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Analytical Report Number : 24-044332

Project / Site name:	53924	Samples received on:	26/09/2024
Your job number:	SCOURS LANE	Samples instructed on / Analysis started on:	26/09/2024
Your order number:	PO3964-I2-01	Analysis completed by:	07/10/2024
Report Issue Number:	1	Report issued on:	07/10/2024
Samples Analysed:	9 soil samples		

Signed: _____

Anna Goc
PL Head of Reporting Team
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41-711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 24-044332

Project / Site name: 53924

Your Order No: PO3964-12-01

Lab Sample Number				329417	329418	329419	329420	329421
Sample Reference				BH01	BH01	BH01	BH01	BH01
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00	3.00	6.00	9.00	15.00
Date Sampled				23/09/2024	23/09/2024	23/09/2024	23/09/2024	24/09/2024
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status					

Stone Content	%	0.1	NONE	11.9	8.7	36.2	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	14	9.6	9.4	17	16
Total mass of sample received	kg	0.1	NONE	0.8	0.5	0.5	0.6	0.6

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	-	-	-	-
Asbestos Analyst ID	N/A	N/A	N/A	SCA	-	-	-	-

General Inorganics

pH (L099)	pH Units	N/A	MCERTS	9.5	8.1	8.7	9	9
Total Sulphate as SO ₄	%	0.005	MCERTS	-	0.033	0.021	0.026	0.03
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	130	47	19	30	35
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.0642	-	-	-	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	64.2	23.7	9.72	15	17.2
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5	MCERTS	-	1.6	2.7	3.2	3.8
Total Sulphur	mg/kg	50	MCERTS	-	130	120	100	130
Total Sulphur	%	0.005	MCERTS	-	0.013	0.012	0.01	0.013
Organic Matter (automated)	%	0.1	MCERTS	1.8	-	-	-	-
Fraction Organic Carbon (FOC) Automated	N/A	0.001	MCERTS	0.011	-	-	-	-
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	1	-	-	-	-
Water Soluble Nitrate (2:1) as N	mg/kg	2	NONE	-	3.6	< 2.0	< 2.0	< 2.0
Water Soluble Nitrate (2:1) as N (leachate equivalent)	mg/l	2	NONE	-	2	< 2.0	< 2.0	< 2.0

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	0.55	-	-	-	-
Acenaphthylene	mg/kg	0.05	MCERTS	0.64	-	-	-	-
Acenaphthene	mg/kg	0.05	MCERTS	7.3	-	-	-	-
Fluorene	mg/kg	0.05	MCERTS	7.6	-	-	-	-
Phenanthrene	mg/kg	0.05	MCERTS	34	-	-	-	-
Anthracene	mg/kg	0.05	MCERTS	16	-	-	-	-
Fluoranthene	mg/kg	0.05	MCERTS	41	-	-	-	-
Pyrene	mg/kg	0.05	MCERTS	43	-	-	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	21	-	-	-	-
Chrysene	mg/kg	0.05	MCERTS	21	-	-	-	-
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	22	-	-	-	-
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	12	-	-	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	21	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	9.1	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	2.2	-	-	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	11	-	-	-	-

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	270	-	-	-	-
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Analytical Report Number: 24-044332

Project / Site name: 53924

Your Order No: PO3964-12-01

Lab Sample Number	329417				329418	329419	329420	329421
Sample Reference	BH01				BH01	BH01	BH01	BH01
Sample Number	None Supplied				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	1.00				3.00	6.00	9.00	15.00
Date Sampled	23/09/2024				23/09/2024	23/09/2024	23/09/2024	24/09/2024
Time Taken	None Supplied				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status					

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	14	-	-	-	-
Barium (aqua regia extractable)	mg/kg	1	MCERTS	190	-	-	-	-
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	1.1	-	-	-	-
Boron (water soluble)	mg/kg	0.2	MCERTS	0.8	-	-	-	-
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.3	-	-	-	-
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	-	-	-	-
Chromium (III)	mg/kg	1	NONE	21	-	-	-	-
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	21	-	-	-	-
Copper (aqua regia extractable)	mg/kg	1	MCERTS	36	-	-	-	-
Lead (aqua regia extractable)	mg/kg	1	MCERTS	61	-	-	-	-
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	-	-	-	-
Molybdenum (aqua regia extractable)	mg/kg	0.25	MCERTS	1.3	-	-	-	-
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	21	-	-	-	-
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	-	-	-	-
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	40	-	-	-	-
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	95	-	-	-	-

Magnesium (leachate equivalent)	mg/l	2.5	NONE	-	2.7	< 2.5	< 2.5	< 2.5
Magnesium (water soluble)	mg/kg	5	NONE	-	5.5	< 5.0	< 5.0	< 5.0

Petroleum Hydrocarbons

TPHCWG - Aliphatic >EC5 - EC6 _{HS_1D_AL}	mg/kg	0.01	MCERTS	< 0.010	-	-	-	-
TPHCWG - Aliphatic >EC6 - EC8 _{HS_1D_AL}	mg/kg	0.01	MCERTS	< 0.010	-	-	-	-
TPHCWG - Aliphatic >EC8 - EC10 _{HS_1D_AL}	mg/kg	0.01	MCERTS	< 0.010	-	-	-	-
TPHCWG - Aliphatic >EC10 - EC12 _{EH_CU_1D_AL}	mg/kg	1	MCERTS	< 1.0	-	-	-	-
TPHCWG - Aliphatic >EC12 - EC16 _{EH_CU_1D_AL}	mg/kg	2	MCERTS	< 2.0	-	-	-	-
TPHCWG - Aliphatic >EC16 - EC21 _{EH_CU_1D_AL}	mg/kg	8	MCERTS	< 8.0	-	-	-	-
TPHCWG - Aliphatic >EC21 - EC35 _{EH_CU_1D_AL}	mg/kg	8	MCERTS	< 13	-	-	-	-
TPHCWG - Aliphatic >EC35 - EC40 _{EH_CU_1D_AL}	mg/kg	10	NONE	< 10	-	-	-	-
TPHCWG - Aliphatic >EC5 - EC40 _{EH_CU+HS_1D_AL}	mg/kg	10	NONE	13	-	-	-	-

TPHCWG - Aromatic >EC5 - EC7 _{HS_1D_AR}	mg/kg	0.01	MCERTS	< 0.010	-	-	-	-
TPHCWG - Aromatic >EC7 - EC8 _{HS_1D_AR}	mg/kg	0.01	MCERTS	< 0.010	-	-	-	-
TPHCWG - Aromatic >EC8 - EC10 _{HS_1D_AR}	mg/kg	0.02	MCERTS	< 0.020	-	-	-	-
TPHCWG - Aromatic >EC10 - EC12 _{EH_CU_1D_AR}	mg/kg	1	MCERTS	2.3	-	-	-	-
TPHCWG - Aromatic >EC12 - EC16 _{EH_CU_1D_AR}	mg/kg	2	MCERTS	31	-	-	-	-
TPHCWG - Aromatic >EC16 - EC21 _{EH_CU_1D_AR}	mg/kg	10	MCERTS	130	-	-	-	-
TPHCWG - Aromatic >EC21 - EC35 _{EH_CU_1D_AR}	mg/kg	10	MCERTS	190	-	-	-	-
TPHCWG - Aromatic >EC35 - EC40 _{EH_CU_1D_AR}	mg/kg	10	NONE	29	-	-	-	-
TPHCWG - Aromatic >EC5 - EC40 _{EH_CU+HS_1D_AR}	mg/kg	10	NONE	380	-	-	-	-

TPH Total >EC5 - EC40 _{EH_CU+HS_1D_TOTAL}	mg/kg	10	NONE	400	-	-	-	-
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VOCs

MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	-	-	-	-
Benzene	µg/kg	5	MCERTS	< 5.0	-	-	-	-
Toluene	µg/kg	5	MCERTS	< 5.0	-	-	-	-
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	-	-	-	-
p & m-Xylene	µg/kg	5	MCERTS	< 5.0	-	-	-	-
o-Xylene	µg/kg	5	MCERTS	< 5.0	-	-	-	-



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 Your Order No: PO3964-12-01

Lab Sample Number				329417	329418	329419	329420	329421
Sample Reference				BH01	BH01	BH01	BH01	BH01
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00	3.00	6.00	9.00	15.00
Date Sampled				23/09/2024	23/09/2024	23/09/2024	23/09/2024	24/09/2024
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status					

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

Analytical Report Number: 24-044332

Project / Site name: 53924

Your Order No: PO3964-12-01

Lab Sample Number	329422	329423	329424	329425
Sample Reference	WS01	WS02	WS03	WS04
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	2.50	1.50	0.50	0.60
Date Sampled	24/09/2024	24/09/2024	24/09/2024	24/09/2024
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status	

Stone Content	%	0.1	NONE	14	38.6	45	12.6
Moisture Content	%	0.01	NONE	14	9.9	6	14
Total mass of sample received	kg	0.1	NONE	0.8	0.8	0.8	0.8

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	SCA	SCA	SCA	SCA

General Inorganics

pH (L099)	pH Units	N/A	MCERTS	7.6	8.4	8.4	8.5
Total Sulphate as SO ₄	%	0.005	MCERTS	-	-	-	-
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	18	19	24	55
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.00897	0.00924	0.012	0.0274
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	8.97	9.24	12	27.4
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5	MCERTS	-	-	-	-
Total Sulphur	mg/kg	50	MCERTS	-	-	-	-
Total Sulphur	%	0.005	MCERTS	-	-	-	-
Organic Matter (automated)	%	0.1	MCERTS	0.8	0.3	1.6	4.6
Fraction Organic Carbon (FOC) Automated	N/A	0.001	MCERTS	0.0046	0.0017	0.0093	0.026
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	0.5	0.2	0.9	2.6
Water Soluble Nitrate (2:1) as N	mg/kg	2	NONE	-	-	-	-
Water Soluble Nitrate (2:1) as N (leachate equivalent)	mg/l	2	NONE	-	-	-	-

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.09	0.17
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.07	0.3
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.1	0.18
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.09	0.31
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	1.1	4.2
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.36	1.1
Fluoranthene	mg/kg	0.05	MCERTS	0.09	0.07	2.2	7.6
Pyrene	mg/kg	0.05	MCERTS	0.06	< 0.05	2	6.5
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.09	< 0.05	1.1	3.7
Chrysene	mg/kg	0.05	MCERTS	0.07	< 0.05	1.3	3.8
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	1.5	4.7
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	0.77	2.1
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	1.3	4.2
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.78	2.3
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.18	0.42
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.93	2.6

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80	< 0.80	13.8	44.3
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Analytical Report Number: 24-044332

Project / Site name: 53924

Your Order No: PO3964-12-01

Lab Sample Number	329422	329423	329424	329425
Sample Reference	WS01	WS02	WS03	WS04
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	2.50	1.50	0.50	0.60
Date Sampled	24/09/2024	24/09/2024	24/09/2024	24/09/2024
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status	

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	16	11	17	12
Barium (aqua regia extractable)	mg/kg	1	MCERTS	59	34	81	120
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.91	0.54	0.82	0.71
Boron (water soluble)	mg/kg	0.2	MCERTS	0.7	0.3	0.6	0.7
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	0.3	0.3
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8	< 1.8	< 1.8
Chromium (III)	mg/kg	1	NONE	26	16	20	18
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	26	16	20	19
Copper (aqua regia extractable)	mg/kg	1	MCERTS	12	6	26	30
Lead (aqua regia extractable)	mg/kg	1	MCERTS	16	9.9	78	76
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3
Molybdenum (aqua regia extractable)	mg/kg	0.25	MCERTS	0.77	0.55	1.1	1.1
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	22	12	19	16
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	46	34	38	36
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	58	33	95	100

Magnesium (leachate equivalent)	mg/l	2.5	NONE	-	-	-	-
Magnesium (water soluble)	mg/kg	5	NONE	-	-	-	-

Petroleum Hydrocarbons

TPHCWG - Aliphatic >EC5 - EC6 _{HS_1D_AL}	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aliphatic >EC6 - EC8 _{HS_1D_AL}	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aliphatic >EC8 - EC10 _{HS_1D_AL}	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aliphatic >EC10 - EC12 _{EH_CU_1D_AL}	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
TPHCWG - Aliphatic >EC12 - EC16 _{EH_CU_1D_AL}	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0
TPHCWG - Aliphatic >EC16 - EC21 _{EH_CU_1D_AL}	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0
TPHCWG - Aliphatic >EC21 - EC35 _{EH_CU_1D_AL}	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0
TPHCWG - Aliphatic >EC35 - EC40 _{EH_CU_1D_AL}	mg/kg	10	NONE	< 10	< 10	< 10	< 10
TPHCWG - Aliphatic >EC5 - EC40 _{EH_CU+HS_1D_AL}	mg/kg	10	NONE	< 10	< 10	< 10	< 10

TPHCWG - Aromatic >EC5 - EC7 _{HS_1D_AR}	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 _{HS_1D_AR}	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 _{HS_1D_AR}	mg/kg	0.02	MCERTS	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aromatic >EC10 - EC12 _{EH_CU_1D_AR}	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 _{EH_CU_1D_AR}	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0
TPHCWG - Aromatic >EC16 - EC21 _{EH_CU_1D_AR}	mg/kg	10	MCERTS	< 10	< 10	< 10	11
TPHCWG - Aromatic >EC21 - EC35 _{EH_CU_1D_AR}	mg/kg	10	MCERTS	< 10	< 10	20	33
TPHCWG - Aromatic >EC35 - EC40 _{EH_CU_1D_AR}	mg/kg	10	NONE	< 10	< 10	< 10	< 10
TPHCWG - Aromatic >EC5 - EC40 _{EH_CU+HS_1D_AR}	mg/kg	10	NONE	< 10	< 10	20	43

TPH Total >EC5 - EC40 _{EH_CU+HS_1D_TOTAL}	mg/kg	10	NONE	< 10	< 10	20	43
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VOCs

MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0
p & m-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0



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 Your Order No: PO3964-12-01

Lab Sample Number				329422	329423	329424	329425
Sample Reference				WS01	WS02	WS03	WS04
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				2.50	1.50	0.50	0.60
Date Sampled				24/09/2024	24/09/2024	24/09/2024	24/09/2024
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status				

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

Analytical Report Number : 24-044332

Project / Site name: 53924

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
329417	BH01	None Supplied	1	Brown silt / sediment with stones ⁹
329418	BH01	None Supplied	3	Brown clay and sand with stones
329419	BH01	None Supplied	6	Brown sand with stones
329420	BH01	None Supplied	9	Beige clay and sand with chalk
329421	BH01	None Supplied	15	Beige clay and sand with chalk
329422	WS01	None Supplied	2.5	Brown clay and sand with stones and chalk
329423	WS02	None Supplied	1.5	Brown sand with stones
329424	WS03	None Supplied	0.5	Brown loam and sand with stones and vegetation
329425	WS04	None Supplied	0.6	Brown loam and sand with stones and vegetation

Analytical Report Number : 24-044332

Project / Site name: 53924

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos identification in Soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques	In-house method based on HSG 248, 2021	A001B	D	ISO 17025
Organic matter (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate (Walkley Black Method)	In-house method	L009B	D	MCERTS
Total organic carbon (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate (Walkley Black Method)	In-house method	L009B	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically (up to 30°C)	In-house method	L019B	W	NONE
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight	In-house method based on British Standard Methods and MCERTS requirements.	L019B	D	NONE
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil	L038B	D	MCERTS
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES	In-house method based on Second Site Properties version 3	L038B	D	MCERTS
Magnesium, water soluble, in soil	Determination of water soluble magnesium by extraction with water followed by ICP-OES	In-house method based on TRL 447	L038B	D	NONE
Total sulphate (as SO ₄ in soil)	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES	In-house method	L038B	D	MCERTS
Sulphate, water soluble, in soil (16hr extraction)	Sulphate, water soluble, in soil (16hr extraction)	In-house method	L038B	D	MCERTS
Total Sulphur in soil	Determination of total sulphur in soil by extraction with aqua-regia, potassium bromide/bromate followed by ICP-OES	In-house method	L038B	D	MCERTS
Speciated PAHs and/or Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds (including PAH) in soil by extraction in dichloromethane and hexane followed by GC-MS	In-house method based on USEPA 8270	L064B	D	MCERTS
BTEX and/or Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS	In-house method based on USEPA 8260	L073B	W	MCERTS
Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS with carbon banding aliphatic and aromatic	In-house method	L076B/L088-PL	D/W	MCERTS
Water Soluble Nitrate (2:1) as N in soil	Determination of nitrate by reaction with sodium salicylate and colorimetry	In-house method based on Examination of Water and Wastewater & Polish Standard Method PN-82/C-04579.08, 2:1 extraction	L078-PL	W	NONE

Analytical Report Number : 24-044332

Project / Site name: 53924

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Chromium III in soil	In-house method by calculation from total Cr and Cr VI	In-house method by calculation	L080-PL/L130B	W	NONE
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in NaOH and addition of 1,5 diphenylcarbazide followed by colorimetry	In-house method	L080-PL	W	MCERTS
Chloride, water soluble, in soil	Determination of Chloride colorimetrically by discrete analyser	In-house method	L082B	D	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement	In-house method	L099-PL	D	MCERTS
Fraction Organic Carbon FOC Automated	Determination of fraction of organic carbon in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate	In-house method	L009B	D	MCERTS

For method numbers ending in 'UK' or 'A' analysis have been carried out in our laboratory in the United Kingdom (Watford).

For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).

For method numbers ending in 'PL' or 'B' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
_	Operator - underscore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

Quality control parameter failure associated with individual result applies to calculated sum of individuals.

The result for sum should be interpreted with caution

*g - Unaccredited sample matrix.



4041



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Analytical Report Number : 24-046485

Project / Site name:	Scours Lane	Samples received on:	08/10/2024
Your job number:	53924	Samples instructed on / Analysis started on:	08/10/2024
Your order number:	PO3447 I2 02	Analysis completed by:	17/10/2024
Report Issue Number:	1	Report issued on:	17/10/2024
Samples Analysed:	1 water sample		

Signed: 

Trevor Hill
Customer Service Advisor
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41-711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.



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Analytical Report Number: 24-046485

Project / Site name: Scours Lane

Your Order No: PO3447 I2 02

Lab Sample Number				341454
Sample Reference				BH01
Sample Number				None Supplied
Depth (m)				7.20
Date Sampled				07/10/2024
Time Taken				1350
Analytical Parameter (Water Analysis)	Units	Test Limit of detection	Test Accreditation Status	

General Inorganics

pH (L099)	pH Units	N/A	ISO 17025	7.2
Sulphate as SO ₄	mg/l	0.045	ISO 17025	61.2
Dissolved Organic Carbon (DOC)	mg/l	0.1	ISO 17025	1.31
Total Organic Carbon (TOC)	mg/l	0.1	ISO 17025	1.7
Total Suspended Solids (L004B)	mg/l	2	ISO 17025	1900

Speciated PAHs

Naphthalene	µg/l	0.01	ISO 17025	< 0.01
Acenaphthylene	µg/l	0.01	ISO 17025	< 0.01
Acenaphthene	µg/l	0.01	ISO 17025	0.38
Fluorene	µg/l	0.01	ISO 17025	0.26
Phenanthrene	µg/l	0.01	ISO 17025	0.86
Anthracene	µg/l	0.01	ISO 17025	0.29
Fluoranthene	µg/l	0.01	ISO 17025	0.58
Pyrene	µg/l	0.01	ISO 17025	0.42
Benzo(a)anthracene	µg/l	0.01	ISO 17025	< 0.01
Chrysene	µg/l	0.01	ISO 17025	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	< 0.01
Benzo(a)pyrene	µg/l	0.01	ISO 17025	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	ISO 17025	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	ISO 17025	< 0.01
Benzo(ghi)perylene	µg/l	0.01	ISO 17025	< 0.01

Total PAH

Total EPA-16 PAHs	µg/l	0.16	ISO 17025	2.79
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Heavy Metals / Metalloids

Arsenic (dissolved)	µg/l	0.15	ISO 17025	0.26
Barium (dissolved)	µg/l	0.06	ISO 17025	52
Beryllium (dissolved)	µg/l	0.1	ISO 17025	< 0.1
Cadmium (dissolved)	µg/l	0.02	ISO 17025	< 0.02
Chromium (dissolved)	µg/l	0.2	ISO 17025	0.5
Copper (dissolved)	µg/l	0.5	ISO 17025	2.2
Lead (dissolved)	µg/l	0.2	ISO 17025	< 0.2
Mercury (dissolved)	µg/l	0.05	ISO 17025	< 0.05
Molybdenum (dissolved)	µg/l	0.05	ISO 17025	0.84
Nickel (dissolved)	µg/l	0.5	ISO 17025	13
Selenium (dissolved)	µg/l	0.6	ISO 17025	2.9
Vanadium (dissolved)	µg/l	0.2	ISO 17025	< 0.2
Zinc (dissolved)	µg/l	0.5	ISO 17025	5.1

Boron (dissolved)	µg/l	10	ISO 17025	100
Chromium (hexavalent)	µg/l	5	ISO 17025	< 5.0
Chromium (III)	µg/l	5	NONE	< 5.0

Analytical Report Number: 24-046485

Project / Site name: Scours Lane

Your Order No: PO3447 I2 02

Lab Sample Number				341454
Sample Reference				BH01
Sample Number				None Supplied
Depth (m)				7.20
Date Sampled				07/10/2024
Time Taken				1350
Analytical Parameter (Water Analysis)	Units	Test Limit of detection	Test Accreditation Status	

Petroleum Hydrocarbons

TPH - Aliphatic >EC5 - EC6 _{HS 1D AL}	µg/l	1	ISO 17025	< 1.0
TPH - Aliphatic >EC6 - EC8 _{HS 1D AL}	µg/l	1	ISO 17025	< 1.0
TPH - Aliphatic >EC8 - EC10 _{HS 1D AL}	µg/l	1	ISO 17025	< 1.0
TPH - Aliphatic >EC10 - EC12 _{EH 1D AL MS}	µg/l	10	NONE	< 10
TPH - Aliphatic >EC12 - EC16 _{EH 1D AL MS}	µg/l	10	NONE	< 10
TPH - Aliphatic >EC16 - EC21 _{EH 1D AL MS}	µg/l	10	NONE	< 10
TPH - Aliphatic >EC21 - EC35 _{EH 1D AL MS}	µg/l	10	NONE	< 10
TPH - Aliphatic >EC5 - EC35 _{HS+EH 1D AL MS}	µg/l	10	NONE	< 10
TPH - Aliphatic >EC35 - EC40 _{EH 1D AL MS}	µg/l	10	NONE	< 10
TPH - Aliphatic >EC5 - EC40 _{HS+EH 1D AL MS}	µg/l	10	NONE	< 10

TPH - Aromatic >EC5 - EC7 _{HS 1D AR}	µg/l	1	ISO 17025	< 1.0
TPH - Aromatic >EC7 - EC8 _{HS 1D AR}	µg/l	1	ISO 17025	< 1.0
TPH - Aromatic >EC8 - EC10 _{HS 1D AR}	µg/l	1	ISO 17025	< 1.0
TPH - Aromatic >EC10 - EC12 _{EH 1D AR MS}	µg/l	10	NONE	< 10
TPH - Aromatic >EC12 - EC16 _{EH 1D AR MS}	µg/l	10	NONE	25
TPH - Aromatic >EC16 - EC21 _{EH 1D AR MS}	µg/l	10	NONE	10
TPH - Aromatic >EC21 - EC35 _{EH 1D AR MS}	µg/l	10	NONE	< 10
TPH - Aromatic >EC5 - EC35 _{HS+EH 1D AR MS}	µg/l	10	NONE	35
TPH - Aromatic >EC35 - EC40 _{EH 1D AR MS}	µg/l	10	NONE	< 10
TPH - Aromatic >EC5 - EC40 _{HS+EH 1D AR MS}	µg/l	10	NONE	35

TPH Total (>EC5 - EC40) _{HS+EH 1D TOTAL MS}	µg/l	10	NONE	35
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VOCS

MTBE (Methyl Tertiary Butyl Ether)	µg/l	3	ISO 17025	< 3.0
Benzene	µg/l	3	ISO 17025	< 3.0
Toluene	µg/l	3	ISO 17025	< 3.0
Ethylbenzene	µg/l	3	ISO 17025	< 3.0
p & m-xylene	µg/l	3	ISO 17025	< 3.0
o-xylene	µg/l	3	ISO 17025	< 3.0

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected



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Analytical Report Number : 24-046485

Project / Site name: Scours Lane

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Total Suspended Solids in water	Determined gravimetrically with GFC filtration papers. Accredited matrices: SW, PW, GW, PrW, FSE, LL	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L004B	W	ISO 17025
Metals in water by ICP-MS (dissolved)	Determination of metals in water by acidification followed by ICP-MS. Accredited matrices: SW, PW, GW, except B - SW, GW, Hg - SW, PW, Al - SW, PW	In-house method based on USEPA Method 6020 & 200.8 for the determination of trace elements in water by ICP-MS	L012B	W	ISO 17025
Dissolved Organic Carbon in water	Determination of dissolved organic carbon in water by TOC/DOC NDIR Analyser. Accredited matrices: SW, PW, GW, FSE, LL	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L037B	W	ISO 17025
Total Organic Carbon in water	Determination of total organic carbon in water by TOC/DOC NDIR Analyser. Accredited matrices: SW, PW, GW, FSE, LL	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L037B	W	ISO 17025
Metals in water by ICP-OES (dissolved)	Determination of metals in water by acidification followed by ICP-OES. Accredited matrices: SW, PW, GW, FSE, LL; PrW, DI PrW (Al, Cu, Fe, Zn)	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil	L039B	W	ISO 17025
Total Petroleum Hydrocarbons with carbon banding in water by GC-MS	Determination of total petroleum hydrocarbons in water by GC-MS with carbon banding aliphatic and aromatic	In-house method	L070B	W	NONE
BTEX and/or Volatile Organic Compounds in water	Determination of volatile organic compounds in water by headspace GC-MS. Accredited matrices: SW, PW, GW	In-house method based on USEPA 8260	L073B	W	ISO 17025
Chromium(III) in water	In-house method by calculation from total Cr and Cr(VI)	In-house method by calculation	L080-PL	W	NONE
Hexavalent chromium in water	Determination of hexavalent chromium in water by acidification, addition of 1,5-diphenylcarbazide, followed by colorimetry. Accredited matrices: SW, PW, GW, FSE, LL	In-house method by continuous flow analyser	L080-PL	W	ISO 17025
Total Petroleum Hydrocarbons in water by HS-GC-MS	Determination of total petroleum hydrocarbons in water by headspace GC-MS. Accredited matrices: SW, PW, GW	In-house method	L088-PL	W	ISO 17025
pH of water at 20°C (automated)	Determination of pH of water by electrochemical measurement. Accredited matrices: SW, PW, GW, FSE, LL	In-house method	L099-PL	W	ISO 17025
Speciated PAHs and/or Semi-volatile organic compounds in water	Determination of semi-volatile organic compounds (including PAHs) in water by extraction in dichloromethane followed by GC-MS. Accredited matrices (PAHs): SW, PW, GW	In-house method based on USEPA 8270	L102B	W	ISO 17025
Sulphate in water	Determination of sulphate in water after filtration by acidification followed by ICP-OES. Accredited matrices: SW, PW, GW, PrW, DI PrW, FSE, LL	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil	L039B	W	ISO 17025

For method numbers ending in 'UK' or 'A' analysis have been carried out in our laboratory in the United Kingdom (Watford).

For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).

For method numbers ending in 'PL' or 'B' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30°C.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Analytical Report Number : 24-046485

Project / Site name: Scours Lane

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
-	Operator - underscore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

Quality control parameter failure associated with individual result applies to calculated sum of individuals.

The result for sum should be interpreted with caution



Appendix G Qualitative Risk Assessment Matrix

A2SI qualitative risk assessment for geo-environmental purposes is undertaken in accordance with *CIRIA C552: Contaminated Land Risk Assessment, A Guide to Good Practice (Rudland et al., 2001)*. The CIRIA C552 risk categories and the assessment methodology are summarised below in Table G.1, Table G.2 and Table G.3. Potential magnitude and potential likelihood are both classified to enable a risk rating to be assessed. Potential magnitude takes into account the potential consequences should a complete source–pathway–receptor linkage be present. Potential magnitude is classified as per Table G.1.

Table G.1 Definition of potential magnitude of consequence

Category	Definition
Severe	Acute risks to human health, catastrophic damage to buildings / property, major pollution to controlled waters.
Medium	Chronic risk to human health, pollution of sensitive controlled waters, significant effects on sensitive ecosystems or species, significant damage to buildings or structures.
Mild	Pollution of non-sensitive waters, minor damage to buildings or structures.
Minor	Damage to non-sensitive ecosystems or species.

Potential likelihood takes into account the presence of the hazard and receptor as well as the integrity of the pathway for exposure, i.e., whether a source-pathway-receptor linkage is present or not. Potential likelihood is classified as per Table G.2.

Table G.2 Definition of potential likelihood of exposure

Category	Definition
High Likelihood	Pollutant linkage may be present and is almost certain to occur in the long-term. Or there is evidence of harm to the receptor.
Likely	Pollutant linkage may be present, and it is probable that it will occur over the long-term.
Low Likelihood	Pollutant linkage may be present, and there is a possibility that it will occur, although there is no certainty that it will do so.
Unlikely	Pollutant linkage may be present, but it is improbable that it will occur.

The potential magnitude of consequence and the potential likelihood of exposure are assessed in accordance with the risk matrix presented in Table G.3.

Table G.3 Geo-environmental risk assessment matrix

		Potential Magnitude of Consequence			
		Severe	Medium	Mild	Minor
Potential Likelihood of Exposure	High Likelihood	Very High	High	Moderate	Low to Moderate
	Likely	High	Moderate	Low to Moderate	Low
	Low Likelihood	Moderate	Low to Moderate	Low	Very Low



Unlikely	Low to Moderate	Low	Very Low	Very Low
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Appendix H GQRA Screening Tables

Human Health Generic Quantitative Screening of Soil Data

52724 Addison Road

Key:	
	Exceedance of the GAC
	GAC - Generic Assessment Criteria

Location										
Laboratory Report Ref.										
Exploratory Location Ref.										
Sample Depth (m)										
Sample Date										
Made Ground / Natural ?										
	Units	Commercial	2.5% SOM (mg kg-1)							
			GAC	GAC Ref.						
			Made Ground	Alluvium	TGM	Chalk	Chalk	Chalk	Made Ground	Made Ground

Anions and Other										
pH	pH Units	-	9.5	8.1	8.7	9	9	7.6	8.4	8.5
Total Sulphate as SO ₄	mg/kg	-	130	47	19	30	35	18	19	55
W/S Sulphate as SO ₄ (2:1)	mg/l	-	64.2	23.7	9.72	15	17.2	8.97	9.24	27.4
W/S Sulphate as SO ₄ (2:1)	g/l	-	0.0642	-	-	-	-	0.00897	0.00924	0.012
Organic Matter (SOM)	%	-	1.8	-	-	-	-	0.8	0.3	1.6
TOC (Total Organic Carbon)	%	-	1	-	-	-	-	0.5	0.2	0.9
Fraction Organic Carbon (FOC)	Units	-	0.011	-	-	-	-	0.0046	0.0017	0.0093

Heavy Metals and Metalloids										
Arsenic (As)	mg/kg	640	DEFRA LCARRE C4SLs	14	-	-	-	16	11	17
Barium (Ba)	mg/kg	22,000	LCARRE C4SLs	190	-	-	-	59	34	81
Beryllium (Be)	mg/kg	12	DEFRA C4SLs	1.1	-	-	-	0.91	0.54	0.82
W/S Boron	mg/kg	24,000	DEFRA C4SLs	0.8	-	-	-	0.7	0.3	0.6
Cadmium (Cd)	mg/kg	410	DEFRA C4SLs	0.3	-	-	-	< 0.2	< 0.2	0.3
Chromium (Cr)	mg/kg	8600	LOM S4ULs	< 1.8	-	-	-	< 1.8	< 1.8	< 1.8
Chromium (III)	mg/kg	8600	LOM S4ULs	21	-	-	-	26	16	20
Chromium (hexavalent)	mg/kg	49	DEFRA C4SLs	21	-	-	-	26	16	20
Copper (Cu)	mg/kg	68,000	LOM S4ULs	36	-	-	-	12	6	26
Lead (Pb)	mg/kg	2330	DEFRA C4SLs	61	-	-	-	16	9.9	78
Mercury (Hg)	mg/kg	1100	LOM S4ULs	< 0.3	-	-	-	< 0.3	< 0.3	< 0.3
Molybdenum (Mo)	mg/kg	17000	LOM S4ULs	1.3	-	-	-	0.77	0.55	1.1
Nickel (Ni)	mg/kg	980	LOM S4ULs	21	-	-	-	22	12	19
Selenium (Se)	mg/kg	12000	LOM S4ULs	< 1.0	-	-	-	< 1.0	< 1.0	< 1.0
Vanadium (V)	mg/kg	9,000	LOM S4ULs	40	-	-	-	46	34	38
Zinc (Zn)	mg/kg	730,000	LOM S4ULs	95	-	-	-	58	33	95

Asbestos										
Asbestos Screen ⁽⁵⁾	Detection		Not-detected	-	-	-	-	Not-detected	Not-detected	Not-detected

PAHs										
Naphthalene	mg/kg	460	LOM S4ULs	0.55	-	-	-	< 0.05	< 0.05	0.09
Acenaphthylene	mg/kg	97,000	LOM S4ULs	0.64	-	-	-	< 0.05	< 0.05	0.07
Acenaphthene	mg/kg	97,000	LOM S4ULs	7.3	-	-	-	< 0.05	< 0.05	0.1
Fluorene	mg/kg	68,000	LOM S4ULs	7.6	-	-	-	< 0.05	< 0.05	0.09
Phenanthrene	mg/kg	22,000	LOM S4ULs	34	-	-	-	< 0.05	< 0.05	1.1
Anthracene	mg/kg	540,000	LOM S4ULs	16	-	-	-	< 0.05	< 0.05	0.36
Fluoranthene	mg/kg	23,000	LOM S4ULs	41	-	-	-	0.09	0.07	2.2
Pyrene	mg/kg	54,000	LOM S4ULs	43	-	-	-	0.06	< 0.05	2
Benzo(a)anthracene	mg/kg	170	LOM S4ULs	21	-	-	-	0.09	< 0.05	1.1
Chrysene	mg/kg	350	LOM S4ULs	21	-	-	-	0.07	< 0.05	1.3
Benzo(b)fluoranthene	mg/kg	44	LOM S4ULs	22	-	-	-	< 0.05	< 0.05	1.5
Benzo(k)fluoranthene	mg/kg	350	LOM S4ULs	12	-	-	-	< 0.05	< 0.05	0.77
Benzo(a)pyrene	mg/kg	77	LOM S4ULs	21	-	-	-	< 0.05	< 0.05	1.3
Indeno(1,2,3-cd)pyrene	mg/kg	510	LOM S4ULs	9.1	-	-	-	< 0.05	< 0.05	0.78
Dibenz(a,h)anthracene	mg/kg	3.6	LOM S4ULs	2.2	-	-	-	< 0.05	< 0.05	0.18
Benzo(ghi)perylene	mg/kg	4,000	LOM S4ULs	11	-	-	-	< 0.05	< 0.05	0.93
Total EPA-16 PAHs	mg/kg	-	-	270	-	-	-	< 0.80	< 0.80	13.8

Human Health Generic Quantitative Screening of Soil Data

52724 Addison Road

Key:

Exceedance of the GAC

GAC - Generic Assessment Criteria

Location												
Laboratory Report Ref.												
Exploratory Location Ref.												
Sample Depth (m)												
Sample Date												
Made Ground / Natural ?												
	Units	2.5% SOM (mg kg-1)	GAC	GAC Ref.								

TPH

Aliphatic >C5 - C6	mg/kg	5,900	LOM S4ULs	< 0.010	-	-	-	-	< 0.010	< 0.010	< 0.010	< 0.010
Aliphatic >C6 - C8	mg/kg	17,000	LOM S4ULs	< 0.010	-	-	-	-	< 0.010	< 0.010	< 0.010	< 0.010
Aliphatic >C8 - C10	mg/kg	4,800	LOM S4ULs	< 0.010	-	-	-	-	< 0.010	< 0.010	< 0.010	< 0.010
Aliphatic >C10 - C12	mg/kg	23,000	LOM S4ULs	< 1.0	-	-	-	-	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic >C12 - C16	mg/kg	82,000	LOM S4ULs	< 2.0	-	-	-	-	< 2.0	< 2.0	< 2.0	< 2.0
Aliphatic >C16 - C21	mg/kg	1,700,000	LOM S4ULs	< 8.0	-	-	-	-	< 8.0	< 8.0	< 8.0	< 8.0
Aliphatic >C21 - C34	mg/kg		LOM S4ULs	13	-	-	-	-	< 8.0	< 8.0	< 8.0	< 8.0
Aliphatic >C34 - C40	mg/kg	1,700,000	LOM S4ULs	< 10	-	-	-	-	< 10	< 10	< 10	< 10
Aliphatic (C5 - C40)	mg/kg	110,000	LOM S4ULs	13	-	-	-	-	< 10	< 10	< 10	< 10
Aromatic >C5 - C7	mg/kg	46,000	LOM S4ULs	< 0.010	-	-	-	-	< 0.010	< 0.010	< 0.010	< 0.010
Aromatic >C7 - C8	mg/kg	110,000	LOM S4ULs	< 0.010	-	-	-	-	< 0.010	< 0.010	< 0.010	< 0.010
Aromatic >C8 - C10	mg/kg	8,100	LOM S4ULs	< 0.020	-	-	-	-	< 0.020	< 0.020	< 0.020	< 0.020
Aromatic >C10 - C12	mg/kg	28,000	LOM S4ULs	2.3	-	-	-	-	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic >C12 - C16	mg/kg	37,000	LOM S4ULs	31	-	-	-	-	< 2.0	< 2.0	< 2.0	< 2.0
Aromatic >C16 - C21	mg/kg	28,000	LOM S4ULs	130	-	-	-	-	< 10	< 10	< 10	11
Aromatic >C21 - C35	mg/kg	28,000	LOM S4ULs	190	-	-	-	-	< 10	< 10	20	33
Aromatic (C35 - C40)	mg/kg	28,000	LOM S4ULs	29	-	-	-	-	< 10	< 10	< 10	< 10
Total >C5 - C40	mg/kg	28,000	LOM S4ULs	380	-	-	-	-	< 10	< 10	20	43

BTEX and MTBE

Benzene	ug/kg	27,000	DEFRA C4SLs	< 5.0	-	-	-	-	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	ug/kg	110,000,000	LOM S4ULs	< 5.0	-	-	-	-	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	ug/kg	13,000,000	LOM S4ULs	< 5.0	-	-	-	-	< 5.0	< 5.0	< 5.0	< 5.0
p & m-xylene	ug/kg	14,000,000	LOM S4ULs	< 5.0	-	-	-	-	< 5.0	< 5.0	< 5.0	< 5.0
o-xylene	ug/kg	15,000,000	LOM S4ULs	< 5.0	-	-	-	-	< 5.0	< 5.0	< 5.0	< 5.0
MTBE	ug/kg	13,000,000	CLAIRE GAC	< 5.0	-	-	-	-	< 5.0	< 5.0	< 5.0	< 5.0

Controlled Waters Generic Quantitative Screening of Groundwater Data

53924 Scours Lane

Key:	
	Exceedance of the Drinking Water GAC
	Exceedance of Environmental Quality GAC
	Exceedance of both GAC
GAC - Generic Assessment Criteria	

Laboratory Report Ref.		Drinking Water GAC	Environmental Quality GAC	341454
Exploratory Location Ref.				BH01
Sample Date				07/10/2024
Aquifer Unit				TGM
GAC Refs.	Units	UK and EU Drinking Water Standards and WHO Guideline Values	Environmental Quality Standards (EQS) published by the UK, EU and EA	

Anions and Other

pH (L099)	pH Units	-		7.2
Sulphate as SO ₄	mg/l	250	400	61.2
Dissolved Organic Carbon (DOC)	mg/l	-		1.31
Total Organic Carbon (TOC)	mg/l	-		1.7
Total Suspended Solids (L004B)	mg/l	-		1900

Heavy Metals and Metalloids

Arsenic (dissolved)	µg/l	10	50	0.26
Barium (dissolved)	µg/l	700	-	52
Beryllium (dissolved)	µg/l	12	-	< 0.1
Boron (dissolved)	µg/l	1000	2000	100
Cadmium (dissolved)	µg/l	5	0.08	< 0.02
Chromium (dissolved)	µg/l	50 (sum)	4.7	0.5
Chromium (hexavalent)	µg/l		3.4	< 5.0
Chromium (III)	µg/l		4.7	< 5.0
Copper (dissolved)	µg/l	2000	1 (bioavailable)	2.2
Lead (dissolved)	µg/l	10	1.2	< 0.2
Mercury (dissolved)	µg/l	1	0.07	< 0.05
Molybdenum (dissolved)	µg/l	-		0.84
Nickel (dissolved)	µg/l	20	4	13
Selenium (dissolved)	µg/l	10	-	2.9
Vanadium (dissolved)	µg/l	-	20	< 0.2
Zinc (dissolved)	µg/l	3000	10.9	5.1

PAHs

Naphthalene	µg/l	-	2	< 0.01
Acenaphthylene	µg/l	-		< 0.01
Acenaphthene	µg/l	-		0.38
Fluorene	µg/l	-		0.26
Phenanthrene	µg/l	-		0.86
Anthracene	µg/l	-	0.1	0.29
Fluoranthene	µg/l	-	0.0063	0.58
Pyrene	µg/l	-		0.42
Benzo(a)anthracene	µg/l	-		< 0.01
Chrysene	µg/l	-		< 0.01
Benzo(b)fluoranthene	µg/l	0.1 (sum)	0.0002	< 0.01
Benzo(k)fluoranthene	µg/l		0.0002	< 0.01
Benzo(a)pyrene	µg/l		0.0002	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l		0.0002	< 0.01
Dibenz(a,h)anthracene	µg/l	-		< 0.01
Benzo(ghi)perylene	µg/l	0.01	0.0002	< 0.01
Total EPA-16 PAHs	µg/l	-		2.79

TPH

TPH - Aliphatic >EC5 - EC6 _{HS_1D_AL}	µg/l	300	20	< 1.0
TPH - Aliphatic >EC6 - EC8 _{HS_1D_AL}	µg/l	300	20	< 1.0
TPH - Aliphatic >EC8 - EC10 _{HS_1D_AL}	µg/l	300	20	< 1.0
TPH - Aliphatic >EC10 - EC12 _{EH_1D_AL_MS}	µg/l	300	20	< 10
TPH - Aliphatic >EC12 - EC16 _{EH_1D_AL_MS}	µg/l	300	20	< 10
TPH - Aliphatic >EC16 - EC21 _{EH_1D_AL_MS}	µg/l	Insoluble	-	< 10
TPH - Aliphatic >EC21 - EC35 _{EH_1D_AL_MS}	µg/l	Insoluble	-	< 10
TPH - Aliphatic >EC5 - EC35 _{HS+EH_1D_AL_MS}	µg/l	-		< 10
TPH - Aromatic >EC5 - EC7 _{HS_1D_AR}	µg/l	1	10	< 1.0
TPH - Aromatic >EC7 - EC8 _{HS_1D_AR}	µg/l	700	74	< 1.0
TPH - Aromatic >EC8 - EC10 _{HS_1D_AR}	µg/l	300	20	< 1.0
TPH - Aromatic >EC10 - EC12 _{EH_1D_AR_MS}	µg/l	90	2	< 10
TPH - Aromatic >EC12 - EC16 _{EH_1D_AR_MS}	µg/l	90	2	25
TPH - Aromatic >EC16 - EC21 _{EH_1D_AR_MS}	µg/l	90	0.1	10
TPH - Aromatic >EC21 - EC35 _{EH_1D_AR_MS}	µg/l	90	0.0002	< 10
TPH - Aromatic >EC5 - EC35 _{HS+EH_1D_AR_MS}	µg/l	-		35
TPH Total (>EC5 - EC40) _{HS+EH_1D_TOTAL_MS}	µg/l	-		35

BTEX and MTBE

MTBE (Methyl Tertiary Butyl Ether)	µg/l	15	-	< 3.0
Benzene	µg/l	1	10	< 3.0
Toluene	µg/l	700	74	< 3.0
Ethylbenzene	µg/l	300	20	< 3.0
p & m-xylene	µg/l	500	30	< 3.0
o-xylene	µg/l			< 3.0



Appendix I Pre-construction Information (PCI)



Date: September 2024



Our close collaborative approach with clients ensures successful delivery of all projects and we achieve this with best practice and safe, state of the art investigation methods.





Scours Lane, Tilehurst, Reading.

OS X (Eastings)	468638
OS Y (Northings)	174307
Nat Grid	SU686743 / SU6863874307
Nearest Post Code	RG30 6BX
Lat (WGS84)	N51:27:49 (51.4635828405867)
Long (WGS84)	W1:00:48 (-1.0133575180433905)
Lat,Long (WGS84)	51.4635828405867, -1.0133575180433905
Lat (OSGB36)	N51:27:47 (51.46308110100548)
Long (OSGB36)	W1:00:43 (-1.0118537136957753)
Lat,Long (OSGB36)	51.46308110100548, -1.0118537136957753
what3words	grapes.wisely.heads
Open Loc/Plus code	9C3WFX7P+CMJ

Utility Type	Company	In-house Search	In Vicinity of Development	Not In Vicinity of Development	No Response Received to date
Water Mains	Thames Water		10/09/2024		
Drainage	Thames Water		10/09/2024		
Gas	SGN		10/09/2024		
Openreach (BT)	BT	x	10/09/2024		
CATV	Virgin	x	10/09/2024		
Electric	SSEN		10/09/2024		
Communication	CA			10/09/2024	
	Sky			10/09/2024	
	OCU		10/09/2024		
	Last Mile			10/09/2024	
	Zayo Europe			10/09/2024	
	Sky			10/09/2024	
	EU Networks			10/09/2024	
	Turner Townsend			10/09/2024	
	Vodafone			10/09/2024	
	Verizon			10/09/2024	
	Neos		10/09/2024		
	Cityfibre		10/09/2024		
	gtc		10/09/2024		
Environment Agency				10/09/2024	
Tunnels & Pipelines	Local District Heating			10/09/2024	
	Thames Water Ring Main			10/09/2024	
	Post Office Tunnels			10/09/2024	
	Cemex (Cement Tunnel)			10/09/2024	
	MOD			10/09/2024	
	BPA Stanlow Lines			10/09/2024	
	CHL (Fisher German) Total			10/09/2024	
Transport	TFL			10/09/2024	
	Network Rail		10/09/2024		
	Crossrail			10/09/2024	
	TFL			10/09/2024	
	Docklands Light Railway			10/09/2024	
	Private Rail Lines			10/09/2024	
	Trams			10/09/2024	
	Traffic Master			10/09/2024	
Not Affected Also					
	AWE Pipeline Esso Petroleum Company Limited Perenco UK Limited (Purbeck Southampton Pipeline) BOC Limited Fulcrum Pipelines Limited Petroineos BP Midstream Pipelines Phillips 66 Gateshead Energy Company Premier Transmission Ltd (SNIP) Carrington Gas Pipeline		CATS Pipeline c/o Wood Group PSN Humbly Grove Energy Redundant Pipelines - LPDA Cemex IGas Energy RWEpower (Little Barford and South Haven) Centrica Energy Ineos Enterprises Limited SABIC UK Petrochemicals Centrica Storage Ltd		

Apparatus	
Electric:	
DNO	Distribution Network Operator
iDNO	Independent Distribution Network Operator
ICP	Independent Connections Provider
LV	Low Voltage
HV	High Voltage
EHV	Extra High Voltage
kVA	Kilovolt Amperes
MVA	Megavolt Amperes
AC	Alternating Current
S/S	Substation
PMT	Pole Mounted Transformer
Gas:	
GT	Gas Transporter
iGT	Independent Gas Transporter
UIP	Utility Infrastructure Provider
PRS	Pressure Reducing Station (Governor)
LP	Low Pressure
MP	Medium Pressure
IP	Intermediate Pressure
HP	High Pressure
Water:	
SLO	Self Lay Organisation
Incumbent	Local Water only or Water & Sewerage Company
WRAS	Water Regulation Advisory Scheme
Other:	
PE	Polyethylene
DI	Ductile Iron
ST	Steel
CI	Cast Iron
SI	Spun Iron
HPPE	High Performance Polyethylene
MDPE	Medium Density Polyethylene
CATV	Cable Television
GRP	Glass Reinforced Plastic
FTTP	Fibre to the premise
FTTC	Fibre to the cabinet
l/min	Litres per minute
H&S	Health and Safety
HBF	House Builders Federation
TPO	Tree Preservation Order

Desk Research – A cross in this column indicates that the response has been determined In-house.

In Vicinity – *Utility plant is expected to be within, adjacent to or very close to the search area. It is recommended to liaise with the utility in advance of any works taking place.*

Not In Vicinity – *Utility plant is not expected to be within, adjacent to or very close to the search area. It may be located some distance from the search area.*

No Response Received – *No response has been received from the utility to date.*

Relevant Documents

The following documents must be referred to before work commences in the vicinity of existing services

Health and Safety Booklet HS (GS) 6 Avoidance of Danger from Overhead Electric Lines.

General Safety Measures to Avoid Injury and Damage to Gas Apparatus.

HSE Guidance Note HS (G) 47 Avoiding Danger from Underground Services.

National Joint Utilities Group (NJUG) Publications Vol. 1.

CDM Regulations 2007 (Regulation 34 – Energy Distribution Installations).

Electricity at Work Regulations 1989.

Basic Risk Assumption for all Services

When dealing with existing services the following assumptions must always be accepted:

All existing buildings have gas, water electric and telecom supplies to them until proven otherwise.

Any supply to an existing building, no matter how old the building is or how deteriorated the supply may appear, is taken to be 'live' until proven otherwise.

All open land, vacant lots and derelict sites are deemed to have services beneath them until proven otherwise.

The only acceptable proof that a service is 'dead' and can be removed is written confirmation from the owner of the service.

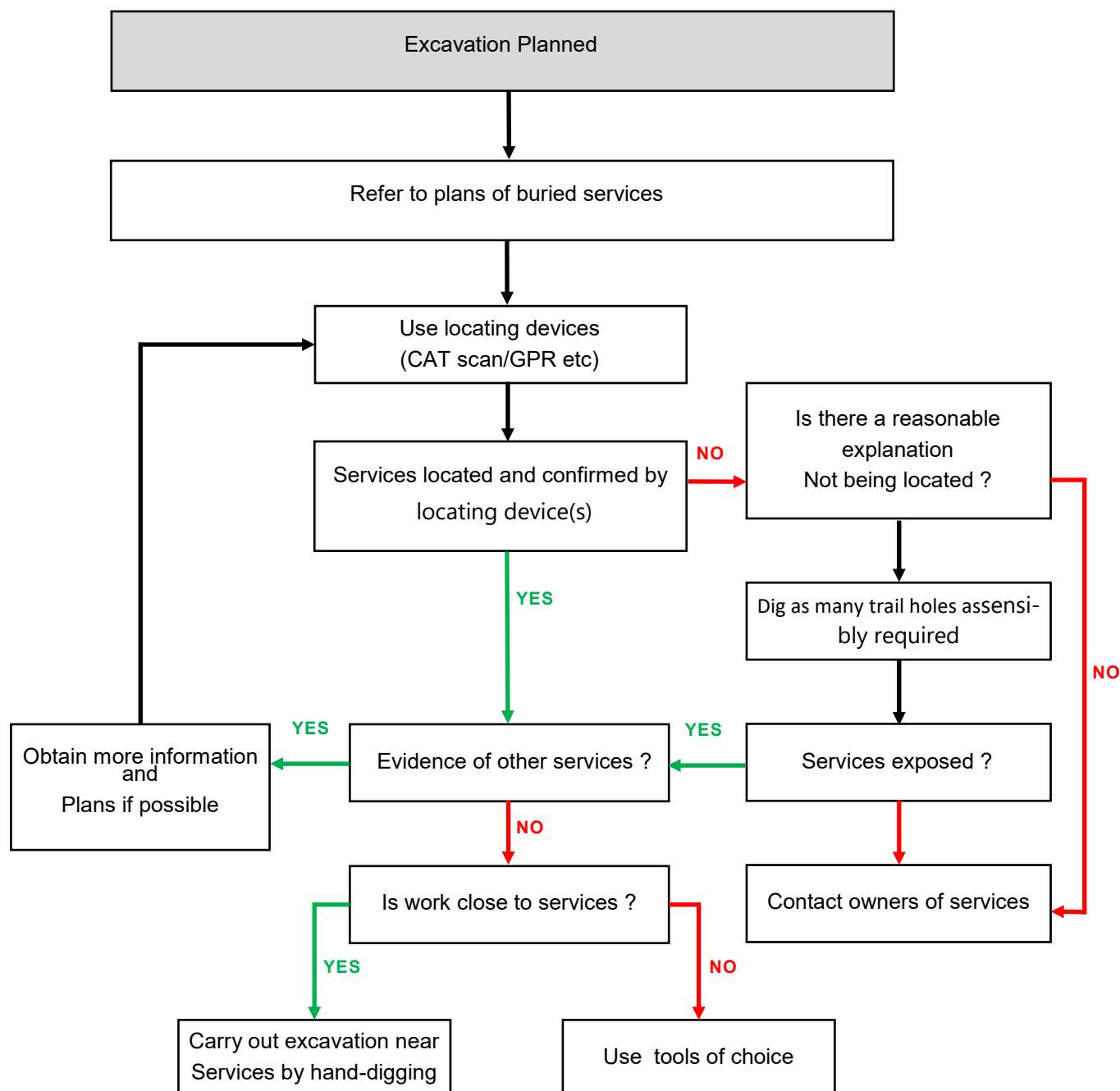
The quality and accuracy of information provided by utilities about their existing plant is indicative and no warranty is made as to its accuracy. Therefore, any utility record plans and/or marked up drawings provided by each utility must only be used as a guide and the actual location of plant should be verified by CAT Scan or trial holes before construction works commence. Please note not all service connections are shown on the utility record plans.

Plant Found Within Site Boundaries

Where utility plant is found within the site boundary, it is recommended for the client to check for legal easements or wayleaves.

Diversions of plant within site boundaries can be expensive and time consuming to relocate. Further investigation of costs and timescales are recommended. Please ask PES for further details.

This flow diagram is intended to help give an understanding of the process from referring to plans on-site through to the start of excavation.



For example, could services be non-metallic pipes? Please refer to HS (G) 47 text for further information.

† In particular; visual evidence. Ensure that the presence of services, which may be unmarked on plans or for which no plans are available, has been considered, for example service connections.

*** If there is visual evidence of services, but owners cannot be traced, despite all reasonable attempts to do so, any excavation could proceed but using hand-dug trial holes and proceeding with great care.*

Guidelines on the Positioning and Colour Coding of Underground Utilities' Apparatus
Recommended Colour Coding of Underground Utilities Apparatus.
All depths are from the surface level to the crown of the apparatus.

Utility	Duct	Pipe	Cable	Marker Systems	Recommended Minimum Depths	
					Footway Verge	Carriageway
Electricity HV (High Voltage)	Black or red duct or tile	N/A	Red or black	Yellow with black and red legend or concrete tiles	450mm - 1200mm	750m - 1200mm
Electricity LV (Low Voltage)	Black or red duct or tile	N/A	Black or red	Yellow with black legend		750mm
Gas	Yellow	* See row below	N/A	Black legend on PE pipes every linear metre.	600mm footway 750mm verge	750mm
	*** PE - up to 2 bar - yellow or yellow with brown stripes (removable skin revealing white or black core pipe). - between 2 to 7 bar -orange. Steel pipes may have yellow wrap or black tar coating or no coating. Ductile Iron may have plastic wrapping Asbestos & Pit / Spun Cast Iron – No distinguishable colour					
Water non Potable & Grey Water	N/A	Black with green stripes	N/A	N/A	600mm - 750mm	600mm - 750mm
Water - Fire-fighting	N/A	Black with red stripes or bands	N/A	N/A	600mm - 750mm	600mm - 750mm
Oil / fuel pipelines	N/A	Black	N/A	Various Surface markers Marker tape or tiles above red concrete	900mm All work within 3 metres of oil fuel pipelines must receive prior approval	900mm All work within 3 metres of oil fuel pipelines must receive prior approval
Sewerage	Black	No distinguishing colour / material (eg: Ductile Iron may be red; PVC may be brown)	N/A	N/A	Variable	Variable
Communications	Grey, white, green, black, purple	N/A	Black or Light Grey	Various	250mm - 350mm	750mm minimum
Water 	Blue or Grey	Blue polymer or blue or uncoated Iron / GRP. Blue polymer with brown stripe (removable skin reveal-	N/A	Blue or blue/black	750mm	750mm minimum
Water pipes for special purposes (e.g. contaminated ground) 	N/A	Blue polymer with brown stripes (non removable skin)	N/A	Blue or blue/black	750mm	750mm minimum

*These guidelines describe utility industry practice. However, it should not be assumed that all apparatus will conform the recommendations for positioning and colour coding contained in this report.

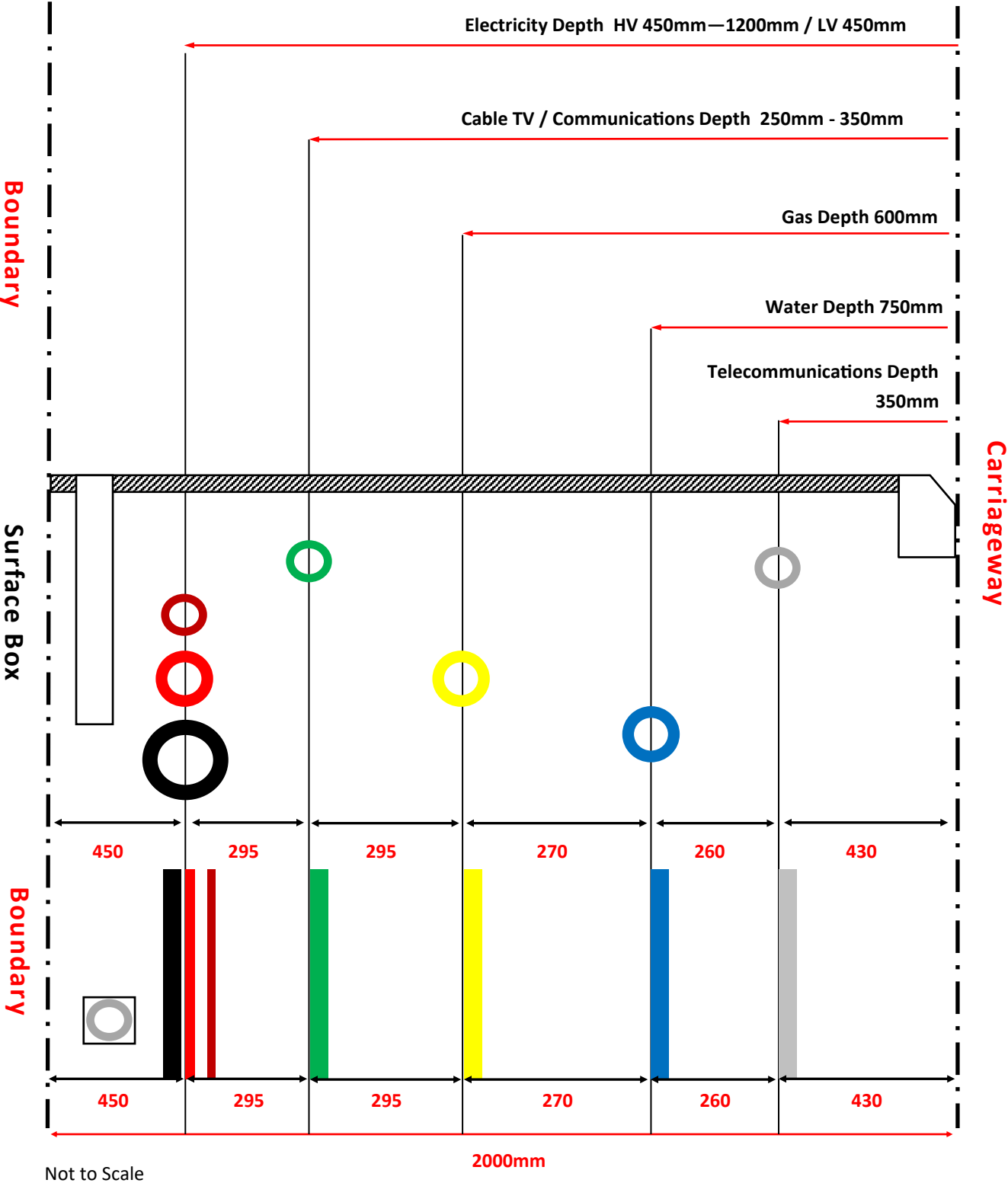
Recommended Colour Coding of Other Underground Apparatus
All depths are from the surface level to the crown of the apparatus.

Utility	Duct	Pipe	Cable	Marker Systems	Recommended Minimum Depths	
					Footway Verge	Carriageway
At the time of publication the following were current examples of known highway authority apparatus colour coding but local variations may occur.						
Street Lighting						
England and Wales	Orange	N/A	Black	Yellow with black legend	450mm	600mm
Scotland	Purple	N/A	Purple	Yellow with black legend	450mm	450mm
Northern Ireland	Orange	N/A	Black or orange		450mm	450mm
Other						
Traffic Control	Orange	N/A	Orange	Yellow with black legend		
Street Furniture		N/A	Black	Yellow with black legend	450mm	600mm
Communications		N/A	Light grey or black	Yellow with black legend		
CCTV	Purple	N/A		Yellow with black legend		
Motorways and Trunk Roads England and Wales						
Communications	Purple	N/A	Grey	Yellow with black legend	450mm	
Communications Power	Purple	N/A	Black	Yellow with black legend		
Road Lighting	Orange	N/A	Black	Yellow with black legend		
Scotland						
Communications  	Black or grey	N/A	Black	Yellow with black legend		
Road Lighting	Purple	N/A	Purple	Yellow with black legend		

*These guidelines describe utility industry practise. However, it should not be assumed that all apparatus will confirm to the recommendations for Positioning and colour coding contained in this publication.

NJUG Guidelines on the Positioning and Colour Coding of Underground Utilities
Recommended Positioning of Utility Apparatus in a 2 metre Footway (s)

Note - the same positioning should apply in the carriageway service strip (if safe and practical to do so) where a development has footways).
available for services and or the boundary of the property in on the carriageway (please refer to minimum depths in carriageways)
For further advise please contact the asset owner.



Other warnings

WARNING
 PIPELINE OFFSET
 BEHIND MARKER

The markers may not always be directly over the pipeline. In which case an additional warning sticker will indicate the direction of offset.




CAUTION
 THIS STRUCTURE IS IN CLOSE PROXIMITY TO A HIGH PRESSURE OIL PIPELINE. BEFORE COMMENCING ANY EXCAVATION WORK PLEASE CALL
FREEPHONE 0800 XXXXXX.

You may find signs such as these on apparatus close to the pipeline.

When the pipeline route has been located it will be marked with location pegs.

Pole warning marker

IMPORTANT
 Marker posts only denote the presence of our pipelines. Never presume that the pipeline runs in a straight line between marker posts as there could either be a bend or the posts may have been moved without our knowledge.
DO NOT PRESUME ANYTHING. TELEPHONE OUR AGENTS AND WE WILL SEND SOMEONE TO VERIFY EXACTLY WHERE THE PIPELINE IS SITUATED.



Typical pipeline Markers

LINEWATCH WEBSITE
www.linewatch.co.uk

Awareness and preparation is the key to safe excavation













Revision No. 06.1

Typical pipeline markers


Mainline marker post


Huntsman marker post


BPA marker post


ConocoPhillips marker post


MLP marker post


BP marker post


Esso marker posts


Total marker post


GPSS marker post


Shell marker posts


New design marker post

Typical pipeline aerial markers


Shell aerial marker


Esso & MLP aerial marker

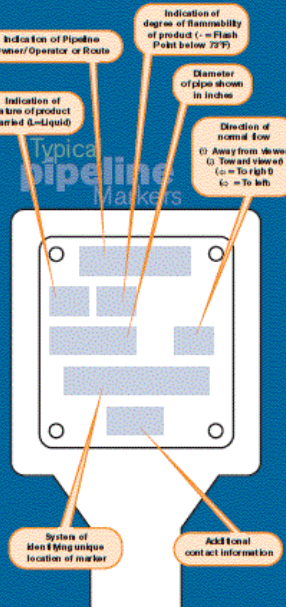

GPSS aerial marker


BP aerial marker


Plain orange with white stick

BPA, ConocoPhillips, Total/Huntsman have similar aerial markers to left

Standard symbols on marker posts



- Indication of Pipeline Owner/Operator or Route
- Indication of degree of flammability of product (i.e. Flash Point below 73°F)
- Indication of nature of product carried (G-Liquid)
- Diameter of pipe shown in inches
- Direction of normal flow (G - Away from viewer) (L - Toward viewer) (o - To right) (e - To left)
- System of identification unique location of marker
- Additional contact information

The above information may not appear in the same order as indicated and some items may be omitted

Useful pipeline enquiry sites
www.linewatch.co.uk
 for links to individual pipeline websites
www.linesearch.org



Your reference

SCOURS LANE TILEHURST

Our reference

ALS/ALS Standard/2024_5043627

Search date

3 September 2024

Notification of Price Changes

From 1st April 2024 Thames Water Property Searches will be increasing the prices of its CON29DW Residential and Commercial searches along with the Asset Location Search. Costs will rise in line with RPI as per previous years, which is sat at 6%.

Customers will be emailed with the new prices by February 28th 2024.

Any orders received with a higher payment prior to the 1st April 2024 will be non-refundable. For further details on the price increase please visit our website at www.thameswater-propertysearches.co.uk.



Thames Water Utilities Ltd
Property Searches, PO Box 3189, Slough SL1 4WW



searches@thameswater.co.uk
www.thameswater-propertysearches.co.uk



0800 009 4540

Search address supplied: 12 Riverside Park, Scours Lane, Tilehurst, Reading, RG30 6AX

Dear Sir / Madam

An Asset Location Search is recommended when undertaking a site development. It is essential to obtain information on the size and location of clean water and sewerage assets to safeguard against expensive damage and allow cost-effective service design.

The following records were searched in compiling this report: - the map of public sewers & the map of waterworks. Thames Water Utilities Ltd (TWUL) holds all of these.

This search provides maps showing the position, size of Thames Water assets close to the proposed development and also manhole cover and invert levels, where available.

Please note that none of the charges made for this report relate to the provision of Ordnance Survey mapping information. The replies contained in this letter are given following inspection of the public service records available to this company. No responsibility can be accepted for any error or omission in the replies.

You should be aware that the information contained on these plans is current only on the day that the plans are issued. The plans should only be used for the duration of the work that is being carried out at the present time. Under no circumstances should this data be copied or transmitted to parties other than those for whom the current work is being carried out.

Thames Water do update these service plans on a regular basis and failure to observe the above conditions could lead to damage arising to new or diverted services at a later date.

Contact Us

If you have any further queries regarding this enquiry please feel free to contact a member of the team on 0800 009 4540, or use the address below:

Thames Water Utilities Ltd
Property Searches
PO Box 3189
Slough
SL1 4WW

Email: searches@thameswater.co.uk

Web: www.thameswater-propertysearches.co.uk

Waste Water Services

Please provide a copy extract from the public sewer map.

Enclosed is a map showing the approximate lines of our sewers. Our plans do not show sewer connections from individual properties or any sewers not owned by Thames Water unless specifically annotated otherwise. Records such as "private" pipework are in some cases available from the Building Control Department of the relevant Local Authority.

Where the Local Authority does not hold such plans it might be advisable to consult the property deeds for the site or contact neighbouring landowners.

This report relates only to sewerage apparatus of Thames Water Utilities Ltd, it does not disclose details of cables and or communications equipment that may be running through or around such apparatus.

The sewer level information contained in this response represents all of the level data available in our existing records. Should you require any further Information, please refer to the relevant section within the 'Further Contacts' page found later in this document.

For your guidance:

- The Company is not generally responsible for rivers, watercourses, ponds, culverts or highway drains. If any of these are shown on the copy extract they are shown for information only.
- Any private sewers or lateral drains which are indicated on the extract of the public sewer map as being subject to an agreement under Section 104 of the Water Industry Act 1991 are not an 'as constructed' record. It is recommended these details be checked with the developer.

Clean Water Services

Please provide a copy extract from the public water main map.

Enclosed is a map showing the approximate positions of our water mains and associated apparatus. Please note that records are not kept of the positions of individual domestic supplies.

For your information, there will be a pressure of at least 10m head at the outside stop valve. If you would like to know the static pressure, please contact our Customer Centre on 0800 316 9800. The Customer Centre can also arrange for a full flow and

pressure test to be carried out for a fee.

For your guidance:

- Assets other than vested water mains may be shown on the plan, for information only.
- If an extract of the public water main record is enclosed, this will show known public water mains in the vicinity of the property. It should be possible to estimate the likely length and route of any private water supply pipe connecting the property to the public water network.

Payment for this Search

A charge will be added to your suppliers account.

Further contacts:

Waste Water queries

Should you require verification of the invert levels of public sewers, by site measurement, you will need to approach the relevant Thames Water Area Network Office for permission to lift the appropriate covers. This permission will usually involve you completing a TWOSA form. For further information please contact our Customer Centre on Tel: 0845 920 0800. Alternatively, a survey can be arranged, for a fee, through our Customer Centre on the above number.

If you have any questions regarding sewer connections, budget estimates, diversions, building over issues or any other questions regarding operational issues please direct them to our service desk. Which can be contacted by writing to:

Developer Services (Waste Water)
Thames Water
Clearwater Court
Vastern Road
Reading
RG1 8DB

Tel: 0800 009 3921
Email: developer.services@thameswater.co.uk

Clean Water queries

Should you require any advice concerning clean water operational issues or clean water connections, please contact:

Developer Services (Clean Water)
Thames Water
Clearwater Court
Vastern Road
Reading
RG1 8DB

Tel: 0800 009 3921
Email: developer.services@thameswater.co.uk

Asset Location Search Sewer Map - ALS/ALS Standard/2024_5043627

SR

Landing Stage

FB

37.9m

Def

Outlet

5652

5550

Marine Service Station

Riverview Flat

Kennels

RIVERSIDE PARK

SCOURSLANE LANE

3000940

6451

5453

38.2m

ESS

38.1m

5452

Scourslane Junction

4402

4452

El Sub Sta

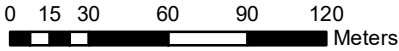
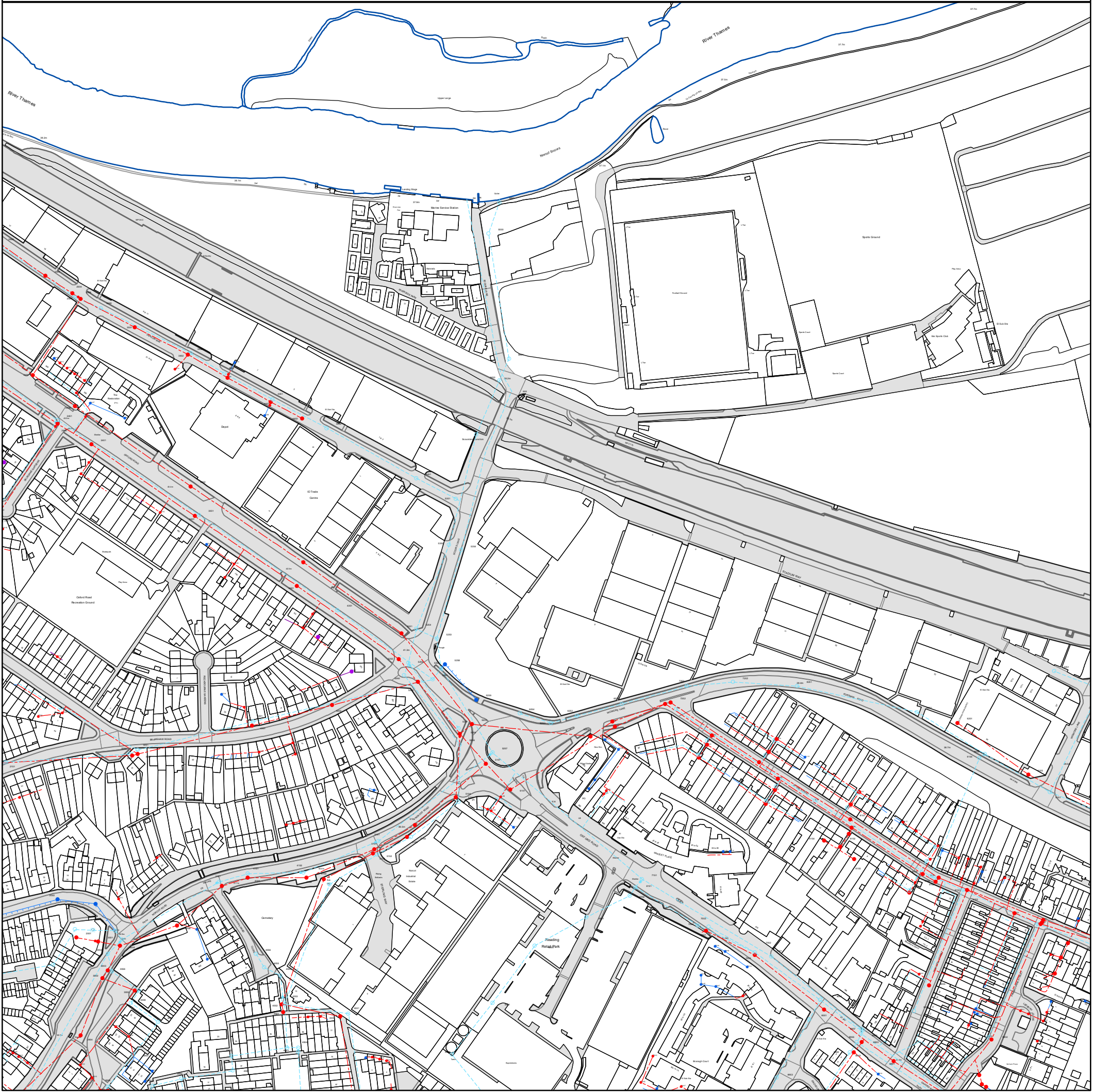
1 to 3

40m

The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.

NB. Levels quoted in metres Ordnance Newlyn Datum. The value -9999.00 indicates that no survey information is available

Manhole Reference	Manhole Cover Level	Manhole Invert Level
5452	38.08	n/a
4452	42.25	39.95
4402	42.38	40.99
5453	n/a	n/a
6451	n/a	n/a
5550	38.31	36.31
5652	37.42	36.3
The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.		



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Scale: 1:2866
Width: 800m
Printed By: Krishna1
Print Date: 03/09/2024
Map Centre: 468634,174354
Grid Reference: SU6874SE

Comments:

ALS/ALS Standard/2024_5043627

NB: Level quoted in metres Ordnance Newlyn Datum. The value -9999.00 indicates no Survey information is available.

REFERENCE	COVER LEVEL	INVERT LEVEL
5259	42.37	40.87
8964		
4951	52.98	51.69
4101	50.98	48.02
6254	42.31	40.72
6053	44.69	41.69
9052	39.69	38.28
9005	39.29	
6252	41.2	39.45
3101	52.01	49.52
4054	51.59	50.38
3006	54.37	51.43
3452	42.45	40.84
5154	44.96	40.1
5256	42.95	37.83
7001	41.63	39.01
8051	41.44	39.72
5103		
5153	46.8	41.93
7101	39.31	38.06
5257	42.99	37.23
7252	39.62	37.64
2404		
2505	42.6	39.84
2056	59.59	57.07
2001	59.54	57.74
6151	41.84	40.18
2451	43.59	40.4
8251	39.16	37.51
5252	41.74	36.94
7051	41.46	39.07
3001	58.69	55.01
3002	57.15	54.52
3952	57.11	55.5
3301	42.75	39.39
4251	48.23	45.94
4055	52.15	50.6
4451	42.53	40.34
4053	51.1	47.18
6051	43.41	41.39
4003	49.34	46.31
3351	42.66	39
3004	55.85	53.53
4301		
4954	50.67	49.43
2503	42.85	41.45
4202	44.87	42.48
8957	41.37	39.58
8951	41.37	39.41
9154	38.77	37.17
4103		
7202	39.88	38.33
9252	39.01	37.33
5152	47.08	43.35
5652	37.42	36.3
4452	42.25	39.95
8901	41.59	37.86
0251	38.95	37.82
7053	41.61	38.61
3058	57.37	55.15
3005	57.55	55.04
3201	53.04	51.2
3151	52.07	49.2
5202	41.3	39.06
4402	42.38	40.99
4302	42.13	39.05
6251	40.39	38.73
5451	39.54	38.26
301C		
3302	43	39.22
7052	41.56	39.88
5354	39.51	35.74
5258	41.78	39.9
8052	41.61	40.11
8101	38.9	37.76
9002	38.33	37.13
5204	42.58	38.88
6101	42.65	38.72
5201	41.23	38.86
5102	47.11	44.47
6202	40.39	38.25

REFERENCE	COVER LEVEL	INVERT LEVEL
5452	38.08	
4952	52.94	51.31
9201		
4151	50.95	
8963		40.63
6253	41.76	40.07
9251	39.04	37.35
9152	38.61	
9103	38.56	37.17
3451	42.57	40.74
4002	50.63	46.2
3953	56.21	55.27
5351	38.93	37.37
5261	42.65	41.07
7054	41.63	40.39
0053		
5260	41.85	37.01
5255	41.3	36.99
5106	45.66	43.34
5051	44.58	42.34
8956	41.45	39.53
7003	41.63	38.42
2904	58.68	56.69
2504	42.63	41.27
2550	42.61	41.21
6052	43.66	41.08
2402	43.69	39.6
5251		
5253	41.25	36.82
5353	39.56	36.79
2401	43.55	39.57
3550	42.46	40.99
5951	44.66	42.73
3057	56.04	55.11
4201	48.33	
4056	52.54	51.04
4401	42.56	40.85
4001	50.53	48
4052	50.55	44.51
9105	39.85	37.97
4051	48.45	44.75
3054	56.37	54.66
4953	50.94	48.77
4959	50.75	
2151	58.66	57.14
4153		
8952	41.39	39.44
8903	41.58	40.05
99JF		
99JH		
4351	41.56	38.59
8953	44.69	43.23
99JJ		
5453		
6451		
7151	41.8	38.39
0151	39.65	37.3
0052		
3252	53.06	51.74
3954	56.39	
3501	42.3	40.13
3059	57.54	55.09
5550	38.31	36.31
7253	40	38.28
4152	49.52	46.51
4102	49.55	46.46
5254	41.18	36.92
391B		
001A		
3251	52.93	51.4
8001	41.55	38.15
2055		
3955	57.67	55.52
9101	38.58	37.12
6203	40.87	38.25
5104	44.17	42.22
5203	42.5	38.7
5107	43.24	38.64
5205	41.93	38.87
5101	46.76	44.16
901C		

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ALS/ALS Standard/2024_5043627

NB: Level quoted in metres Ordnance Newlyn Datum. The value -9999.00 indicates no Survey information is available.

REFERENCE	COVER LEVEL	INVERT LEVEL
8102	38.9	37.48
8103	39.22	37.82
7203	39.81	38.14
711A		
711B		
721A		
721B		
721C		
721E		
9902	39.9	37.56
9102	38.55	37.49
9051	38.37	37.64
9104	38.62	37.25
911F		
811B		
811D		
8153		
8155		
911M		
2405	43.9	39.36
8151	39.11	37.49
6201	40.43	38.41
301A		
9001	38.28	36.95
341A		
241B		
421A		
421B		
511B		
3003		
3402	42.46	40.31
411C		
421C		
241C		
291C		
321A		
911I		
791B		
911K		
911L		
911C		
591H		
591K		
591P		
221B		
241D		
0051		
341B		
241F		
2001	58.97	56.59
3053	55.97	52.19
5151	46.85	43.38
231B		
821A		
301E		
3401	42.6	40.51
711D		
611A		
331A		
421D		
511C		
241H		
241J		
001H		
901F		
911R		
291G		
391D		
791C		
791F		
511D		
241K		
621B		
891A		
901H		
611D		
901K		
901M		
441B		
421F		
701C		

REFERENCE	COVER LEVEL	INVERT LEVEL
9153	38.62	
7201	39.46	37.96
7251	39.77	38.16
811E		
811F		
821B		
711C		
721D		
9956	39.93	
9151	38.54	
9004	38.43	37.34
9003	38.33	37.23
901B		
811A		
811C		
8154		
8152		
3056		
911N		
911G		
911E		
991A		
301B		
001B		
241A		
911D		
431A		
211B		
511A		
3202	53.09	51.29
411B		
411D		
911H		
291B		
291D		
391A		
241E		
911A		
811G		
911B		
591G		
591I		
901A		
221A		
221C		
401A		
401B		
001C		
311A		
3052	56.14	54.03
3051	57.31	55.89
2053	58.81	56.9
91MN		
391C		
811H		
441A		
711E		
611B		
331B		
431B		
241G		
241I		
001G		
901E		
901G		
911S		
291H		
331C		
791G		
611C		
421E		
221D		
621A		
901I		
611E		
901L		
901J		
001I		
421G		
701D		
701G		

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ALS/ALS Standard/2024_5043627

NB: Level quoted in metres Ordnance Newlyn Datum. The value -9999.00 indicates no Survey information is available.

REFERENCE	COVER LEVEL	INVERT LEVEL
701F		
701A		

REFERENCE	COVER LEVEL	INVERT LEVEL
701B		
701E		



Asset Location Search - Sewer Key

Public Sewer Types (Operated and maintained by Thames Water)

	Foul Sewer: A sewer designed to convey waste water from domestic and industrial sources to a treatment works.
	Surface Water Sewer: A sewer designed to convey surface water (e.g. rain water from roofs, yards and car parks) to rivers or watercourses.
	Combined Sewer: A sewer designed to convey both waste water and surface water from domestic and industrial sources to a treatment works.
	Storm Sewer
	Foul Trunk Sewer
	Combined Trunk Sewer
	Surface Water Rising Main
	Foul Rising Main
	Thames Water Proposed
	Vent Pipe
	Gallery
	Sewer
	Culverted Watercourse
	Proposed
	Decommissioned Sewer
	Content of this drainage network is currently unknown
	Ownership of this drainage network is currently unknown

- Notes:**
- 1) All levels associated with the plans are to Ordnance Datum Newlyn.
 - 2) All measurements on the plan are metric.
 - 3) Arrows (on gravity fed sewers) or flecks (on rising mains) indicate the direction of flow.
 - 4) Most private pipes are not shown on our plans, all in the past, this information has not been recorded.

Sewer Fittings

A feature in a sewer that does not affect the flow in the pipe. Example: a vent is a fitting as the function of a vent is to release excess gas.

	Air Valve		Meter
	Dam Chase		Vent
	Filling		

Operational Controls

A feature in a sewer that changes or directs the flow in the sewer. Example: A hydrobrake limits the flow passing downstream.

	Ancillary		Drop Pipe
	Control Valve		Weir

End Items

End symbols appear at the start or end of a sewer pipe. Examples: an Undefined End at the start of a sewer indicates that Thames Water has no knowledge of the position of the sewer upstream of that symbol. Outfall on a surface water sewer indicates that the pipe discharges into a stream or river.

	Intel		Outfall
	Undefined End		

Other Symbols

Symbols used on maps which do not fall under other general categories.

	Change of Characteristic Indicator		Public / Private Pumping Station
	Invert Level		Summit

Areas

Lines denoting areas of underground surveys, etc.

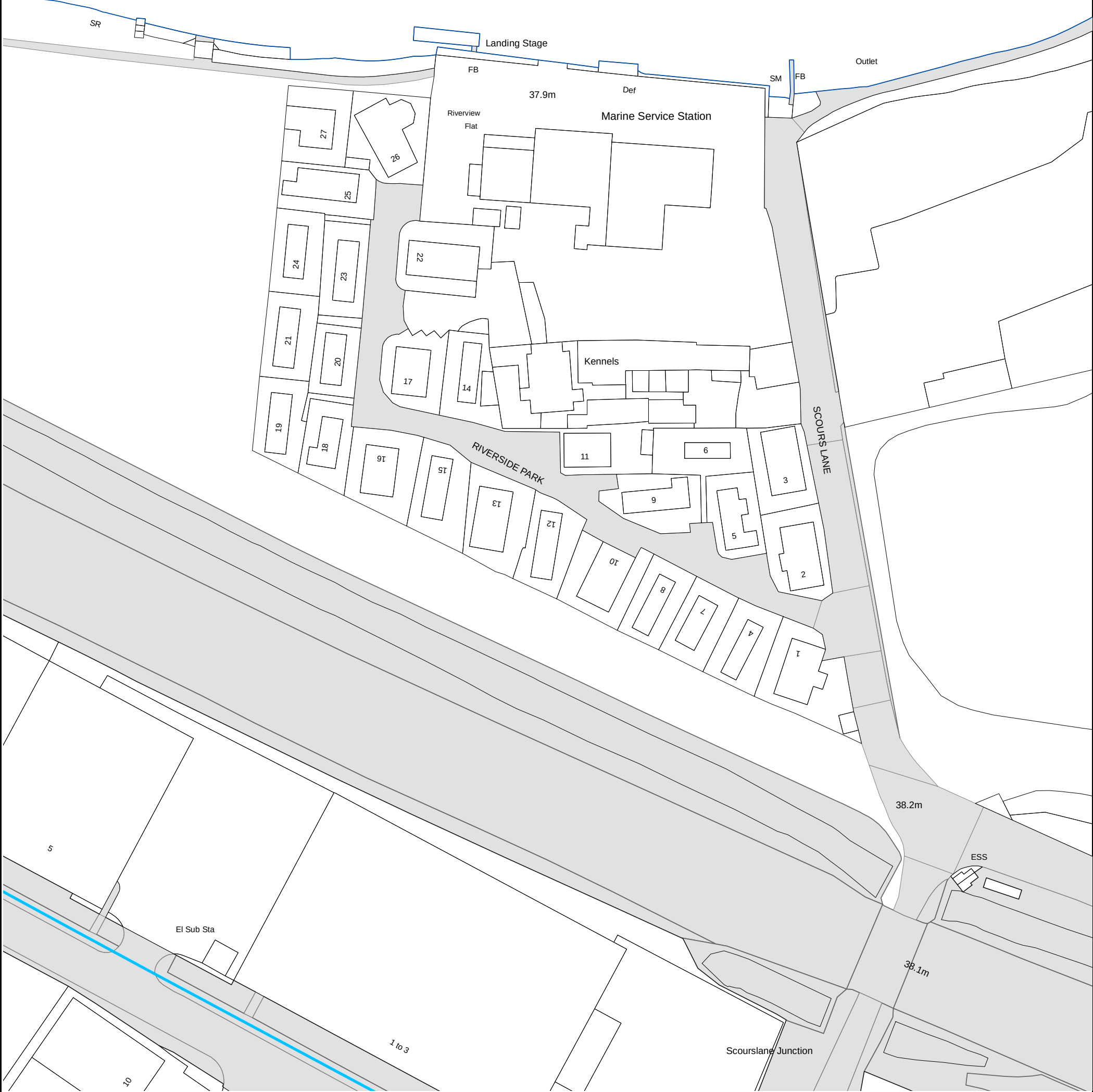
	Agreement		
	Chamber		
	Operational Site		

Ducts or Crossings

Ducts may contain high voltage cables. Please check with Thames Water.

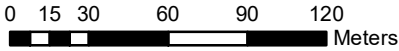
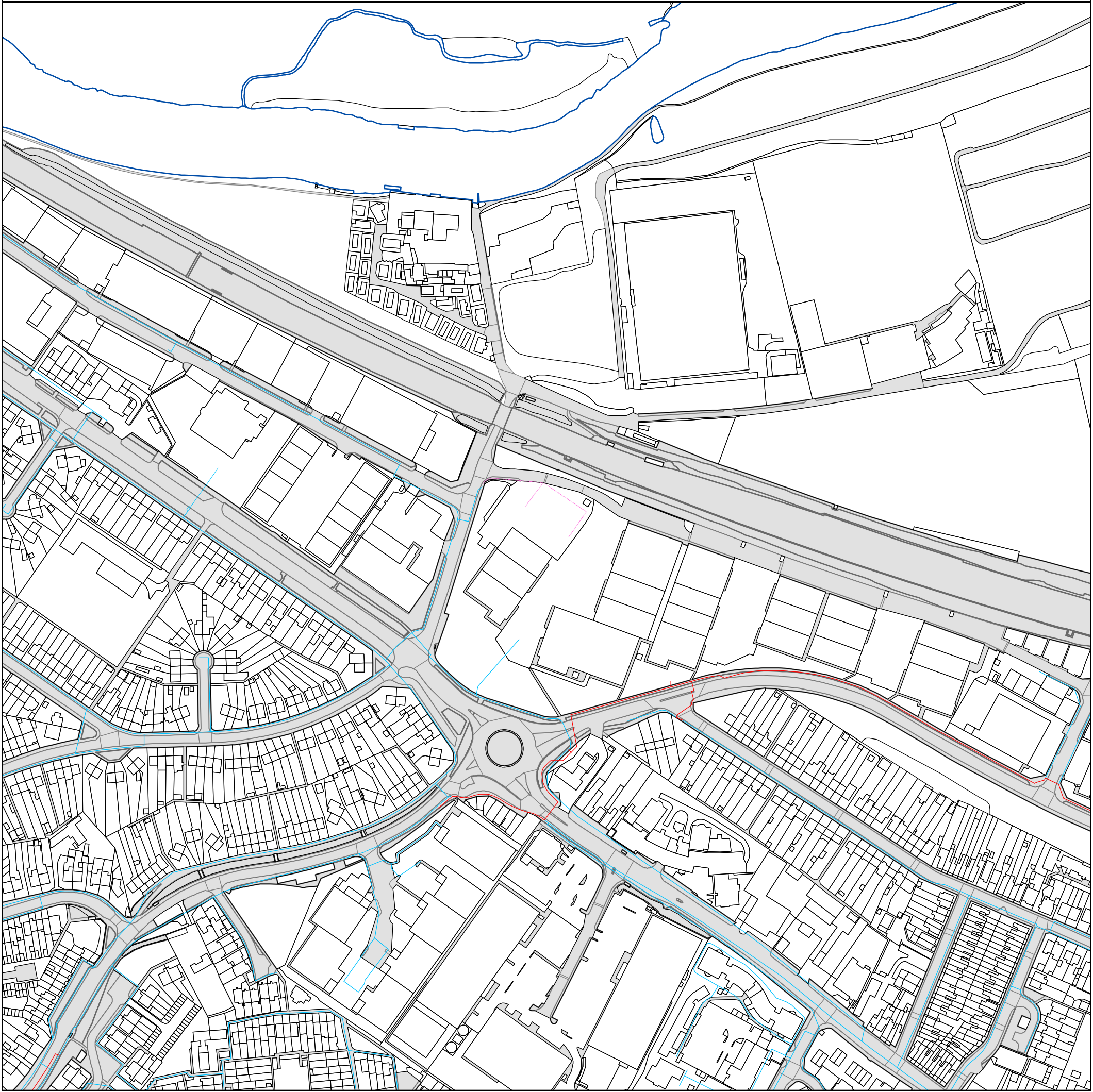
	Casement		
	Conduit Encase		
	Suoway		
	Tunnel		

- 5) 'ue' or 'v' on a manhole indicates that data is unavailable.
- 6) The text appearing alongside a sewer line indicates the internal diameter of the pipe in millimeters. Text next to a manhole indicates the manhole reference number and should not be taken as a measurement. If you are unsure about any text or symbology, please contact Property Searches on 0800 009 4540.



The width of the displayed area is 200 m and the centre of the map is located at OS coordinates 468539, 174525.
The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.

Based on the Ordnance Survey Map (2020) with the Sanction of the controller of H.M. Stationery Office, License no. 100019345 Crown Copyright Reserved.



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Scale: 1:2866
Width: 800m
Printed By: Krishna1
Print Date: 03/09/2024
Map Centre: 468634,174354
Grid Reference: SU6874SE

Comments:



Asset Location Search - Water Key

Water Pipes (Operated & Maintained by Thames Water)

4"
Distribution Main: The most common pipe shown on water maps. With few exceptions, domestic connections are only made to distribution mains.

16"
Trunk Main: A main carrying water from a source of supply to a treatment plant or reservoir, or from one treatment plant or reservoir to another. Also a main transferring water in bulk to smaller water mains used for supplying individual customers.

3" SUPPLY
Supply Main: A supply main indicates that the water main is used as a supply for a single property or group of properties.

3" FIRE
Fire Main: Where a pipe is used as a fire supply, the word FIRE will be displayed along the pipe.

3" METERED
Metered Pipe: A metered main indicates that the pipe in question supplies water for a single property or group of properties and that quantity of water passing through the pipe is metered even though there may be no meter symbol shown.

Transmission Tunnel: A very large diameter water pipe. Most tunnels are buried very deep underground. These pipes are not expected to affect the structural integrity of buildings shown on the map provided.

Proposed Main: A main that is still in the planning stages or in the process of being laid. More details of the proposed main and its reference number are generally included near the main.

PIPE DIAMETER	DEPTH BELOW GROUND
Up to 300mm (12")	900mm (3')
300mm - 600mm (12" - 24")	1100mm (3' 8")
600mm and bigger (24" plus)	1200mm (4')

Valves

- General Purpose Valve
- Air Valve
- Pressure Control Valve
- Customer Valve

Hydrants

- Single Hydrant

Meters

- Meter

End Items

Symbol indicating what happens at the end of a water main.

- Blank Flange
- Capped End
- Emptying Pit
- Undefined End
- Manifold
- Customer Supply
- Fire Supply

Operational Sites

- Booster Station
- Other
- Other (Proposed)
- Pumping Station
- Service Reservoir
- Shaft Inspection
- Treatment Works
- Unknown
- Water Tower

Other Symbols

- Data Logger
- Caseament: Ducts may contain high voltage cables. Please check with Thames Water.

Other Water Pipes (Not Operated or Maintained by Thames Water)

- Other Water Company Main:** Occasionally other water company water pipes may overlap the border of our clean water coverage area. These mains are denoted in purple and in most cases have the owner of the pipe displayed along them.
- Private Main:** Indicates that the water main in question is not owned by Thames Water. These mains normally have text associated with them indicating the diameter and owner of the pipe.

Payment Terms and Conditions

All sales are made in accordance with Thames Water Utilities Limited (TWUL) standard terms and conditions unless previously agreed in writing.

1. All goods remain in the property of Thames Water Utilities Ltd until full payment is received.
2. Provision of service will be in accordance with all legal requirements and published TWUL policies.
3. All invoices are strictly due for payment within 14 days of the date of the invoice. Any other terms must be accepted/agreed in writing prior to provision of goods or service or will be held to be invalid.
4. Penalty interest may be invoked by TWUL in the event of unjustifiable payment delay. Interest charges will be in line with UK Statute Law 'The Late Payment of Commercial Debts (Interest) Act 1998'.
5. Interest will be charged in line with current Court Interest Charges, if legal action is taken.
6. A charge may be made at the discretion of the company for increased administration costs.

A copy of Thames Water's standard terms and conditions are available from the Commercial Billing Team (cashoperations@thameswater.co.uk).

We publish several Codes of Practice including a guaranteed standards scheme. You can obtain copies of these leaflets by calling us on 0800 980 8800.

If you are unhappy with our service, you can speak to your original goods or customer service provider. If you are still not satisfied with the outcome provided, we will refer the matter to a Senior Manager for resolution who will provide you with a response.

If you are still dissatisfied with our final response, and in certain circumstances such as you are buying a residential property or commercial property within certain parameters, The Property Ombudsman will investigate your case and give an independent view. The Ombudsman can award compensation of up to £25,000 to you if he finds that you have suffered actual financial loss and/or aggravation, distress, or inconvenience because of your search not keeping to the Code. Further information can be obtained by visiting www.tpos.co.uk or by sending an email to admin@tpos.co.uk.

If the Goods or Services covered by this invoice falls under the regulation of the 1991 Water Industry Act, and you remain dissatisfied you can refer your complaint to Consumer Council for Water on 0300 034 2222 or write to them at Consumer Council for Water, 1st Floor, Victoria Square House, Victoria Square, Birmingham, B2 4AJ.

Ways to pay your bill

Credit Card	BACS Payment	Telephone Banking
Please Call 0800 009 4540 quoting your invoice number starting CBA or ADS	Account number 90478703 Sort code 60-00-01 A remittance advice must be sent to: Thames Water Utilities Ltd., PO Box 3189, Slough SL1 4WW. or email ps.billing@thameswater.co.uk	By calling your bank and quoting: Account number 90478703 Sort code 60-00-01 and your invoice number

Thames Water Utilities Ltd Registered in England & Wales No. 2366661 Registered Office Clearwater Court, Vastern Rd, Reading, Berks, RG1 8DB.