manufacturing and Production Name: Works Location: BS1 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A17SW (NW)	986	10	357738 172306
328	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A17SW (NW)	996	10	357733 172317



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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
328	Name: Location: Category: Class Code:	Manufacturing and Production Works BS1 Industrial Features Unspecified Works Or Factories Positioned to an adjacent address or location	A17SW (NW)	996	10	357733 172317
329	Name: Location: Category: Class Code:	Manufacturing and Production Tank BS3 Industrial Features Tanks (Generic) Positioned to an adjacent address or location	A7SE (S)	966	10	358242 170882
330	Name: Location: Category: Class Code:	Manufacturing and Production Works Not Supplied Industrial Features Unspecified Works Or Factories Positioned to an adjacent address or location	A14NE (E)	989	10	359591 171903
330	Name: Location: Category: Class Code:	Manufacturing and Production Works BS3 Industrial Features Unspecified Works Or Factories Positioned to an adjacent address or location	A14NE (E)	989	10	359591 171902
331	Category: Class Code:	Public Infrastructure Sluice BS1 Water Weirs, Sluices and Dams Positioned to an adjacent address or location	A13NE (N)	214	10	358653 172018
331	Category: Class Code:	Public Infrastructure Dam BS1 Water Weirs, Sluices and Dams Positioned to an adjacent address or location	A13NE (N)	291	10	358652 172098
332	Location: Category: Class Code:	Public Infrastructure Sluice BS3 Water Weirs, Sluices and Dams Positioned to an adjacent address or location	A13SE (SE)	248	10	358791 171615
333	Location: Category: Class Code:	Asda Petrol East Street, Bedminster, Bristol, BS3 4JY Road And Rail Petrol and Fuel Stations Positioned to address or location	A13NE (NE)	269	10	358805 171990
333	Location: Category: Class Code:	Public Infrastructure Asda Bristol Bedminster Automat Coronation Road, Bedminster, Bristol, BS3 4JY Road And Rail Petrol and Fuel Stations Positioned to address or location	A13NE (NE)	275	10	358808 171996
334	Location: Category: Class Code:	Public Infrastructure Bedminster Rail Station Fraser Street, BS3 Public Transport, Stations and Infrastructure Railway Stations, Junctions and Halts Positioned to address or location	A8NE (SE)	405	10	358784 171417
334	Category: Class Code:	Public Infrastructure Bedminster Station Fraser Street, BS3 Public Transport, Stations and Infrastructure Railway Stations, Junctions and Halts Positioned to address or location	A8NE (SE)	405	10	358784 171417
335	Location: Category: Class Code:	Public Infrastructure Burial Ground Not Supplied Infrastructure and Facilities Cemeteries and Crematoria Positioned to an adjacent address or location	A7NE (SW)	497	10	358217 171456



Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
335	Name: Location: Category: Class Code:	Public Infrastructure Burial Ground BS3 Infrastructure and Facilities Cemeteries and Crematoria Positioned to an adjacent address or location	A7NE (SW)	497	10	358217 171456
336	Name: Location: Category: Class Code:	Public Infrastructure Outfalls BS1 Infrastructure and Facilities Waste Storage, Processing and Disposal Positioned to an adjacent address or location	A12NE (NW)	597	10	358077 172115
337	Name: Location: Category: Class Code:	Public Infrastructure Burial Ground Not Supplied Infrastructure and Facilities Cemeteries and Crematoria Positioned to an adjacent address or location	A7NE (SW)	612	10	358112 171402
337	Name: Location: Category: Class Code:	Public Infrastructure Burial Ground BS3 Infrastructure and Facilities Cemeteries and Crematoria Positioned to an adjacent address or location	A7NE (SW)	621	10	358101 171401
338	Name: Location: Category: Class Code:	Public Infrastructure Alex's Rubbish Clearance Flat 8 Norton House, Ship Lane, Bristol, BS1 6RW Infrastructure and Facilities Waste Storage, Processing and Disposal Positioned to address or location	A14NW (NE)	625	10	359159 172102
339	Name: Location: Category: Class Code:	Public Infrastructure Community Recycling Network 57 Prince Street, Bristol, BS1 4QH Infrastructure and Facilities Recycling Centres Positioned to address or location	A18SE (N)	653	10	358648 172463
340	Name: Location: Category: Class Code:	Public Infrastructure Sluices BS3 Water Weirs, Sluices and Dams Positioned to an adjacent address or location	A8SW (S)	734	10	358476 171058
340	Name: Location: Category: Class Code:	Public Infrastructure St John's Burial Ground Not Supplied Infrastructure and Facilities Cemeteries and Crematoria Positioned to an adjacent address or location	A8SW (S)	740	10	358519 171046
340	Name: Location: Category: Class Code:	Public Infrastructure St John's Burial Ground BS3 Infrastructure and Facilities Cemeteries and Crematoria Positioned to an adjacent address or location	A8SW (S)	745	10	358506 171042
340	Name: Location: Category: Class Code:	Public Infrastructure St Johns Burial Ground Not Supplied Infrastructure and Facilities Cemeteries and Crematoria Positioned to an adjacent address or location	A8SW (S)	790	10	358510 170997
341	Name: Location: Category: Class Code:	Public Infrastructure The Caring Cartridge 7-9 Spring Street Place, Bristol, BS3 4AF Infrastructure and Facilities Recycling Centres Positioned to address or location	A14NE (E)	786	10	359387 171901
341	Name: Location: Category: Class Code:	Public Infrastructure Replicate Office Services Ltd 7-9 Spring Street Place, Bristol, BS3 4AF Infrastructure and Facilities Recycling Centres Positioned to address or location	A14NE (E)	786	10	359387 171901



Map ID	D	etails	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
341	Points of Interest - Public Infrastructure Name: Caring Cartridge Location: 7-9 Spring Street Place, E Category: Infrastructure and Facilitie Class Code: Recycling Centres Positional Accuracy: Positioned to address or le	S	A14NE (E)	786	10	359387 171901
342	Points of Interest - Public Infrastructure Name: Alpha Clearance Location: Flat 1 St. Johns Court 300 Category: Infrastructure and Facilitie Class Code: Waste Storage, Processin Positional Accuracy: Positioned to address or le	ig and Disposal	A8SE (S)	851	10	358766 170946
343	Points of Interest - Public Infrastructure Name: Westway Municipal Vehic Location: Flat 1 The Atrium 60, Red Category: Infrastructure and Facilitie Class Code: Waste Storage, Processir Positional Accuracy: Positioned to address or le	cliff Street, Bristol, BS1 6LS es eg and Disposal	A19NW (NE)	872	10	359123 172512
344	Points of Interest - Public Infrastructure Name: Symonds Forecourts Ltd Location: York Road Service Sta ior Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or le	n, York Road, Bedminster, Bristol, BS3 4AB	A14NE (E)	996	10	359568 172068
344	Points of Interest - Public Infrastructure Name: York Road Service Sta ior Location: York Road, Bedminster, B Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or le	tristol, Avon, BS3 4AB	A14NE (E)	996	10	359568 172068
344	Points of Interest - Public Infrastructure Name: Shell Service Station Location: York Road Service Station Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or le	n, York Road, Bedminster, Bristol, BS3 4AB	A14NE (E)	997	10	359569 172068
344	Points of Interest - Public Infrastructure Name: York Road Service Sta ior Location: York Road Service Sta ior Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or le	n, York Road, Bedminster, Bristol, BS3 4AB	A14NE (E)	997	10	359568 172071
345	Points of Interest - Recreational and Environ Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent		A13SE (E)	259	10	358852 171694
345	Points of Interest - Recreational and Environ Name: Playground Location: Philip Street, BS3 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or le		A13SE (E)	259	10	358853 171698
345	Points of Interest - Recreational and Environ Name: Play Area Location: Philip Street, BS3 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent		A13SE (SE)	306	10	358874 171631
345	Points of Interest - Recreational and Environ Name: Play Area Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent		A13SE (SE)	310	10	358880 171634
346	Points of Interest - Recreational and Environ Name: Playground Location: Whitehouse Lane, BS3 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent		A14SW (SE)	449	10	358965 171509



Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
346	Name: Location: Category: Class Code:	Recreational and Environmental Play Area Not Supplied Recreational Playgrounds Positioned to an adjacent address or location	A14SW (SE)	450	10	358943 171482
346	Name: Location: Category: Class Code:	Recreational and Environmental Play Area Fraser Street, BS3 Recreational Playgrounds Positioned to address or location	A14SW (SE)	456	10	358963 171496
346	Name: Location: Category: Class Code:	Recreational and Environmental Playground Not Supplied Recreational Playgrounds Positioned to an adjacent address or location	A14SW (SE)	459	10	358966 171495
346	Name: Location: Category: Class Code:	Recreational and Environmental Playground Whitehouse Lane, BS3 Recreational Playgrounds Positioned to an adjacent address or location	A14SW (SE)	459	10	358966 171495
347	Name: Location: Category: Class Code:	Recreational and Environmental Play Area Not Supplied Recreational Playgrounds Positioned to an adjacent address or location	A8NE (S)	449	10	358719 171347
348	Name: Location: Category: Class Code:	Recreational and Environmental Playground Not Supplied Recreational Playgrounds Positioned to an adjacent address or location	A13NE (NE)	454	10	358930 172128
348	Name: Location: Category: Class Code:	Recreational and Environmental Play Area Nr Commercial Road, BS1 Recreational Playgrounds Positioned to address or location	A13NE (NE)	456	10	358931 172129
349	Name: Location: Category: Class Code:	Recreational and Environmental Playground Not Supplied Recreational Playgrounds Positioned to an adjacent address or location	A7NE (SW)	714	10	358061 171304
349	Name: Location: Category: Class Code:	Recreational and Environmental Playground Palmerston Street, BS3 Recreational Playgrounds Positioned to an adjacent address or location	A7NE (SW)	714	10	358061 171304
350	Name: Location: Category: Class Code:	Recreational and Environmental Queen Square Old City, Bristol, City of Bristol, BS1 4LH Recreational Municipal Parks And Gardens Positioned to address or location	A18NE (N)	768	10	358771 172560
350	Name: Location: Category: Class Code:	Recreational and Environmental Queen Square Old City, Bristol, City of Bristol, BS1 4LH Recreational Municipal Parks And Gardens Positioned to address or location	A18NE (N)	770	10	358779 172560
351	Name: Location: Category: Class Code:	Recreational and Environmental Playground Prewett Street, BS1 Recreational Playgrounds Positioned to address or location	A19SE (NE)	774	10	359275 172198



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Points of Interest - Recreational and Environmental				
351	Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A19SE (NE)	788	10	359303 172176
	Points of Interest - Recreational and Environmental				
351	Name: Playground Location: Somerset Square, BS1 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A19SE (NE)	788	10	359303 172178
	Points of Interest - Recreational and Environmental				
352	Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A14SE (E)	816	10	359422 171728
	Points of Interest - Recreational and Environmental				
352	Name: Playground Location: St Luke'S Road, BS3 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A14SE (E)	816	10	359422 171728
	Points of Interest - Recreational and Environmental				
353	Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A9NE (SE)	871	10	359363 171348
	Points of Interest - Recreational and Environmental				
353	Name: Playground Location: Hill Avenue, BS3 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A9NE (SE)	876	10	359370 171349



Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices		
South Gloucestershire Council - Environmental Services Department	January 2015	Annual Rolling Update
Bristol City Council - Environmental Health Department	March 2014	Annual Rolling Update
Bath and North East Somerset Council - Environmental Health Department	October 2014	Annual Rolling Update
North Somerset Council - Environmental Health Department	September 2014	Annual Rolling Update
Discharge Consents	h.h. 2040	Over at a site.
Environment Agency - South West Region	July 2018	Quarterly
Enforcement and Prohibition Notices	March 2012	A a natified
Environment Agency - South West Region	March 2013	As notified
Integrated Pollution Controls	0.11.0000	
Environment Agency - South West Region	October 2008	Variable
Integrated Pollution Prevention And Control		
Environment Agency - South West Region	July 2018	Quarterly
Local Authority Integrated Pollution Prevention And Control		
Bath and North East Somerset Council - Environmental Health Department	February 2015	Variable
Bristol City Council - Environmental Health Department	February 2015	Variable
South Gloucestershire Council - Environmental Services Department	January 2015	Variable
North Somerset Council - Environmental Health Department	September 2013	Variable
Local Authority Pollution Prevention and Controls		
Bath and North East Somerset Council - Environmental Health Department	February 2015	Annual Rolling Update
Bristol City Council - Environmental Health Department	February 2015	Annual Rolling Update
South Gloucestershire Council - Environmental Services Department	January 2015	Annual Rolling Update
North Somerset Council - Environmental Health Department	March 2015	Annual Rolling Update
Local Authority Pollution Prevention and Control Enforcements	Fahruary 2015	\ /awiahla
Bath and North East Somerset Council - Environmental Health Department	February 2015	Variable
Bristol City Council - Environmental Health Department	February 2015	Variable
South Gloucestershire Council - Environmental Services Department	January 2015	Variable
North Somerset Council - Environmental Health Department	September 2013	Variable
Nearest Surface Water Feature Ordnance Survey	September 2017	
	Geptember 2017	+
Pollution Incidents to Controlled Waters	Contember 1000	Not Applicable
Environment Agency - South West Region	September 1999	Not Applicable
Prosecutions Relating to Authorised Processes		
Environment Agency - South West Region	March 2013	As notified
Prosecutions Relating to Controlled Waters		
Environment Agency - South West Region	March 2013	As notified
Registered Radioactive Substances		
Environment Agency - South West Region	January 2015	
River Quality		
Environment Agency - Head Office	November 2001	Not Applicable
River Quality Biology Sampling Points		
Environment Agency - Head Office	July 2012	Annually
River Quality Chemistry Sampling Points		
Environment Agency - Head Office	July 2012	Annually
	541, 2012	, unidally
Substantiated Pollution Incident Register	1.4.0040	0
Environment Agency - South West Region - North Wessex Area	July 2018	Quarterly
Environment Agency - South West Region - Wessex Area	July 2018	Quarterly
Water Abstractions		
Environment Agency - South West Region	July 2018	Quarterly
Water Industry Act Referrals		
Environment Agency - South West Region	October 2017	Quarterly



Agency & Hydrological	Version	Update Cycle
Groundwater Vulnerability		
Environment Agency - Head Office	April 2015	Not Applicable
Drift Deposits		
Environment Agency - Head Office	January 1999	Not Applicable
Bedrock Aquifer Designations		
British Geological Survey - National Geoscience Information Service	August 2015	As notified
Superficial Aquifer Designations		
British Geological Survey - National Geoscience Information Service	August 2015	As notified
Source Protection Zones		
Environment Agency - Head Office	January 2018	Quarterly
Extreme Flooding from Rivers or Sea without Defences		
Environment Agency - Head Office	May 2018	Quarterly
Flooding from Rivers or Sea without Defences		
Environment Agency - Head Office	May 2018	Quarterly
Areas Benefiting from Flood Defences		
Environment Agency - Head Office	May 2018	Quarterly
Flood Water Storage Areas		
Environment Agency - Head Office	May 2018	Quarterly
Flood Defences		
Environment Agency - Head Office	May 2018	Quarterly
OS Water Network Lines		
Ordnance Survey	May 2018	Quarterly
Surface Water 1 in 30 year Flood Extent		
Environment Agency - Head Office	October 2013	As notified
Surface Water 1 in 100 year Flood Extent		
Environment Agency - Head Office	October 2013	As notified
Surface Water 1 in 1000 year Flood Extent		
Environment Agency - Head Office	October 2013	As notified
Surface Water Suitability		
Environment Agency - Head Office	October 2013	As notified
BGS Groundwater Flooding Susceptibility		
British Geological Survey - National Geoscience Information Service	May 2013	As notified



Waste	Version	Update Cycle
BGS Recorded Landfill Sites		
British Geological Survey - National Geoscience Information Service	June 1996	Not Applicable
Historical Landfill Sites		
Environment Agency - Head Office	July 2018	Quarterly
Integrated Pollution Control Registered Waste Sites		
Environment Agency - South West Region	October 2008	Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries)		
Environment Agency - South West Region - North Wessex Area	July 2018	Quarterly
Environment Agency - South West Region - Wessex Area	July 2018	Quarterly
Licensed Waste Management Facilities (Locations)		
Environment Agency - South West Region - North Wessex Area	July 2018	Quarterly
Environment Agency - South West Region - Wessex Area	July 2018	Quarterly
Local Authority Landfill Coverage		
Bath and North East Somerset Council - Planning Services Department	May 2000	Not Applicable
Bristol City Council	May 2000	Not Applicable
North Somerset Council	May 2000	Not Applicable
South Gloucestershire Council - Environmental Services Department	May 2000	Not Applicable
Local Authority Recorded Landfill Sites		
Bath and North East Somerset Council - Planning Services Department	May 2000	Not Applicable
Bristol City Council	May 2000	Not Applicable
North Somerset Council	May 2000	Not Applicable
South Gloucestershire Council - Environmental Services Department	May 2000	Not Applicable
Potentially Infilled Land (Non-Water)		
Landmark Information Group Limited	December 1999	Not Applicable
Potentially Infilled Land (Water)		
Landmark Information Group Limited	December 1999	Not Applicable
Registered Landfill Sites		
Environment Agency - South West Region - North Wessex Area	March 2003	Not Applicable
Environment Agency - South West Region - Wessex Area	March 2003	Not Applicable
Registered Waste Transfer Sites		
Environment Agency - South West Region - North Wessex Area	March 2003	Not Applicable
Environment Agency - South West Region - Wessex Area	March 2003	Not Applicable
Registered Waste Treatment or Disposal Sites		
Environment Agency - South West Region - North Wessex Area	March 2003	Not Applicable
Environment Agency - South West Region - Wessex Area	March 2003	Not Applicable



Hazardous Substances	Version	Update Cycle
Control of Major Accident Hazards Sites (COMAH)	April 2019	Di Appuellu
Health and Safety Executive	April 2018	Bi-Annually
Explosive Sites Health and Safety Executive	March 2017	Variable
Notification of Installations Handling Hazardous Substances (NIHHS) Health and Safety Executive	November 2000	Not Applicable
Planning Hazardous Substance Enforcements Bristol City Council - Planning Department Bath and North East Somerset Council - Economic and Environmental Development North Somerset Council South Gloucestershire Council - Development Control: Planning	April 2015 February 2016 February 2016 May 2016	Variable Variable Variable Variable
Planning Hazardous Substance Consents Bristol City Council - Planning Department Bath and North East Somerset Council - Economic and Environmental Development North Somerset Council South Gloucestershire Council - Development Control: Planning	April 2015 February 2016 February 2016 May 2016	Variable Variable Variable Variable
Geological	Version	Update Cycle
BGS 1:625,000 Solid Geology		
British Geological Survey - National Geoscience Information Service	January 2009	Not Applicable
BGS Estimated Soil Chemistry British Geological Survey - National Geoscience Information Service	October 2015	As notified
BGS Recorded Mineral Sites		
British Geological Survey - National Geoscience Information Service	May 2018	Bi-Annually
CBSCB Compensation District Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011	Not Applicable
Coal Mining Affected Areas The Coal Authority - Property Searches	March 2014	As notified
Mining Instability Ove Arup & Partners	October 2000	Not Applicable
Non Coal Mining Areas of Great Britain British Geological Survey - National Geoscience Information Service	May 2015	Not Applicable
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	As notified
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	As notified
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	As notified
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	As notified
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	As notified
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	As notified
Radon Potential - Radon Affected Areas British Geological Survey - National Geoscience Information Service	July 2011	As notified
Radon Potential - Radon Protection Measures British Geological Survey - National Geoscience Information Service	July 2011	As notified



Industrial Land Use	Version	Update Cycle
Contemporary Trade Directory Entries		
Thomson Directories	May 2018	Quarterly
Fuel Station Entries		
Catalist Ltd - Experian	August 2018	Quarterly
Gas Pipelines		
National Grid	July 2014	
Points of Interest - Commercial Services		
PointX	September 2018	Quarterly
Points of Interest - Education and Health		
PointX	September 2018	Quarterly
Points of Interest - Manufacturing and Production		
PointX	September 2018	Quarterly
Points of Interest - Public Infrastructure		
PointX	September 2018	Quarterly
Points of Interest - Recreational and Environmental		
PointX	September 2018	Quarterly
Underground Electrical Cables		
National Grid	December 2015	



Sensitive Land Use	Version	Update Cycle
Ancient Woodland		
Natural England	August 2018	Bi-Annually
Areas of Adopted Green Belt		
Bath and North East Somerset Council	August 2018	As notified
Bristol City Council	August 2018	As notified
North Somerset Council	August 2018	As notified
South Gloucestershire Council	August 2018	As notified
Areas of Unadopted Green Belt		
Bath and North East Somerset Council	August 2018	As notified
Bristol City Council	August 2018	As notified
North Somerset Council	August 2018	As notified
South Gloucestershire Council	August 2018	As notified
Areas of Outstanding Natural Beauty		
Natural England	August 2018	Bi-Annually
Environmentally Sensitive Areas		
Natural England	January 2017	
Forest Parks		
Forestry Commission	April 1997	Not Applicable
Local Nature Reserves		
Natural England	August 2018	Bi-Annually
Marine Nature Reserves		
Natural England	January 2018	Bi-Annually
National Nature Reserves		
Natural England	August 2018	Bi-Annually
National Parks		
Natural England	April 2017	Bi-Annually
Nitrate Vulnerable Zones		
Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	October 2015	
Ramsar Sites		
Natural England	August 2018	Bi-Annually
Sites of Special Scientific Interest		
Natural England	February 2018	Bi-Annually
Special Areas of Conservation	-	
Natural England	August 2018	Bi-Annually
Special Protection Areas	. 3	,
Natural England	August 2018	Bi-Annually



Data Suppliers

A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	Mop data
Environment Agency	Environment Agency
Scottish Environment Protection Agency	SE PASSE Secutish Environment Protection Agency
The Coal Authority	The Coal Authority
British Geological Survey	British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL
Centre for Ecology and Hydrology	Centre for Ecology & Hydrology NATURAL ENVIRONMENT RESEARCH COUNCIL
Natural Resources Wales	Cyfoeth Naturiol Cymru Natural Resources Wales
Scottish Natural Heritage	SCOTTISH NATURAL HERITAGE
Natural England	NATURAL ENGLAND
Public Health England	Public Health England
Ove Arup	ARUP
Peter Brett Associates	peterbrett



Useful Contacts

Contact	Name and Address	Contact Details	
1	British Geological Survey - Enquiry Service British Geological Survey, Environmental Science Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk	
2	Environment Agency - National Customer Contact Centre (NCCC) PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk	
3	Bristol City Council - Environmental Health Department Brunel House, St Georges Road, Bristol, Avon, BS1 5UY	Telephone: 0117 922 2500	
4	Ordnance Survey Adanac Drive, Southampton, Hampshire, SO16 0AS	Telephone: 03456 05 05 05 Email: customerservices@ordnancesurvey.co.uk Website: www.ordnancesurvey.gov.uk	
5	Bristol City Council The Council House, College Green, Bristol, Avon, BS1 5TR	Telephone: 0117 922 2000 Fax: 0117 922 3886 Website: www.bristol-city.gov.uk	
6	Health and Safety Executive 5S.2 Redgrave Court, Merton Road, Bootle, L20 7HS	Website: www.hse.gov.uk	
7	Bristol City Council - Planning Department Brunel House, St Georges Road, Bristol, Avon, BS1 5UY	Telephone: 0117 922 2000 Fax: 0117 922 3861	
8	The Coal Authority - Property Searches 200 Lichfield Lane, Mansfield, Nottinghamshire, NG18 4RG	Telephone: 0345 762 6848 Fax: 01623 637 338 Email: groundstability@coal.gov.uk Website: www2.groundstability.com	
9	Peter Brett Associates Caversham Bridge House, Waterman Place, Reading, Berkshire, RG1 8DN	Telephone: 0118 950 0761 Fax: 0118 959 7498 Email: reading@pba.co.uk Website: www.pba.co.uk	
10	PointX 7 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY	Website: www.pointx.co.uk	
11	North Somerset Council PO Box 140, Town Hall, Weston-super-Mare, Avon, BS23 1UJ	Telephone: 01934 888888 Fax: 01934 888822 Website: www.n-somerset.gov.uk	
12	Natural England County Hall, Spetchley Road, Worcester, WR5 2NP	Telephone: 0300 060 3900 Email: enquiries@naturalengland.org.uk Website: www.naturalengland.org.uk	
13	Environment Agency - Head Office Rio House, Waterside Drive, Aztec West, Almondsbury, Bristol, Avon, BS32 4UD	Telephone: 01454 624400 Fax: 01454 624409	
-	Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@phe.gov.uk Website: www.ukradon.org	
-	Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk	

Please note that the Environment Agency / Natural Resources Wales / SEPA have a charging policy in place for enquiries.

