

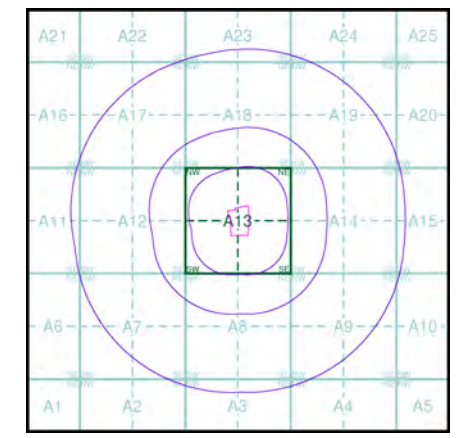
General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

Agency and Hydrological (Flood)

- Extreme Flooding from Rivers or Sea without Defences (Zone 2)
- Flooding from Rivers or Sea without Defences (Zone 3)
- Area Benefiting from Flood Defence
- Flood Water Storage Areas
- Flood Defence

Flood Map - Slice A



Order Details

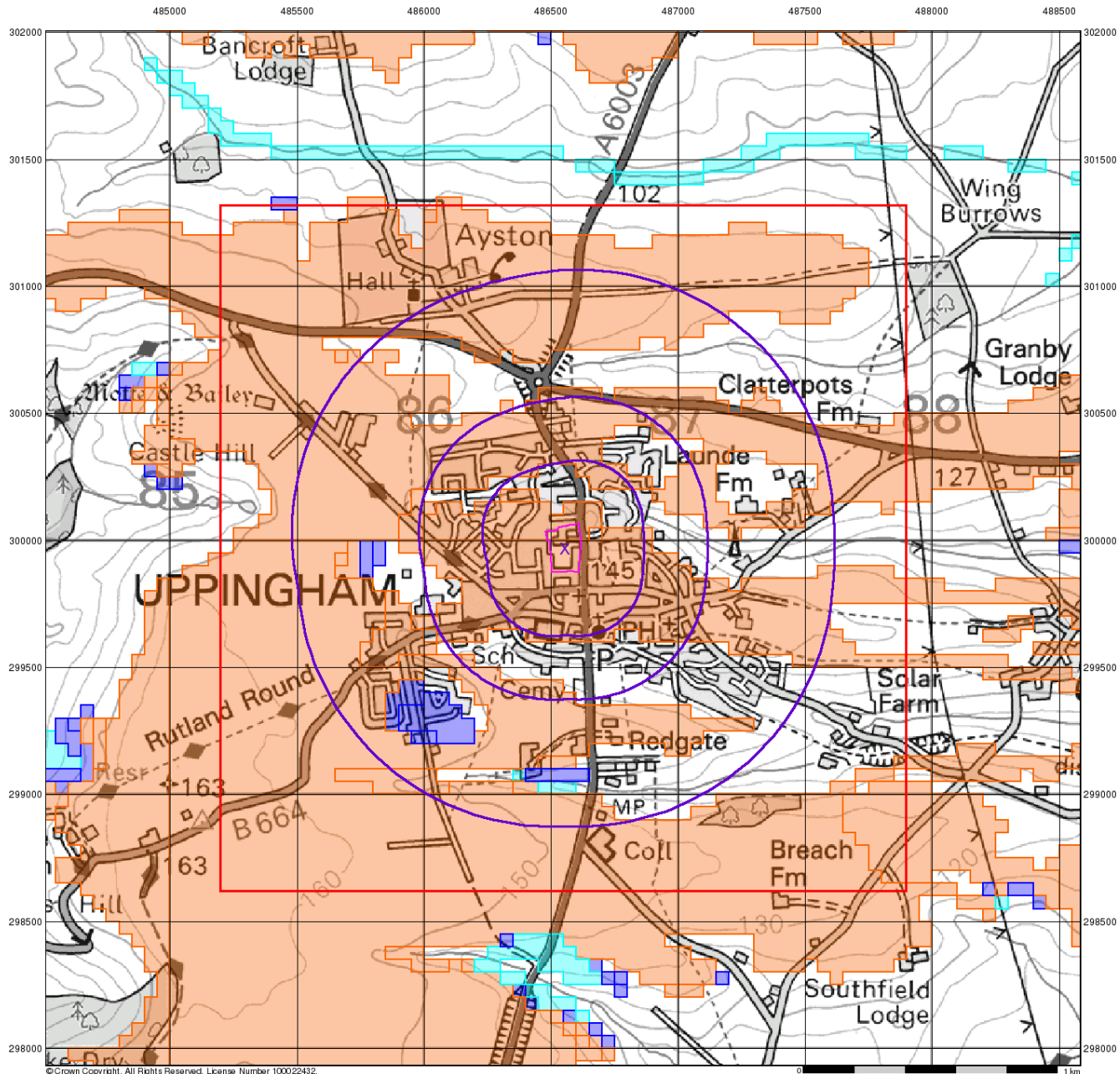
Order Number: 315456184_1_1
 Customer Ref: UK23.6614
 National Grid Reference: 486550, 299970
 Slice: A
 Site Area (Ha): 2.1
 Search Buffer (m): 1000

Site Details

Uppingham School, Meadhurst, Uppingham, LE15 9RP



Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk



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BGS Flood GFS Data

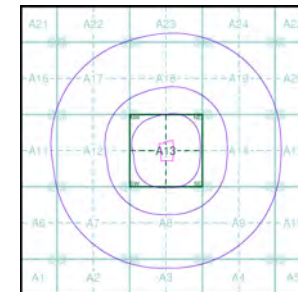
General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice

Agency and Hydrological (Flood)

- Limited Potential for Groundwater Flooding to Occur
- Potential for Groundwater Flooding of Property Situated Below Ground Level
- Potential for Groundwater Flooding to Occur at Surface

Site Sensitivity Context Map - Slice A



Order Details

Order Number: 315456184_1_1
 Customer Ref: UK23.6614
 National Grid Reference: 486550, 299970
 Slice: A
 Site Area (Ha): 2.1
 Search Buffer (m): 1000

Site Details

Uppingham School, Meadhurst, Uppingham, LE15 9RP

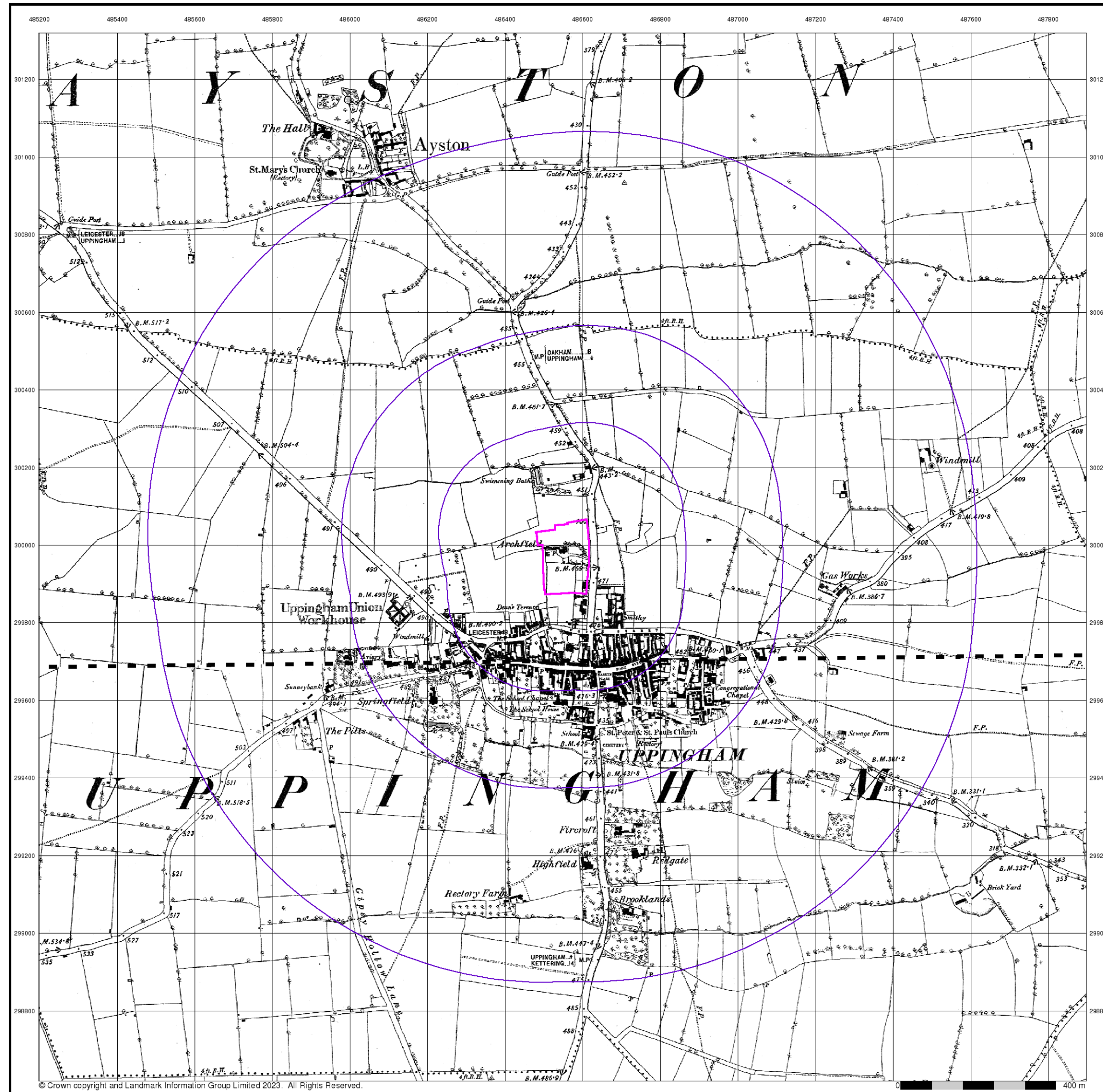


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APPENDIX E

A Selection of Historic Maps



Rutland

Published 1885

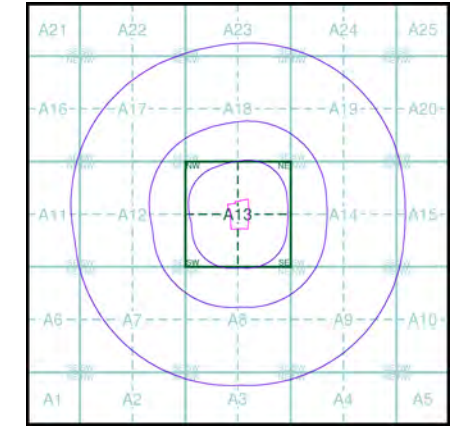
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

013NW	1885	1:10,560
013SW	1885	1:10,560

Historical Map - Slice A



Order Details

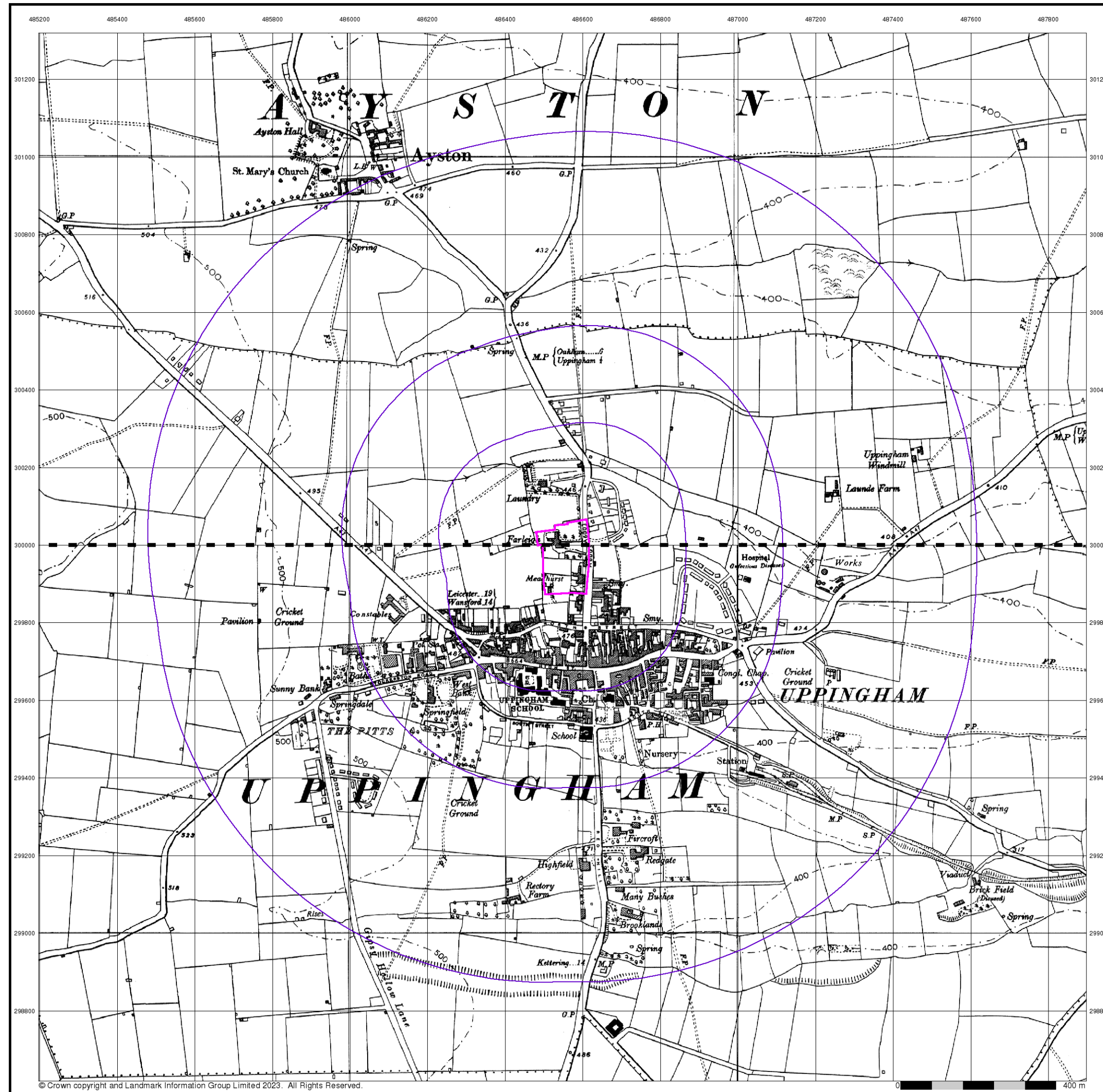
Order Number: 315456184_1_1
 Customer Ref: UK23.6614
 National Grid Reference: 486550, 299970
 Slice: A
 Site Area (Ha): 2.1
 Search Buffer (m): 1000

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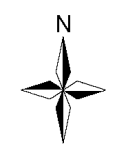
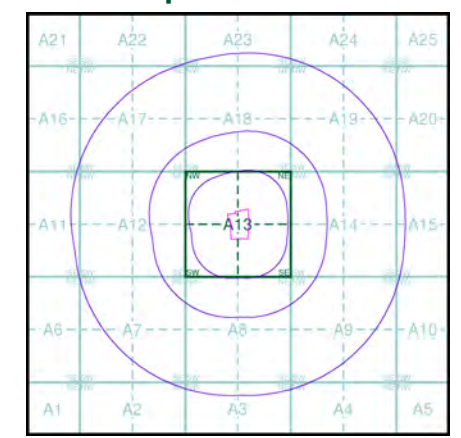
Ordnance Survey Plan
Published 1958
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

SK80SE	1958	1:10,560
SP89NE	1958	1:10,560

Historical Map - Slice A



Order Details

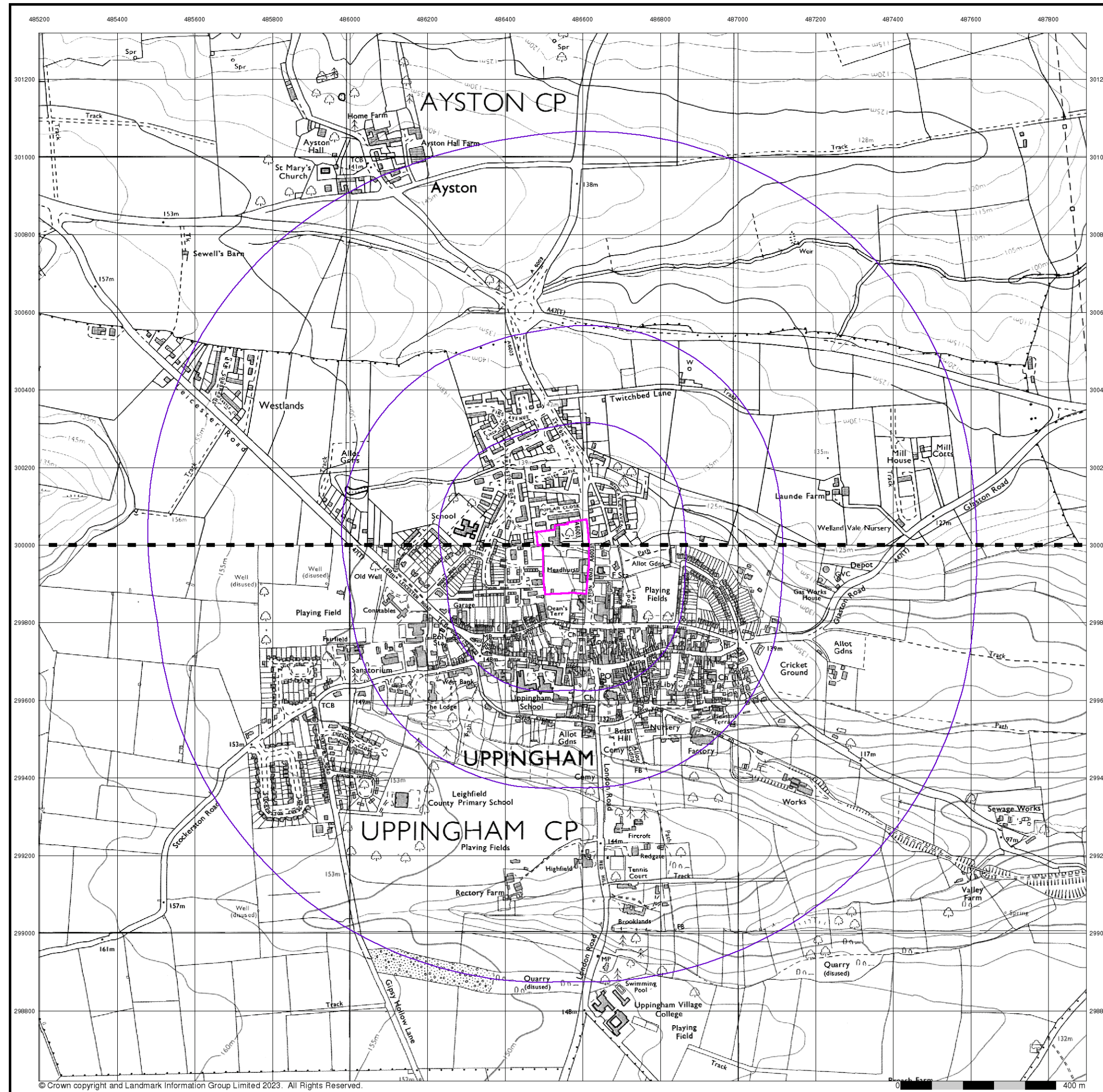
Order Number: 315456184_1_1
 Customer Ref: UK23.6614
 National Grid Reference: 486550, 299970
 Slice: A
 Site Area (Ha): 2.1
 Search Buffer (m): 1000

Site Details

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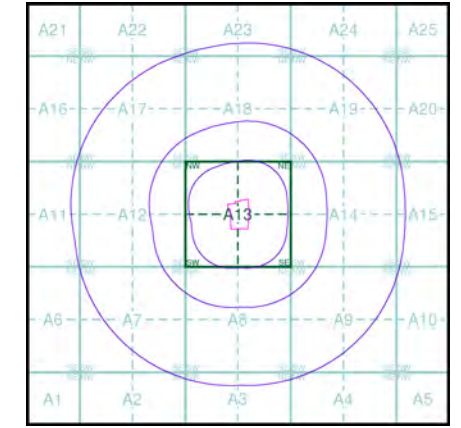
Ordnance Survey Plan
Published 1984 - 1988
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

SK80SE	1988	1:10,000
SP89NE	1984	1:10,000

Historical Map - Slice A



Order Details

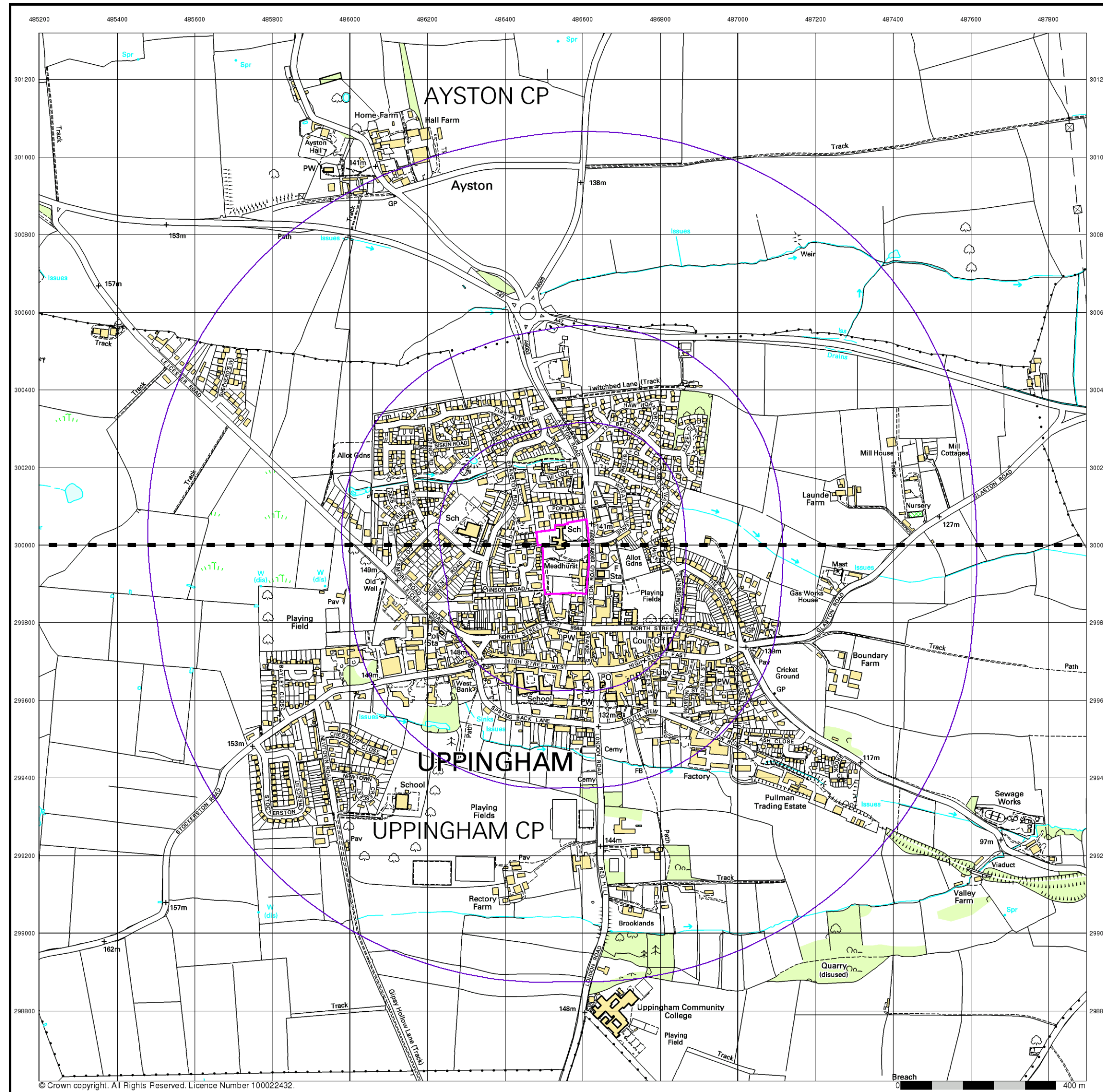
Order Number: 315456184_1_1
 Customer Ref: UK23.6614
 National Grid Reference: 486550, 299970
 Slice: A
 Site Area (Ha): 2.1
 Search Buffer (m): 1000

Site Details

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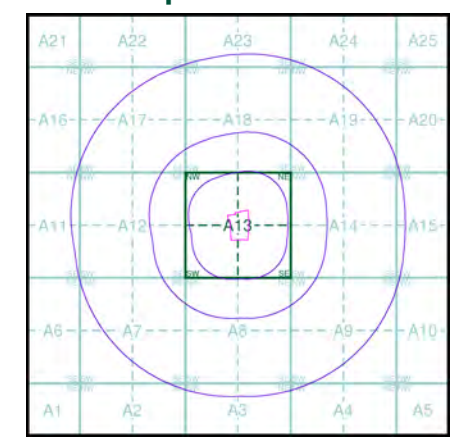
10k Raster Mapping
Published 2006
Source map scale - 1:10,000

The historical maps shown were produced from the Ordnance Survey's 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks and paths. Road names are also included together with the relevant road number and classification. Boundary information depiction includes county, unitary authority, district, civil parish and constituency.

Map Name(s) and Date(s)

SK80SE	2006	1:10,000
SP89NE	2006	1:10,000

Historical Map - Slice A



Order Details

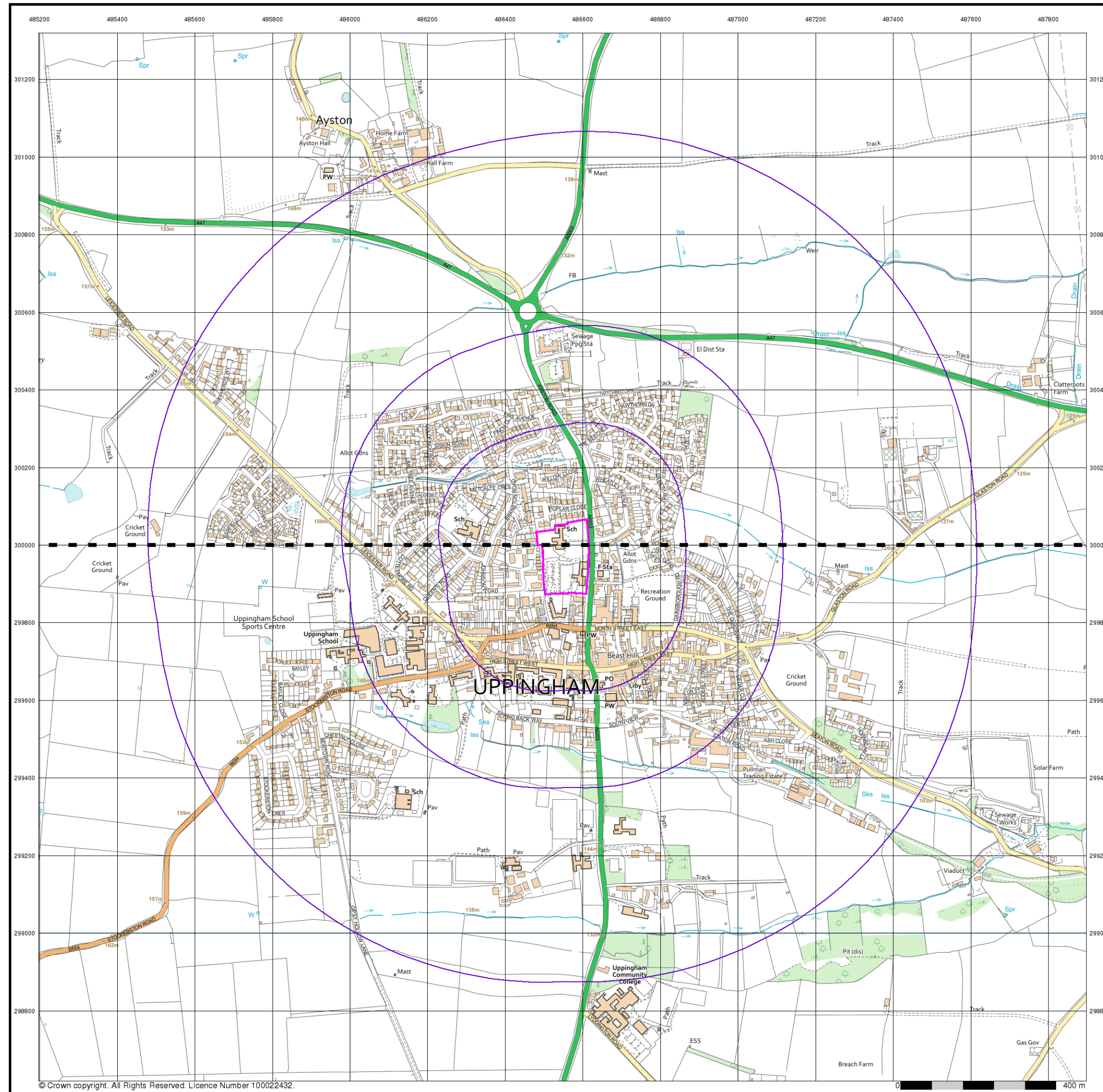
Order Number: 315456184_1_1
 Customer Ref: UK23.6614
 National Grid Reference: 486550, 299970
 Slice: A
 Site Area (Ha): 2.1
 Search Buffer (m): 1000

Site Details

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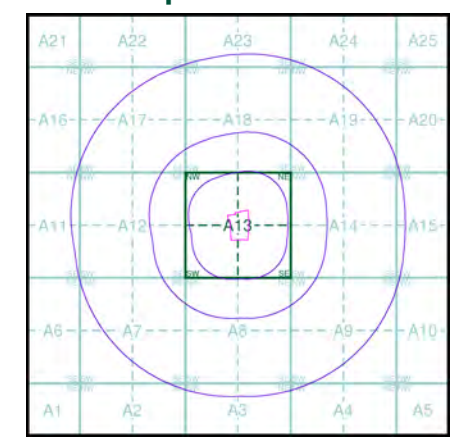
VectorMap Local
Published 2023
Source map scale - 1:10,000

VectorMap Local (Raster) is Ordnance Survey's highest detailed 'backdrop' mapping product. These maps are produced from OS's VectorMap Local, a simple vector dataset at a nominal scale of 1:10,000, covering the whole of Great Britain, that has been designed for creating graphical mapping. OS VectorMap Local is derived from large-scale information surveyed at 1:1250 scale (covering major towns and cities), 1:2500 scale (smaller towns, villages and developed rural areas), and 1:10 000 scale (mountain, moorland and river estuary areas).

Map Name(s) and Date(s)

- SK80SE | 2023 | Variable
- SP89NE | 2023 | Variable

Historical Map - Slice A



Order Details

Order Number: 315456184_1_1
 Customer Ref: UK23.6614
 National Grid Reference: 486550, 299970
 Slice: A
 Site Area (Ha): 2.1
 Search Buffer (m): 1000

Site Details

Uppingham School, Meadhurst, Uppingham, LE15 9RP



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 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk



APPENDIX F

Site Specific Borehole Logs & Trial Pit Logs



Borehole Log

Borehole No.

BH01

Sheet 1 of 1

Project Name: Uppingham School, Meadhurst

Project No.
UK23.6614

Co-ords: -80516E - 6907603N

Hole Type
CP

Location: 11 Ayston Rd, Uppingham, Oakham, LE15 9RL

Level:

Scale
1:100

Client: Uppingham Estates Department c/o Conisbee

Dates: 04/09/2023

Logged By
MC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	In Situ Results					
▼					0.35		Dark orangish brown, slightly gravelly, slightly silty SAND. Gravel is fine to coarse, sub-rounded to rounded ferruginous sandstone. (TOPSOIL)		
	1.20	SPT	N=18 (4,4/5,5,4,4)				Medium dense, dark orangish brown ferruginous sandstone GRAVEL. Gravel is very weathered, rounded sandstone in a dark orangish brown, sandy, silty clay matrix. (NORTHAMPTON SAND FORMATION)	1	
	2.00	SPT	N=18 (3,4/4,5,5,4)		2.20			2	
	3.00	SPT	N=19 (4,4/5,6,4,4)				Firm, dark orangish brown, slightly gravelly, sandy, silty CLAY. Gravel is dark orangish brown, very weathered, rounded ferruginous sandstone. (NORTHAMPTON SAND FORMATION)	3	
	4.00	D						4	
	4.00	SPT	N=10 (4,4/3,3,2,2) PSD FI: 38 PSD SA: 36 PSD GR: 26					5	
	5.00	SPT	N=13 (3,3/3,4,3,3)					6	
	6.50	SPT	N=44 (7,9/10,10,12,12)		6.40		Very stiff, mottled, dark greyish brown to dark grey CLAY. (WHITBY MUDSTONE)	7	
	8.00	D						8	
	8.00	SPT	N=52 (7,9/10,12,14,16) PI: 30 MC: 16.7					9	
	9.50	B						10	
	10.00	SPT	N=62 (7,8/12,14,16,20)					11	
	11.50	SPT	N=62 (8,11/13,13,15,21)					12	
	13.00	SPT	N=69 (8,10/14,15,18,22)					13	
	14.00	D						14	
14.50	B						15		
15.00	SPT	N=110 (12,14/16,20,24,50)					16		
16.50	SPT	N=120 (14,14/19,24,27,50)					17		
18.00	SPT	N=118 (14,14/18,24,26,50)					18		
19.50	SPT	N=102 (16,18/22,30,50,0)					19		
					20.00		End of Borehole at 20.000m	20	

Remarks

Groundwater Encountered at 3.8m & Refusal at 20m Into Dense Sand.





Trial Pit Log

Trialpit No

TP01

Sheet 1 of 1

Project Name: Uppingham School, Meadhurst

Project No.
UK23.6614Co-ords: -80577.40 - 6907563.54
Level:Date
01/09/2023

Location: 11 Ayston Rd, Uppingham, Oakham, LE15 9RL

Dimensions (m):
Depth 2.00
1.8
0.4Scale
1:10
Logged
MC

Client: Uppingham Estates Department c/o Conisbee

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth	Type	Results				
				0.40			Dark orangish brown, slightly gravelly, slightly silty SAND. Gravel is fine to coarse, sub-rounded to rounded ferruginous sandstone. (TOPSOIL)
				2.00			Dark orangish brown ferruginous sandstone GRAVEL. Gravel is very weathered, rounded sandstone in a dark orangish brown, sandy, silty clay matrix. (NORTHAMPTON SAND FORMATION)
							End of pit at 2.00 m

Remarks: No Groundwater Encountered & Reached Target Depth

Stability: Stable





Trial Pit Log

Trialpit No

TP02

Sheet 1 of 1

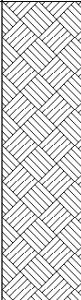
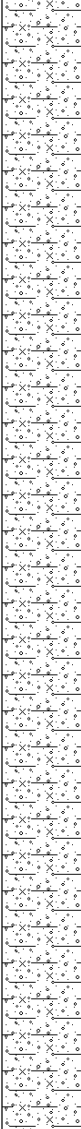
Project Name: Uppingham School, Meadhurst

Project No.
UK23.6614Co-ords: -80577.64 - 6907505.26
Level:Date
01/09/2023

Location: 11 Ayston Rd, Uppingham, Oakham, LE15 9RL

Dimensions (m):
Depth 1.90
2.4
0.4Scale
1:10
Logged
MC

Client: Uppingham Estates Department c/o Conisbee

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth	Type	Results				
				0.40			Dark orangish brown, slightly gravelly, slightly silty SAND. Gravel is fine to coarse, sub-rounded to rounded ferruginous sandstone. (TOPSOIL)
				1.90			Dark orangish brown ferruginous sandstone GRAVEL. Gravel is very weathered, rounded sandstone in a dark orangish brown, sandy, silty clay matrix. (NORTHAMPTON SAND FORMATION)
							End of pit at 1.90 m

Remarks: No Groundwater Encountered & Reached Target Depth

Stability: Stable





Trial Pit Log

Trialpit No

TP03

Sheet 1 of 1

Project Name: Uppingham School, Meadhurst

Project No.
UK23.6614Co-ords: -80514.58 - 6907606.30
Level:Date
01/09/2023

Location: 11 Ayston Rd, Uppingham, Oakham, LE15 9RL

Dimensions (m):

2.1

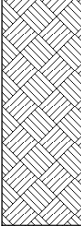
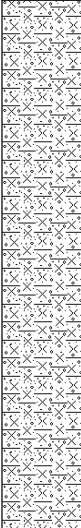
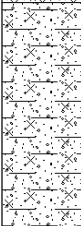
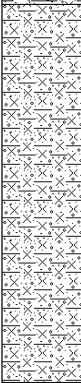
Scale
1:10

Client: Uppingham Estates Department c/o Conisbee

Depth
1.80

0.4

Logged
MC

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth	Type	Results				
				0.30			Dark orangish brown, slightly gravelly, slightly silty SAND. Gravel is fine to coarse, sub-rounded to rounded ferruginous sandstone. (TOPSOIL)
				1.00			Dark orangish brown, gravelly, sandy, clayey SILT. Gravel is very weathered, rounded ferruginous sandstone. (NORTHAMPTON SAND FORMATION)
				1.30			Dark orangish brown, gravelly, silty, clayey SAND. Gravel is very weathered, rounded ferruginous sandstone. (NORTHAMPTON SAND FORMATION)
				1.80			Dark orangish brown, gravelly, sandy, clayey SILT. Gravel is very weathered, rounded ferruginous sandstone. (NORTHAMPTON SAND FORMATION)
							End of pit at 1.80 m

Remarks: No Groundwater Encountered & Reached Target Depth

Stability: Stable





Borehole Log

Borehole No.

WS01

Sheet 1 of 1

Project Name: Uppingham School, Meadhurst

Project No.
UK23.6614

Co-ords: -80577E - 6907596N

Hole Type
WLS

Location: 11 Ayston Rd, Uppingham, Oakham, LE15 9RL

Level:

Scale
1:27

Client: Uppingham Estates Department c/o Conisbee

Dates: 31/08/2023

Logged By
MC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	In Situ Results				
					0.40		Dark orangish brown, slightly gravelly, slightly silty SAND. Gravel is fine to coarse, sub-rounded to rounded ferruginous sandstone. (TOPSOIL)	
		1.00	SPT	N=13 (3,3/3,4,3,3)			Loose to medium dense, dark orangish brown ferruginous sandstone GRAVEL. Gravel is very weathered, rounded sandstone in a dark orangish brown, sandy, silty clay matrix. (NORTHAMPTON SAND FORMATION)	
		2.00	SPT	N=15 (4,2/3,4,4,4)				
		3.00	SPT	N=25 (5,5/5,8,6,6)			<i>Becomes increasingly less dense and more saturated.</i>	
		3.80 - 4.00	D	PSD FI: 29 PSD SA: 31 PSD GR: 40				
		4.00	SPT	N=11 (2,2/3,3,2,3)				
		5.00	SPT	N=6 (2,3/2,1,1,2)	5.00		End of Borehole at 5.000m	

Remarks

Groundwater Encountered at 4.04m, Rising to 2.85m in 24 Hours & Reached Target Depth at 5m.





Borehole Log

Borehole No.

WS02

Sheet 1 of 1

Project Name: Uppingham School, Meadhurst

Project No.
UK23.6614

Co-ords: -80578E - 6907578N

Hole Type
WLS

Location: 11 Ayston Rd, Uppingham, Oakham, LE15 9RL

Level:

Scale
1:27

Client: Uppingham Estates Department c/o Conisbee

Dates: 31/08/2023

Logged By
MC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	In Situ Results				
					0.40		Dark orangish brown, slightly gravelly, slightly silty SAND. Gravel is fine to coarse, sub-rounded to rounded ferruginous sandstone. (TOPSOIL)	
		0.80 - 1.00	D					
		1.00	SPT	PSD FI: 17 PSD SA: 22 PSD GR: 61 N=15 (6,6/4,4,3,4)				Medium dense, dark orangish brown ferruginous sandstone GRAVEL. Gravel is very weathered, rounded sandstone in a dark orangish brown, sandy, silty clay matrix. (NORTHAMPTON SAND FORMATION)
		2.00	SPT	N=18 (4,3/4,4,5,5)				
		3.00	SPT	N=20 (4,5/4,5,6,5)				<i>Becomes more saturated and clayey with depth.</i>
		3.40						Medium dense, dark orangish brown, gravelly, sandy, clayey SILT. Gravel is very weathered, rounded ferruginous sandstone. (NORTHAMPTON SAND FORMATION) <i>Becomes heavily saturated with dark red sandstone cobbles.</i>
	4.00	SPT	N=13 (3,3/3,4,3,3)					
	4.50						Very dense, dark orangish brown, gravelly, silty, clayey SAND. Gravel is very weathered, rounded ferruginous sandstone. (NORTHAMPTON SAND FORMATION)	
	5.00	SPT	N=109 (17,9/9,24,26,50)		5.00		End of Borehole at 5.000m	

Remarks

Groundwater Encountered at 3.91m, Rising to 2.56m in 24 Hours & Reached Target Depth at 5m.





Borehole Log

Borehole No.

WS03

Sheet 1 of 1

Project Name: Uppingham School, Meadhurst

Project No.
UK23.6614

Co-ords: -80526E - 6907588N

Hole Type
WLS

Location: 11 Ayston Rd, Uppingham, Oakham, LE15 9RL

Level:

Scale
1:27

Client: Uppingham Estates Department c/o Conisbee

Dates: 31/08/2023

Logged By
MC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	In Situ Results				
					0.40		Dark orangish brown, slightly gravelly, slightly silty SAND. Gravel is fine to coarse, sub-rounded to rounded, ferruginous sandstone. (TOPSOIL)	
		1.00	SPT	N=23 (5,4/6,6,6,5)			Medium dense, dark orangish brown ferruginous sandstone GRAVEL. Gravel is very weathered, rounded sandstone in a dark orangish brown, sandy, silty clay matrix. (NORTHAMPTON SAND FORMATION)	
		1.80 - 2.00	D	PSD FI: 29 PSD SA: 17 PSD GR: 54				
		2.00 - 3.00 2.00	B SPT	N=17 (3,3/4,4,5,4)	2.10		Firm, dark orangish brown, slightly gravelly, sandy, silty CLAY. Gravel is dark orangish brown, very weathered, rounded ferruginous sandstone. (NORTHAMPTON SAND FORMATION)	
		3.00	SPT	N=18 (4,4/5,4,5,4)	3.00		Medium dense, slightly saturated, dark orangish brown ferruginous sandstone GRAVEL. Gravel is very weathered, rounded sandstone in a dark orangish brown, sandy, silty clay matrix. (NORTHAMPTON SAND FORMATION)	
		4.00	SPT	N=16 (5,4/4,4,4,4)				
	5.00	SPT	N=17 (4,4/4,5,4,4)	5.00			End of Borehole at 5.000m	

Remarks

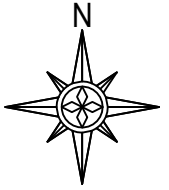
Groundwater Encountered at 3.27m, Rising to 2.65m in 24 Hours & Reached Target Depth at 5m.



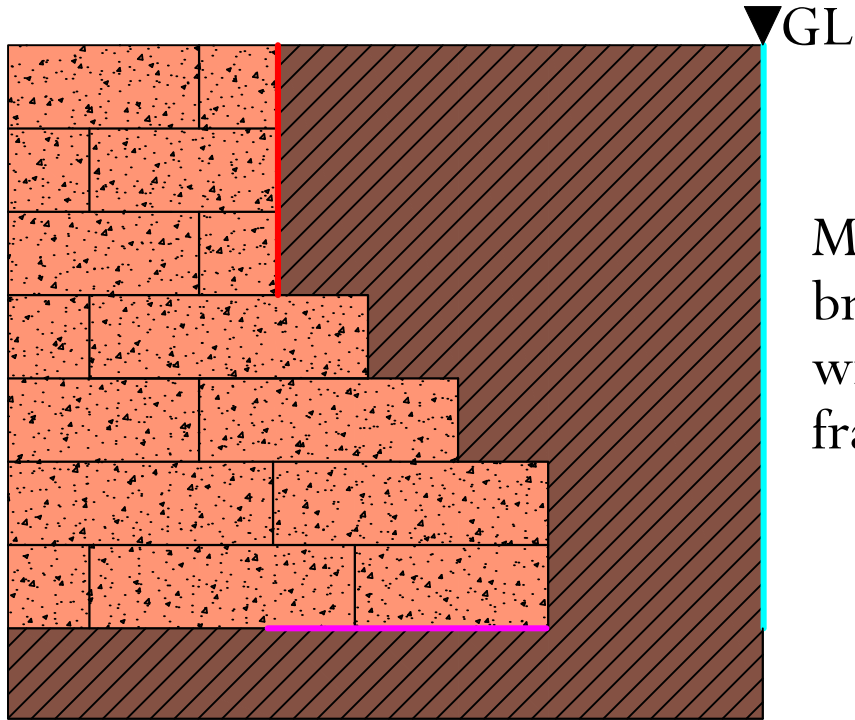


APPENDIX G

Foundation Exposure Logs



Brick
Wall



MADE GROUND: Yellowish brown, sandy, gravelly SILT with bricks and concrete fragments.

MEASUREMENT KEY:

- 0.24m
- 0.17m
- 0.54m

Rev	Date	Drawn	Description	Chk'd



The Geotechnical and Environmental Engineers
www.epstrategies.co.uk

Site
Uppingham School, Meadhurst
11 Ayston Road, Uppingham, Oakham, LE15 9RL

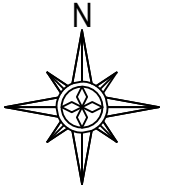
Client
Uppingham Estates Department c/o Conisbee

Title
FP01 - Foundation Exposure 1

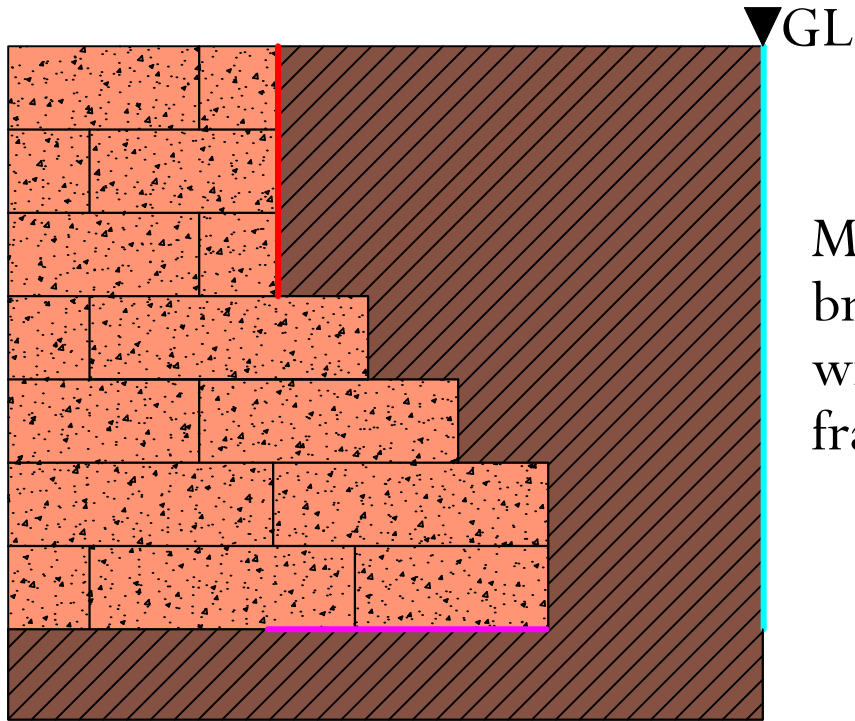
Surveyed: _____ Drawn by: MC
Checked by: TA Date: October 2023

Scale (A4 Sheet) Drawing Reference
Not to Scale UK23.6614_06

Job No. UK23.6614 Rev 01



Brick Wall



MADE GROUND: Yellowish brown, sandy, gravelly SILT with bricks and concrete fragments.

MEASUREMENT KEY:

- 0.42m
- 0.17m
- 0.77m

Rev	Date	Drawn	Description	Chk'd



The Geotechnical and Environmental Engineers
www.epstrategies.co.uk

Site
Uppingham School, Meadhurst
11 Ayston Road, Uppingham, Oakham, LE15 9RL

Client
Uppingham Estates Department c/o Conisbee

Title
FP02 - Foundation Exposure 2

Surveyed: Drawn by: MC
Checked by: TA Date: October 2023

Scale: [A4 Sheet] Not to Scale Drawing Reference: UK23.6614_07

Job No: UK23.6614 Rev: 01



APPENDIX H

Laboratory Results – Environmental

EPS Ltd
7B Caxton House
Broad Street
Cambourne
Cambridgeshire
United Kingdom
CB23 6JN



4225



Attention : Matthew Cook
Date : 19th September, 2023
Your reference : UK23.6614
Our reference : Test Report 23/14875 Batch 1 23/14735 Batch 1
Location : Meadhurst, Uppingham
Date samples received : 6th & 8th September, 2023
Status : Final report
Issue : 1

Six samples were received for analysis on 6th & 8th September, 2023 which were scheduled for analysis. Please find attached our Test Report which should be read with notes at the end of the report and should include all sections if reproduced. Interpretations and opinions are outside the scope of any accreditation, and all results relate only to samples supplied.

All analysis is carried out on as received samples and reported on a dry weight basis unless stated otherwise. Results are not surrogate corrected.

The greenhouse gas emissions generated (in Carbon – Co2e) to obtain the results in this report are estimated as:

Scope 1&2 emissions - 24.471 kg of CO2

Scope 1&2&3 emissions - 57.832 kg of CO2

Authorised By:



Phil Sommerton BSc

Senior Project Manager

Please include all sections of this report if it is reproduced

Element Materials Technology

Client Name: EPS Ltd
Reference: UK23.6614
Location: Meadhurst, Uppingham
Contact: Matthew Cook

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Job No.	23/14735	23/14735	23/14735	23/14735	23/14875	23/14875																																	
EMT Sample No.	1-4	5-8	9-12	13-16	1	2																																	
Sample ID	WS01 ES1	WS02 ES1	WS03 ES1	WS03 ES2	BH1 D6	BH1 D13																																	
Depth	0.00-0.40	0.00-0.40	0.00-0.40	1.60-2.00	6.5	13.00																																	
COC No / misc																																							
Containers	V J T	V J T	V J T	V J T	B	B																																	
Sample Date	01/09/2023	01/09/2023	01/09/2023	01/09/2023	04/09/2023	04/09/2023																																	
Sample Type	Clay	Clay	Clay	Clay	Clay	Clay																																	
Batch Number	1	1	1	1	1	1																																	
Date of Receipt	06/09/2023	06/09/2023	06/09/2023	06/09/2023	08/09/2023	08/09/2023																																	
Arsenic ^{#M}	110.7	125.9	102.5	60.0	117.7	-																																	
Cadmium ^{#M}	<0.1	<0.1	<0.1	<0.1	<0.1	-																																	
Chromium ^{#M}	144.4	153.8	133.3	335.0 ^{AA}	51.1	-																																	
Copper ^{#M}	31	54	266 ^{AA}	<1	19	-																																	
Lead ^{#M}	199	222	815	60	19	-																																	
Mercury ^{#M}	0.6	0.9	1.2	0.4	0.2	-																																	
Nickel ^{#M}	61.8	68.6	66.6	119.7	39.1	-																																	
Selenium ^{#M}	<1	1	<1	<1	<1	-																																	
Sulphur as S	-	-	-	-	2.45	2.65																																	
Total Sulphate as SO4 ^{#M}	775	559	706	-	4203	3036																																	
Zinc ^{#M}	262	296	479	617	64	-																																	
PAH MS																																							
Naphthalene ^{#M}	<0.04	<0.04	0.60	<0.04	<0.04	-																																	
Acenaphthylene	<0.03	<0.03	0.13	<0.03	<0.03	-																																	
Acenaphthene ^{#M}	<0.05	<0.05	2.40	<0.05	<0.05	-																																	
Fluorene ^{#M}	<0.04	<0.04	2.26	<0.04	<0.04	-																																	
Phenanthrene ^{#M}	0.10	0.07	12.72	<0.03	<0.03	-																																	
Anthracene [#]	<0.04	<0.04	4.18	<0.04	<0.04	-																																	
Fluoranthene ^{#M}	0.18	0.11	10.24	<0.03	<0.03	-																																	
Pyrene [#]	0.17	0.10	7.78	<0.03	0.03	-																																	
Benzo(a)anthracene [#]	0.14	0.08	4.48	<0.06	<0.06	-																																	
Chrysene ^{#M}	0.14	0.08	4.44	<0.02	<0.02	-																																	
Benzo(k)fluoranthene ^{#M}	0.20	0.12	5.50	<0.07	<0.07	-																																	
Benzo(a)pyrene [#]	<0.04	<0.04	3.23	<0.04	<0.04	-																																	
Indeno(123cd)pyrene ^{#M}	0.05	<0.04	1.36	<0.04	<0.04	-																																	
Dibenzo(ah)anthracene [#]	<0.04	<0.04	0.29	<0.04	<0.04	-																																	
Benzo(ghi)perylene [#]	0.06	<0.04	1.12	<0.04	<0.04	-																																	
Coronene	<0.04	-	-	<0.04	<0.04	-																																	
PAH 16 Total	1.0	<0.6	60.7	<0.6	<0.6	-																																	
PAH 17 Total	1.04	-	-	<0.64	<0.64	-																																	
Benzo(b)fluoranthene	0.14	0.09	3.96	<0.05	<0.05	-																																	
Benzo(k)fluoranthene	0.06	0.03	1.54	<0.02	<0.02	-																																	
PAH Surrogate % Recovery	97	100	100	99	96	-																																	
Mineral Oil (C10-C40) (EH_CU_1D_AL)	<30	-	-	<30	<30	-																																	

Please see attached notes for all abbreviations and acronyms

Element Materials Technology

Client Name: EPS Ltd
Reference: UK23.6614
Location: Meadhurst, Uppingham
Contact: Matthew Cook

Report : Solid
Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Job No.	23/14735						23/14735		23/14735		23/14735		LOD/LOR	Units	Method No.
	EMT Sample No.	23/14735	23/14735	23/14735	23/14735	23/14875	23/14875								
Sample ID	WS01 ES1	WS02 ES1	WS03 ES1	WS03 ES2	BH1 D6	BH1 D13									
Depth	0.00-0.40	0.00-0.40	0.00-0.40	1.60-2.00	6.5	13.00									
COC No / misc															
Containers	V J T	V J T	V J T	V J T	B	B									
Sample Date	01/09/2023	01/09/2023	01/09/2023	01/09/2023	04/09/2023	04/09/2023									
Sample Type	Clay	Clay	Clay	Clay	Clay	Clay									
Batch Number	1	1	1	1	1	1									
Date of Receipt	06/09/2023	06/09/2023	06/09/2023	06/09/2023	08/09/2023	08/09/2023									
TPH CWG															
Aliphatics															
>C5-C6 (HS_1D_AL) ^{#M}	<0.1	-	-	<0.1	<0.1 ^{SV}	-						<0.1	mg/kg	TM36/PM12	
>C6-C8 (HS_1D_AL) ^{#M}	<0.1	-	-	<0.1	<0.1 ^{SV}	-						<0.1	mg/kg	TM36/PM12	
>C8-C10 (HS_1D_AL)	<0.1	-	-	<0.1	<0.1 ^{SV}	-						<0.1	mg/kg	TM36/PM12	
>C10-C12 (EH_CU_1D_AL) ^{#M}	<0.2	-	-	<0.2	<0.2	-						<0.2	mg/kg	TM5/PM8/PM16	
>C12-C16 (EH_CU_1D_AL) ^{#M}	<4	-	-	<4	<4	-						<4	mg/kg	TM5/PM8/PM16	
>C16-C21 (EH_CU_1D_AL) ^{#M}	<7	-	-	<7	<7	-						<7	mg/kg	TM5/PM8/PM16	
>C21-C35 (EH_CU_1D_AL) ^{#M}	<7	-	-	<7	<7	-						<7	mg/kg	TM5/PM8/PM16	
>C35-C40 (EH_CU_1D_AL)	<7	-	-	<7	<7	-						<7	mg/kg	TM5/PM8/PM16	
Total aliphatics C5-40 (EH+HS_CU_1D_AL)	<26	-	-	<26	<26	-						<26	mg/kg	TM5/PM8/PM16/PM12/PM15	
Aromatics															
>C5-EC7 (HS_1D_AR) [#]	<0.1	-	-	<0.1	<0.1 ^{SV}	-						<0.1	mg/kg	TM36/PM12	
>EC7-EC8 (HS_1D_AR) [#]	<0.1	-	-	<0.1	<0.1 ^{SV}	-						<0.1	mg/kg	TM36/PM12	
>EC8-EC10 (HS_1D_AR) ^{#M}	<0.1	-	-	<0.1	<0.1 ^{SV}	-						<0.1	mg/kg	TM36/PM12	
>EC10-EC12 (EH_CU_1D_AR) [#]	<0.2	-	-	<0.2	<0.2	-						<0.2	mg/kg	TM5/PM8/PM16	
>EC12-EC16 (EH_CU_1D_AR) [#]	<4	-	-	<4	<4	-						<4	mg/kg	TM5/PM8/PM16	
>EC16-EC21 (EH_CU_1D_AR) [#]	<7	-	-	<7	<7	-						<7	mg/kg	TM5/PM8/PM16	
>EC21-EC35 (EH_CU_1D_AR) [#]	<7	-	-	<7	<7	-						<7	mg/kg	TM5/PM8/PM16	
>EC35-EC40 (EH_CU_1D_AR)	<7	-	-	<7	<7	-						<7	mg/kg	TM5/PM8/PM16	
Total aromatics C5-40 (EH+HS_CU_1D_AR)	<26	-	-	<26	<26	-						<26	mg/kg	TM5/PM8/PM16/PM12/PM15	
Total aliphatics and aromatics(C5-40) (EH+HS_CU_1D_Total)	<52	-	-	<52	<52	-						<52	mg/kg	TM5/PM8/PM16/PM12/PM15	
MTBE [#]															
MTBE [#]	<5	-	-	<5	<5 ^{SV}	-						<5	ug/kg	TM36/PM12	
Benzene [#]															
Benzene [#]	<5	-	-	<5	<5 ^{SV}	-						<5	ug/kg	TM36/PM12	
Toluene [#]															
Toluene [#]	<5	-	-	<5	6 ^{SV}	-						<5	ug/kg	TM36/PM12	
Ethylbenzene [#]															
Ethylbenzene [#]	<5	-	-	<5	<5 ^{SV}	-						<5	ug/kg	TM36/PM12	
m/p-Xylene [#]															
m/p-Xylene [#]	<5	-	-	<5	<5 ^{SV}	-						<5	ug/kg	TM36/PM12	
o-Xylene [#]															
o-Xylene [#]	<5	-	-	<5	<5 ^{SV}	-						<5	ug/kg	TM36/PM12	
PCB 28 [#]															
PCB 28 [#]	<5	-	-	<5	<5	-						<5	ug/kg	TM17/PM8	
PCB 52 [#]															
PCB 52 [#]	<5	-	-	<5	<5	-						<5	ug/kg	TM17/PM8	
PCB 101 [#]															
PCB 101 [#]	<5	-	-	<5	<5	-						<5	ug/kg	TM17/PM8	
PCB 118 [#]															
PCB 118 [#]	<5	-	-	<5	<5	-						<5	ug/kg	TM17/PM8	
PCB 138 [#]															
PCB 138 [#]	<5	-	-	<5	<5	-						<5	ug/kg	TM17/PM8	
PCB 153 [#]															
PCB 153 [#]	<5	-	-	<5	<5	-						<5	ug/kg	TM17/PM8	
PCB 180 [#]															
PCB 180 [#]	<5	-	-	<5	<5	-						<5	ug/kg	TM17/PM8	
Total 7 PCBs [#]															
Total 7 PCBs [#]	<35	-	-	<35	<35	-						<35	ug/kg	TM17/PM8	
Total Phenols HPLC															
Total Phenols HPLC	<0.15	<0.15	<0.15	-	-	-						<0.15	mg/kg	TM26/PM21B	
Natural Moisture Content															
Natural Moisture Content	15.4	13.0	15.2	22.4	14.6	-						<0.1	%	PM4/PM0	
Hexavalent Chromium [#]															
Hexavalent Chromium [#]	<0.3	<0.3	<0.3	<0.3	<0.3	-						<0.3	mg/kg	TM38/PM20	

Please see attached notes for all abbreviations and acronyms

Element Materials Technology

Client Name: EPS Ltd
Reference: UK23.6614
Location: Meadhurst, Uppingham
Contact: Matthew Cook

Report: Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Job No.	23/14735	23/14735	23/14735	23/14735	23/14875	23/14875						
EMT Sample No.	1-4	5-8	9-12	13-16	1	2						
Sample ID	WS01 ES1	WS02 ES1	WS03 ES1	WS03 ES2	BH1 D6	BH1 D13						
Depth	0.00-0.40	0.00-0.40	0.00-0.40	1.60-2.00	6.5	13.00						
COC No / misc												
Containers	V J T	V J T	V J T	V J T	B	B						
Sample Date	01/09/2023	01/09/2023	01/09/2023	01/09/2023	04/09/2023	04/09/2023						
Sample Type	Clay	Clay	Clay	Clay	Clay	Clay						
Batch Number	1	1	1	1	1	1						
Date of Receipt	06/09/2023	06/09/2023	06/09/2023	06/09/2023	08/09/2023	08/09/2023						
							LOD/LOR	Units	Method No.			
Sulphate as SO4 (2:1 Ext) ^{#M}	<0.0015	<0.0015	0.0071	-	0.7172	0.2651	<0.0015	g/l	TM38/PM20			
Chromium III	144.4	153.8	133.3	335.0	51.1	-	<0.5	mg/kg	NONE/NONE			
Total Cyanide ^{#M}	<0.5	<0.5	<0.5	-	-	-	<0.5	mg/kg	TM89/PM45			
Total Organic Carbon [#]	3.21	-	-	0.17	1.56	-	<0.02	%	TM21/PM24			
Organic Matter	5.5	5.9	17.0	-	-	-	<0.2	%	TM21/PM24			
Loss on Ignition [#]	15.6	-	-	14.2	4.8	-	<1.0	%	TM22/PM0			
pH ^{#M}	7.73	7.77	7.58	7.37	7.58	7.91	<0.01	pH units	TM73/PM11			
Sample Type	Clay	Clay	Clay	Clay	Clay	Clay		None	PM13/PM0			
Sample Colour	Dark Brown	Medium Brown	Medium Brown	Medium Brown	Medium Brown	Medium Brown		None	PM13/PM0			
Other Items	roots, vegetation	stones, roots	stones, roots	stones	stones	stones		None	PM13/PM0			

Please see attached notes for all abbreviations and acronyms

Element Materials Technology

Client Name: EPS Ltd
Reference: UK23.6614
Location: Meadhurst, Uppingham
Contact: Matthew Cook

Report : CEN 10:1 1 Batch

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Job No.	23/14735	23/14735	23/14875											
EMT Sample No.	1-4	13-16	1											
Sample ID	WS01 ES1	WS03 ES2	BH1 D6											
Depth	0.00-0.40	1.60-2.00	6.5											
COC No / misc														
Containers	V J T	V J T	B											
Sample Date	01/09/2023	01/09/2023	04/09/2023											
Sample Type	Clay	Clay	Clay											
Batch Number	1	1	1											
Date of Receipt	06/09/2023	06/09/2023	08/09/2023											
												LOD/LOR	Units	Method No.
Mass of raw test portion	0.1099	0.1167	0.1038										kg	NONE/PM17
Mass of dried test portion	0.09	0.09	0.09										kg	NONE/PM17

Please see attached notes for all abbreviations and acronyms

Element Materials Technology

Client Name: EPS Ltd
Reference: UK23.6614
Location: Meadhurst, Uppingham
Contact: Matthew Cook

Report : CEN 10:1 1 Batch (Duplicate results)

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Job No.	23/14735											Please see attached notes for all abbreviations and acronyms	
EMT Sample No.	13-16												
Sample ID	WS03 ES2												
Depth	1.60-2.00												
COC No / misc													
Containers	V J T												
Sample Date	01/09/2023												
Sample Type	Clay												
Batch Number	1												
Date of Receipt	06/09/2023												
Mass of raw test portion	0.116										LOD/LOR	Units	Method No.
Mass of dried test portion	0.09										kg	kg	NONE/PM17

Mass of sample taken (kg)	0.1038	Moisture Content Ratio (%) =	15.0		
Mass of dry sample (kg) =	0.09	Dry Matter Content Ratio (%) =	87.0		
Particle Size <4mm =	>95%				
EMT Job No	23/14875		Landfill Waste Acceptance Criteria Limits		
Sample No	1		Inert Waste Landfill	Stable Non-reactive Hazardous Waste in Non-Hazardous Landfill	Hazardous Waste Landfill
Client Sample No	BH1 D6				
Depth/Other	6.5				
Sample Date	04/09/2023				
Batch No	1				
Solid Waste Analysis					
Total Organic Carbon (%)	1.56		3	5	6
Loss on Ignition (%)	4.8		-	-	10
Sum of BTEX (mg/kg)	<0.025		6	-	-
Sum of 7 PCBs (mg/kg)	<0.035		1	-	-
Mineral Oil (mg/kg) (EH_CU_1D_AL)	<30		500	-	-
PAH Sum of 17(mg/kg)	<0.64		100	-	-
pH (pH Units)	7.58		-	>6	-
ANC to pH 7 (mol/kg)	-		-	to be evaluated	to be evaluated
ANC to pH 4 (mol/kg)	-		-	to be evaluated	to be evaluated
Eluate Analysis	10:1 concⁿ leached		Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg		
	C₁₀	A₁₀	mg/kg		
	mg/l	mg/kg			
Arsenic	0.0033	0.033	0.5	2	25
Barium	0.005	0.05	20	100	300
Cadmium	<0.0005	<0.005	0.04	1	5
Chromium	<0.0015	<0.015	0.5	10	70
Copper	<0.007	<0.07	2	50	100
Mercury	<0.001	<0.01	0.01	0.2	2
Molybdenum	0.018	0.18	0.5	10	30
Nickel	0.025	0.25	0.4	10	40
Lead	<0.005	<0.05	0.5	10	50
Antimony	<0.002	<0.02	0.06	0.7	5
Selenium	<0.003	<0.03	0.1	0.5	7
Zinc	<0.003	<0.03	4	50	200
Chloride	24.4	244	800	15000	25000
Fluoride	<0.3	<3	10	150	500
Sulphate as SO4	154.1	1542	1000	20000	50000
Total Dissolved Solids	372	3722	4000	60000	100000
Phenol	<0.01	<0.1	1	-	-
Dissolved Organic Carbon	<2	<20	500	800	1000

Mass of sample taken (kg)	-	Moisture Content Ratio (%) =	22.0		
Mass of dry sample (kg) =	0.09	Dry Matter Content Ratio (%) =	82.0		
Particle Size <4mm =	>95%				
EMT Job No	23/14735		Landfill Waste Acceptance Criteria Limits		
Sample No	4		Inert Waste Landfill	Stable Non-reactive Hazardous Waste in Non-Hazardous Landfill	Hazardous Waste Landfill
Client Sample No	WS01 ES1				
Depth/Other	0.00-0.40				
Sample Date	01/09/2023				
Batch No	1				
Solid Waste Analysis					
Total Organic Carbon (%)	3.21		3	5	6
Loss on Ignition (%)	15.6		-	-	10
Sum of BTEX (mg/kg)	<0.025		6	-	-
Sum of 7 PCBs (mg/kg)	<0.035		1	-	-
Mineral Oil (mg/kg) (EH_CU_1D_AL)	<30		500	-	-
PAH Sum of 17(mg/kg)	1.04		100	-	-
pH (pH Units)	7.73		-	>6	-
ANC to pH 7 (mol/kg)	-		-	to be evaluated	to be evaluated
ANC to pH 4 (mol/kg)	-		-	to be evaluated	to be evaluated
Eluate Analysis	10:1 concⁿ leached		Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg		
	C₁₀	A₁₀	mg/kg		
	mg/l	mg/kg			
Arsenic	0.0046	0.046	0.5	2	25
Barium	0.006	0.06	20	100	300
Cadmium	<0.0005	<0.005	0.04	1	5
Chromium	<0.0015	<0.015	0.5	10	70
Copper	<0.007	<0.07	2	50	100
Mercury	<0.001	<0.01	0.01	0.2	2
Molybdenum	<0.002	<0.02	0.5	10	30
Nickel	<0.002	<0.02	0.4	10	40
Lead	<0.005	<0.05	0.5	10	50
Antimony	<0.002	<0.02	0.06	0.7	5
Selenium	<0.003	<0.03	0.1	0.5	7
Zinc	0.003	<0.03	4	50	200
Chloride	<0.3	<3	800	15000	25000
Fluoride	<0.3	<3	10	150	500
Sulphate as SO4	<0.5	<5	1000	20000	50000
Total Dissolved Solids	88	880	4000	60000	100000
Phenol	<0.01	<0.1	1	-	-
Dissolved Organic Carbon	6	60	500	800	1000

Mass of sample taken (kg)	-	Moisture Content Ratio (%) =	29.3		
Mass of dry sample (kg) =	0.09	Dry Matter Content Ratio (%) =	77.3		
Particle Size <4mm =	>95%				
EMT Job No	23/14735		Landfill Waste Acceptance Criteria Limits		
Sample No	16		Inert Waste Landfill	Stable Non-reactive Hazardous Waste in Non-Hazardous Landfill	Hazardous Waste Landfill
Client Sample No	WS03 ES2				
Depth/Other	1.60-2.00				
Sample Date	01/09/2023				
Batch No	1				
Solid Waste Analysis					
Total Organic Carbon (%)	0.17		3	5	6
Loss on Ignition (%)	14.2		-	-	10
Sum of BTEX (mg/kg)	<0.025		6	-	-
Sum of 7 PCBs (mg/kg)	<0.035		1	-	-
Mineral Oil (mg/kg) (EH_CU_1D_AL)	<30		500	-	-
PAH Sum of 17(mg/kg)	<0.64		100	-	-
pH (pH Units)	7.37		-	>6	-
ANC to pH 7 (mol/kg)	-		-	to be evaluated	to be evaluated
ANC to pH 4 (mol/kg)	-		-	to be evaluated	to be evaluated
Eluate Analysis	10:1 concⁿ leached		Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg		
	C₁₀	A₁₀	mg/kg		
	mg/l	mg/kg			
Arsenic	<0.0025	<0.025	0.5	2	25
Barium	<0.003	<0.03	20	100	300
Cadmium	<0.0005	<0.005	0.04	1	5
Chromium	0.0019	0.019	0.5	10	70
Copper	<0.007	<0.07	2	50	100
Mercury	<0.001	<0.01	0.01	0.2	2
Molybdenum	<0.002	<0.02	0.5	10	30
Nickel	<0.002	<0.02	0.4	10	40
Lead	<0.005	<0.05	0.5	10	50
Antimony	<0.002	<0.02	0.06	0.7	5
Selenium	<0.003	<0.03	0.1	0.5	7
Zinc	0.004	0.04	4	50	200
Chloride	<0.3	<3	800	15000	25000
Fluoride	0.8	8	10	150	500
Sulphate as SO4	0.5	5	1000	20000	50000
Total Dissolved Solids	<35	<350	4000	60000	100000
Phenol	<0.01	<0.1	1	-	-
Dissolved Organic Carbon	4	40	500	800	1000

Client Name: EPS Ltd
Reference: UK23.6614
Location: Meadhurst, Uppingham
Contact: Matthew Cook

Matrix : Solid

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	EPH Interpretation
23/14735	1	WS01 ES1	0.00-0.40	1-4	No interpretation possible
23/14735	1	WS03 ES2	1.60-2.00	13-16	No interpretation possible
23/14875	1	BH1 D6	6.5	1	No interpretation possible

Client Name: EPS Ltd
Reference: UK23.6614
Location: Meadhurst, Uppingham
Contact: Matthew Cook

Note:
 Asbestos Screen analysis is carried out in accordance with our documented in-house methods PM042 and TM065 and HSG 248 by Stereo and Polarised Light Microscopy using Dispersion Staining Techniques and is covered by our UKAS accreditation. Detailed Gravimetric Quantification and PCOM Fibre Analysis is carried out in accordance with our documented in-house methods PM042 and TM131 and HSG 248 using Stereo and Polarised Light Microscopy and Phase Contrast Optical Microscopy (PCOM). Asbestos sub-samples are retained for not less than 6 months from the date of analysis unless specifically requested.

The LOQ of the Asbestos Quantification is 0.001% dry fibre of dry mass of sample.

Where the sample is not taken by a Element Materials Technology consultant, Element Materials Technology cannot be responsible for inaccurate or unrepresentative sampling.

Where trace asbestos is reported the amount of asbestos will be <0.1%.

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analyst Name	Date Of Analysis	Analysis	Result
23/14735	1	WS01 ES1	0.00-0.40	3	Anthony Carman	14/09/2023	General Description (Bulk Analysis)	Brown Soil/Stones
					Anthony Carman	14/09/2023	Asbestos Fibres	NAD
					Anthony Carman	14/09/2023	Asbestos ACM	NAD
					Anthony Carman	14/09/2023	Asbestos Type	NAD
23/14735	1	WS02 ES1	0.00-0.40	7	Catherine Coles	14/09/2023	General Description (Bulk Analysis)	brown soil,stone,roots
					Catherine Coles	14/09/2023	Asbestos Fibres	NAD
					Catherine Coles	14/09/2023	Asbestos ACM	NAD
					Catherine Coles	14/09/2023	Asbestos Type	NAD
23/14735	1	WS03 ES1	0.00-0.40	11	Catherine Coles	14/09/2023	General Description (Bulk Analysis)	brown soil,roots
					Catherine Coles	14/09/2023	Asbestos Fibres	NAD
					Catherine Coles	14/09/2023	Asbestos ACM	NAD
					Catherine Coles	14/09/2023	Asbestos Type	NAD
23/14735	1	WS03 ES2	1.60-2.00	15	Anthony Carman	14/09/2023	General Description (Bulk Analysis)	Brown Soil/Stones
					Anthony Carman	14/09/2023	Asbestos Fibres	NAD
					Anthony Carman	14/09/2023	Asbestos ACM	NAD
					Anthony Carman	14/09/2023	Asbestos Type	NAD
23/14875	1	BH1 D6	6.5	1	Anthony Carman	15/09/2023	General Description (Bulk Analysis)	Grey Soil/Stones
					Anthony Carman	15/09/2023	Asbestos Fibres	NAD
					Anthony Carman	15/09/2023	Asbestos ACM	NAD
					Anthony Carman	15/09/2023	Asbestos Type	NAD

Client Name: EPS Ltd
Reference: UK23.6614
Location: Meadhurst, Uppingham
Contact: Matthew Cook

Matrix : Solid

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analysis	Reason
23/14875	1	BH1 D6	6.5	1	EPH	Sample received in inappropriate container

Please note that only samples that are deviating are mentioned in this report. If no samples are listed it is because none were deviating. Only analyses which are accredited are recorded as deviating if set criteria are not met.

It is a requirement under ISO 17025 that we inform clients if samples are deviating i.e. outside what is expected. A deviating sample indicates that the sample 'may' be compromised but not necessarily will be compromised. The result is still accredited and our analytical reports will still show accreditation on the relevant analytes.

NOTES TO ACCOMPANY ALL SCHEDULES AND REPORTS

EMT Job No.: 23/14875 23/14735

SOILS and ASH

Please note we are only MCERTS accredited (UK soils only) for sand, loam and clay and any other matrix is outside our scope of accreditation.

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation has been performed on clay, sand and loam, only samples that are predominantly these matrices, or combinations of them will be within our MCERTS scope. If samples are not one of a combination of the above matrices they will not be marked as MCERTS accredited.

It is assumed that you have taken representative samples on site and require analysis on a representative subsample. Stones will generally be included unless we are requested to remove them.

All samples will be discarded one month after the date of reporting, unless we are instructed to the contrary. Asbestos samples are retained for 6 months.

If you have not already done so, please send us a purchase order if this is required by your company.

Where appropriate please make sure that our detection limits are suitable for your needs, if they are not, please notify us immediately.

All analysis is reported on a dry weight basis unless stated otherwise. Limits of detection for analyses carried out on as received samples are not moisture content corrected. Results are not surrogate corrected. Samples are dried at 35°C ±5°C unless otherwise stated. Moisture content for CEN Leachate tests are dried at 105°C ±5°C. Ash samples are dried at 37°C ±5°C.

Where Mineral Oil or Fats, Oils and Grease is quoted, this refers to Total Aliphatics C10-C40.

Where a CEN 10:1 ZERO Headspace VOC test has been carried out, a 10:1 ratio of water to wet (as received) soil has been used.

% Asbestos in Asbestos Containing Materials (ACMs) is determined by reference to HSG 264 The Survey Guide - Appendix 2 : ACMs in buildings listed in order of ease of fibre release.

Sufficient amount of sample must be received to carry out the testing specified. Where an insufficient amount of sample has been received the testing may not meet the requirements of our accredited methods, as such accreditation may be removed.

Negative Neutralization Potential (NP) values are obtained when the volume of NaOH (0.1N) titrated (pH 8.3) is greater than the volume of HCl (1N) to reduce the pH of the sample to 2.0 - 2.5. Any negative NP values are corrected to 0.

The calculation of Pyrite content assumes that all oxidisable sulphides present in the sample are pyrite. This may not be the case. The calculation may be an overestimate when other sulphides such as Barite (Barium Sulphate) are present.

WATERS

Please note we are not a UK Drinking Water Inspectorate (DWI) Approved Laboratory .

ISO17025 accreditation applies to surface water and groundwater and usually one other matrix which is analysis specific, any other liquids are outside our scope of accreditation.

As surface waters require different sample preparation to groundwaters the laboratory must be informed of the water type when submitting samples.

Where Mineral Oil or Fats, Oils and Grease is quoted, this refers to Total Aliphatics C10-C40.

STACK EMISSIONS

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation for Dioxins and Furans and Dioxin like PCBs has been performed on XAD-2 Resin, only samples which use this resin will be within our MCERTS scope.

Where appropriate please make sure that our detection limits are suitable for your needs, if they are not, please notify us immediately.

DEVIATING SAMPLES

All samples should be submitted to the laboratory in suitable containers with sufficient ice packs to sustain an appropriate temperature for the requested analysis. The temperature of sample receipt is recorded on the confirmation schedules in order that the client can make an informed decision as to whether testing should still be undertaken.

SURROGATES

Surrogate compounds are added during the preparation process to monitor recovery of analytes. However low recovery in soils is often due to peat, clay or other organic rich matrices. For waters this can be due to oxidants, surfactants, organic rich sediments or remediation fluids. Acceptable limits for most organic methods are 70 - 130% and for VOCs are 50 - 150%. When surrogate recoveries are outside the performance criteria but the associated AQC passes this is assumed to be due to matrix effect. Results are not surrogate corrected.

DILUTIONS

A dilution suffix indicates a dilution has been performed and the reported result takes this into account. No further calculation is required.

BLANKS

Where analytes have been found in the blank, the sample will be treated in accordance with our laboratory procedure for dealing with contaminated blanks.

Please include all sections of this report if it is reproduced

All solid results are expressed on a dry weight basis unless stated otherwise.

NOTE

Data is only reported if the laboratory is confident that the data is a true reflection of the samples analysed. Data is only reported as accredited when all the requirements of our Quality System have been met. In certain circumstances where all the requirements of the Quality System have not been met, for instance if the associated AQC has failed, the reason is fully investigated and documented. The sample data is then evaluated alongside the other quality control checks performed during analysis to determine its suitability. Following this evaluation, provided the sample results have not been effected, the data is reported but accreditation is removed. It is a requirement of our Accreditation Body for data not reported as accredited to be considered indicative only, but this does not mean the data is not valid.

Where possible, and if requested, samples will be re-extracted and a revised report issued with accredited results. Please do not hesitate to contact the laboratory if further details are required of the circumstances which have led to the removal of accreditation.

Laboratory records are kept for a period of no less than 6 years.

REPORTS FROM THE SOUTH AFRICA LABORATORY

Any method number not prefixed with SA has been undertaken in our UK laboratory unless reported as subcontracted.

Measurement Uncertainty

Measurement uncertainty defines the range of values that could reasonably be attributed to the measured quantity. This range of values has not been included within the reported results. Uncertainty expressed as a percentage can be provided upon request.

Customer Provided Information

Sample ID and depth is information provided by the customer.

ABBREVIATIONS and ACRONYMS USED

#	ISO17025 (UKAS Ref No. 4225) accredited - UK.
SA	ISO17025 (SANAS Ref No.T0729) accredited - South Africa
B	Indicates analyte found in associated method blank.
DR	Dilution required.
M	MCERTS accredited.
NA	Not applicable
NAD	No Asbestos Detected.
ND	None Detected (usually refers to VOC and/SVOC TICs).
NDP	No Determination Possible
SS	Calibrated against a single substance
SV	Surrogate recovery outside performance criteria. This may be due to a matrix effect.
W	Results expressed on as received basis.
+	AQC failure, accreditation has been removed from this result, if appropriate, see 'Note' on previous page.
>>	Results above quantitative calibration range. The result should be considered the minimum value and is indicative only. The actual result could be significantly higher.
*	Analysis subcontracted to an Element Materials Technology approved laboratory.
AD	Samples are dried at 35°C ±5°C
CO	Suspected carry over
LOD/LOR	Limit of Detection (Limit of Reporting) in line with ISO 17025 and MCERTS
ME	Matrix Effect
NFD	No Fibres Detected
BS	AQC Sample
LB	Blank Sample
N	Client Sample
TB	Trip Blank Sample
OC	Outside Calibration Range
AA	x5 Dilution

HWOL ACRONYMS AND OPERATORS USED

HS	Headspace Analysis.
EH	Extractable Hydrocarbons - i.e. everything extracted by the solvent.
CU	Clean-up - e.g. by florisil, silica gel.
1D	GC - Single coil gas chromatography.
Total	Aliphatics & Aromatics.
AL	Aliphatics only.
AR	Aromatics only.
2D	GC-GC - Double coil gas chromatography.
#1	EH_Total but with humics mathematically subtracted
#2	EU_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
MS	Mass Spectrometry.

EMT Job No: 23/14875 23/14735

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/S ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
PM4	Gravimetric measurement of Natural Moisture Content and % Moisture Content at either 35°C or 105°C. Calculation based on ISO 11465:1993(E) and BS1377-2:1990.	PM0	No preparation is required.			AR	
TM4	Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of PAHs by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.			AR	Yes
TM4	Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of PAHs by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.	Yes		AR	Yes
TM4	Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of PAHs by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.	Yes	Yes	AR	Yes
TM5	Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM16	Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.			AR	
TM5	Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM8/PM16	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required/Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.			AR	Yes
TM5	Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM8/PM16	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required/Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.	Yes		AR	Yes
TM5	Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM8/PM16	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required/Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.	Yes	Yes	AR	Yes
TM5/TM36	please refer to TM5 and TM36 for method details	PM8/PM12/PM16	please refer to PM8/PM16 and PM12 for method details			AR	Yes
PM13	A visual examination of the solid sample is carried out to ascertain sample make up, colour and any other inclusions. This is not a geotechnical description.	PM0	No preparation is required.			AR	No

EMT Job No: 23/14875 23/14735

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/S ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM17	Modified US EPA method 8270D v5:2014. Determination of specific Polychlorinated Biphenyl congeners by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.	Yes		AR	Yes
TM20	Modified BS 1377-3:1990/USEPA 160.1/3 (TDS/TS: 1971) Gravimetric determination of Total Dissolved Solids/Total Solids	PM0	No preparation is required.			AR	Yes
TM21	Modified BS 7755-3:1995, ISO10694:1995 Determination of Total Organic Carbon or Total Carbon by combustion in an Eltra TOC furnace/analyser in the presence of oxygen. The CO2 generated is quantified using infra-red detection. Organic Matter (SOM) calculated as per EA MCERTS Chemical Testing of Soil, March 2012 v4.	PM24	Preparation of Soil and Marine Sediment Samples for Total Organic Carbon.			AD	Yes
TM21	Modified BS 7755-3:1995, ISO10694:1995 Determination of Total Organic Carbon or Total Carbon by combustion in an Eltra TOC furnace/analyser in the presence of oxygen. The CO2 generated is quantified using infra-red detection. Organic Matter (SOM) calculated as per EA MCERTS Chemical Testing of Soil, March 2012 v4.	PM24	Preparation of Soil and Marine Sediment Samples for Total Organic Carbon.	Yes		AD	Yes
TM22	Modified BS1377-3:1990 Gravimetric determination of Loss on Ignition by temperature controlled Muffle Furnace (35C-440C). On request modified ASTM D2974-00 LOI (105C-440C)	PM0	No preparation is required.	Yes		AD	Yes
TM26	Determination of phenols by Reversed Phased High Performance Liquid Chromatography and Electro-Chemical Detection.	PM0	No preparation is required.			AR	Yes
TM26	Determination of phenols by Reversed Phased High Performance Liquid Chromatography and Electro-Chemical Detection.	PM21B	As Received samples are extracted in Methanol: Water (60:40) by reciprocal shaker.			AR	Yes
TM30	Determination of Trace Metals by ICP-OES (Inductively Coupled Plasma – Optical Emission Spectrometry); WATERS by Modified USEPA Method 200.7, Rev. 4.4, 1994; Modified EPA Method 6010B, Rev.2, Dec 1996; Modified BS EN ISO 11885:2009: SOILS by Modified USEP 6010B, Rev.2, Dec.1996; Modified EPA Method 3050B, Rev.2, Dec.1996	PM15	Acid digestion of dried and ground solid samples using Aqua Regia refluxed at 112.5 °C. Samples containing asbestos are not dried and ground.			AD	Yes
TM30	Determination of Trace Metals by ICP-OES (Inductively Coupled Plasma – Optical Emission Spectrometry); WATERS by Modified USEPA Method 200.7, Rev. 4.4, 1994; Modified EPA Method 6010B, Rev.2, Dec 1996; Modified BS EN ISO 11885:2009: SOILS by Modified USEP 6010B, Rev.2, Dec.1996; Modified EPA Method 3050B, Rev.2, Dec.1996	PM15	Acid digestion of dried and ground solid samples using Aqua Regia refluxed at 112.5 °C. Samples containing asbestos are not dried and ground.	Yes	Yes	AD	Yes
TM30	Determination of Trace Metals by ICP-OES (Inductively Coupled Plasma – Optical Emission Spectrometry); WATERS by Modified USEPA Method 200.7, Rev. 4.4, 1994; Modified EPA Method 6010B, Rev.2, Dec 1996; Modified BS EN ISO 11885:2009: SOILS by Modified USEP 6010B, Rev.2, Dec.1996; Modified EPA Method 3050B, Rev.2, Dec.1996	PM17	Modified method BS EN12457-2:2002 As received solid samples are leached with water in a 10:1 water to soil ratio for 24 hours, the moisture content of the sample is included in the ratio.	Yes		AR	Yes

EMT Job No: 23/14875 23/14735

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/S ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM36	Modified US EPA method 8015B v2:1996. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID. MTBE by GCFID co-elutes with 3-methylpentane if present and therefore can give a false positive. Positive MTBE results will be re-run using GC-MS to double check, when requested.	PM12	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.			AR	Yes
TM36	Modified US EPA method 8015B v2:1996. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID. MTBE by GCFID co-elutes with 3-methylpentane if present and therefore can give a false positive. Positive MTBE results will be re-run using GC-MS to double check, when requested.	PM12	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.	Yes		AR	Yes
TM36	Modified US EPA method 8015B v2:1996. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID. MTBE by GCFID co-elutes with 3-methylpentane if present and therefore can give a false positive. Positive MTBE results will be re-run using GC-MS to double check, when requested.	PM12	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.	Yes	Yes	AR	Yes
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) – All anions comparable to BS ISO 15923-1: 2013l	PM0	No preparation is required.	Yes		AR	Yes
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) – All anions comparable to BS ISO 15923-1: 2013l	PM20	Extraction of dried and ground or as received samples with deionised water in a 2:1 water to solid ratio using a reciprocal shaker for all analytes except hexavalent chromium. Extraction of as received sample using 10:1 ratio of 0.2M sodium hydroxide to soil for hexavalent chromium using a reciprocal shaker.	Yes	Yes	AD	Yes
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) – All anions comparable to BS ISO 15923-1: 2013l	PM20	Extraction of dried and ground or as received samples with deionised water in a 2:1 water to solid ratio using a reciprocal shaker for all analytes except hexavalent chromium. Extraction of as received sample using 10:1 ratio of 0.2M sodium hydroxide to soil for hexavalent chromium using a reciprocal shaker.	Yes		AR	Yes
TM50	Acid soluble sulphate (Total Sulphate) analysed by ICP-OES	PM29	A hot hydrochloric acid digest is performed on a dried and ground sample, and the resulting liquor is analysed.	Yes	Yes	AD	Yes
TM60	TC/TOC analysis of Waters by High Temperature Combustion followed by NDIR detection. Based on the following modified standard methods: USEPA 9060A (2002), APHA SMEWW 5310B:1999 22nd Edition, ASTM D 7573, and USEPA 415.1.	PM0	No preparation is required.			AR	Yes
TM65	Asbestos Bulk Identification method based on HSG 248 Second edition (2021)	PM42	Modified SCA Blue Book V.12 draft 2017 and WM3 1st Edition v1.1:2018. Solid samples undergo a thorough visual inspection for asbestos fibres prior to asbestos identification using TM065.	Yes		AR	
TM73	Modified US EPA methods 150.1 (1982) and 9045D Rev. 4 - 2004) and BS1377-3:1990. Determination of pH by Metrohm automated probe analyser.	PM11	Extraction of as received solid samples using one part solid to 2.5 parts deionised water.	Yes	Yes	AR	No

EMT Job No: 23/14875 23/14735

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/S ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM89	Modified USEPA method OIA-1667 (1999). Determination of cyanide by Flow Injection Analyser. Where WAD cyanides are required a Ligand displacement step is carried out before analysis.	PM45	As received solid samples are extracted with 1M NaOH by orbital shaker for Cyanide, Sulphide and Thiocyanate analysis.	Yes	Yes	AR	Yes
TM173	Analysis of fluoride by ISE (Ion Selective Electrode) using modified ISE method 9214 - 340.2 (EPA 1998)	PM0	No preparation is required.			AR	Yes
NONE	No Method Code	NONE	No Method Code			AD	Yes
NONE	No Method Code	PM17	Modified method BS EN12457-2:2002 As received solid samples are leached with water in a 10:1 water to soil ratio for 24 hours, the moisture content of the sample is included in the ratio.				
NONE	No Method Code	PM4	Gravimetric measurement of Natural Moisture Content and % Moisture Content at either 35°C or 105°C. Calculation based on ISO 11465:1993(E) and BS1377-2:1990.			AR	



APPENDIX I

Waste Classification Report



Waste Classification Report

HazWasteOnline™ classifies waste as either **hazardous** or **non-hazardous** based on its chemical composition, related legislation and the rules and data defined in the current UK or EU technical guidance (Appendix C) (note that HP 9 Infectious is not assessed). It is the responsibility of the classifier named below to:

- a) understand the origin of the waste
- b) select the correct List of Waste code(s)
- c) confirm that the list of determinands, results and sampling plan are fit for purpose
- d) select and justify the chosen metal species (Appendix B)
- e) correctly apply moisture correction and other available corrections
- f) add the meta data for their user-defined substances (Appendix A)
- g) check that the classification engine is suitable with respect to the national destination of the waste (Appendix C)



C8QV7-UZ2N7-NV9PH

To aid the reviewer, the laboratory results, assumptions and justifications managed by the classifier are highlighted in pale yellow.

Job name

Meadhurst, Uppingham

Description/Comments

Project

UK23.6614

Site

Meadhurst, Uppingham

Classified by

Name:
Michael Judson
Date:
03 Oct 2023 13:17 GMT
Telephone:
01954 710 666

Company:
Environmental Strategies Ltd EPS
7B Caxton House, Broad Street, Cambourne
Cambridge
CB23 6JN

HazWasteOnline™ provides a two day, hazardous waste classification course that covers the use of the software and both basic and advanced waste classification techniques. Certification has to be renewed every 3 years.

HazWasteOnline™ Certification:

CERTIFIED

Course

Hazardous Waste Classification
Most recent 3 year Refresher

Date

08 Dec 2016
07 Dec 2021

Next 3 year Refresher due by Dec 2024

Purpose of classification

2 - Material Characterisation

Address of the waste

Uppingham School, Meadhurst 11 Ayston Rd Uppingham Oakham

Post Code **LE15 9RL**

SIC for the process giving rise to the waste

41201 Construction of commercial buildings

Description of industry/producer giving rise to the waste

School and associated playing fields.

Description of the specific process, sub-process and/or activity that created the waste

Excavation of soils for construction of an extension to the existing school.

Description of the waste

Waste soils comprising made ground and underlying natural soils.



Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	BH1 D6-04/09/2023-6.5m		Non Hazardous		3
2	WS01 ES1-01/09/2023-0.00-0.40m		Non Hazardous		6
3	WS02 ES1-01/09/2023-0.00-0.40m		Non Hazardous		8
4	WS03 ES1-01/09/2023-0.00-0.40m		Non Hazardous		10
5	WS03 ES2-01/09/2023-1.60-2.00m		Non Hazardous		12

Related documents

#	Name	Description
1	EMT-23-14875-Batch-1-202309191454.HWOL	Element .hwol file used to populate the Job
2	EMT-23-14735-Batch-1-202309190950.HWOL	Element .hwol file used to populate the Job
3	EPS Waste Stream	waste stream template used to create this Job

Report

Created by: Michael Judson

Created date: 03 Oct 2023 13:17 GMT

Appendices	Page
Appendix A: Classifier defined and non GB MCL determinands	14
Appendix B: Rationale for selection of metal species	15
Appendix C: Version	16

Classification of sample: BH1 D6-04/09/2023-6.5m

✔ **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
BH1 D6-04/09/2023-6.5m	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
14.6%	Entry:
(dry weight correction)	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 14.6% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	arsenic { arsenic pentoxide }				117.7 mg/kg	1.534	157.537 mg/kg	0.0158 %	✓	
	033-004-00-6	215-116-9	1303-28-2							
2	cadmium { cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex }			1	<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	048-001-00-5									
3	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				51.1 mg/kg	1.462	65.171 mg/kg	0.00652 %	✓	
		215-160-9	1308-38-9							
4	copper { dicopper oxide; copper (I) oxide }				19 mg/kg	1.126	18.667 mg/kg	0.00187 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
5	lead { lead compounds with the exception of those specified elsewhere in this Annex }			1	19 mg/kg		16.579 mg/kg	0.00166 %	✓	
	082-001-00-6									
6	mercury { mercury }				0.2 mg/kg		0.175 mg/kg	0.0000175 %	✓	
	080-001-00-0	231-106-7	7439-97-6							
7	nickel { nickel }			7	39.1 mg/kg		34.119 mg/kg	0.00341 %	✓	
	028-002-00-7	231-111-4	7440-02-0							
8	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	1.405	<1.405 mg/kg	<0.000141 %		<LOD
	034-002-00-8									
9	zinc { zinc oxide }				64 mg/kg	1.245	69.513 mg/kg	0.00695 %	✓	
	030-013-00-7	215-222-5	1314-13-2							
10	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
11	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
12	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
13	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
14	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
15	anthracene	204-371-1	120-12-7		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
16	fluoranthene	205-912-4	206-44-0		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
17	pyrene	204-927-3	129-00-0		0.03 mg/kg		0.0262 mg/kg	0.00000262 %	✓	
18	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3	<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
19	chrysene	601-048-00-0	205-923-4	218-01-9	<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
20	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8	<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
21	indeno[123-cd]pyrene	205-893-2	193-39-5		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
22	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
23	benzo[ghi]perylene	205-883-8	191-24-2		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
24	coronene	205-881-7	191-07-1		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
25	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
26	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9	<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
27	TPH (C6 to C40) petroleum group		TPH		<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
28	polychlorobiphenyls; PCB	602-039-00-4	215-648-1	1336-36-3	<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
29	benzene	601-020-00-8	200-753-7	71-43-2	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
30	toluene	601-021-00-3	203-625-9	108-88-3	0.006 mg/kg		0.0052 mg/kg	0.000000524 %	✓	
31	ethylbenzene	601-023-00-4	202-849-4	100-41-4	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
32	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]	<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
33	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<LOD
34	pH		PH		7.58 pH		7.58 pH	7.58 pH		
35	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
36	sulfur { sulfur }	016-094-00-1	231-722-6	7704-34-9	24500 mg/kg		21378.709 mg/kg	2.138 %	✓	
Total:								2.18 %		

Key

- User supplied data
- Determinand values ignored for classification, see column 'Conc. Not Used' for reason
- Determinand defined or amended by HazWasteOnline (see Appendix A)
- Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
- <LOD** Below limit of detection
- CLP: Note 1 Only the metal concentration has been used for classification



Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because WM3 states that the Hazard Statement HP 3 (first and fourth indents) can be discounted as this is a solid waste without a free draining liquid phase

Hazard Statements hit:

Flam. Liq. 2; H225 "Highly flammable liquid and vapour."

Because of determinand:

toluene: (conc.: 5.24e-07%)



Classification of sample: WS01 ES1-01/09/2023-0.00-0.40m

✔ **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
WS01 ES1-01/09/2023-0.00-0.40m	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	Entry:
15.4% (dry weight correction)	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 15.4% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
1	arsenic { arsenic pentoxide }				110.7 mg/kg	1.534	147.14 mg/kg	0.0147 %	✓		
	033-004-00-6	215-116-9	1303-28-2								
2	cadmium { cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex }			1	<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD	
	048-001-00-5										
3	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				144.4 mg/kg	1.462	182.884 mg/kg	0.0183 %	✓		
		215-160-9	1308-38-9								
4	copper { dicopper oxide; copper (I) oxide }				31 mg/kg	1.126	30.245 mg/kg	0.00302 %	✓		
	029-002-00-X	215-270-7	1317-39-1								
5	lead { lead compounds with the exception of those specified elsewhere in this Annex }			1	199 mg/kg		172.444 mg/kg	0.0172 %	✓		
	082-001-00-6										
6	mercury { mercury }				0.6 mg/kg		0.52 mg/kg	0.000052 %	✓		
	080-001-00-0	231-106-7	7439-97-6								
7	nickel { nickel }			7	61.8 mg/kg		53.553 mg/kg	0.00536 %	✓		
	028-002-00-7	231-111-4	7440-02-0								
8	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	1.405	<1.405 mg/kg	<0.000141 %		<LOD	
	034-002-00-8										
9	zinc { zinc oxide }				262 mg/kg	1.245	282.595 mg/kg	0.0283 %	✓		
	030-013-00-7	215-222-5	1314-13-2								
10	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD	
	601-052-00-2	202-049-5	91-20-3								
11	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD	
		205-917-1	208-96-8								
12	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD	
		201-469-6	83-32-9								
13	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD	
		201-695-5	86-73-7								
14	phenanthrene				0.1 mg/kg		0.0867 mg/kg	0.0000867 %	✓		
		201-581-5	85-01-8								




#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
15	anthracene	204-371-1	120-12-7		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
16	fluoranthene	205-912-4	206-44-0		0.18 mg/kg		0.156 mg/kg	0.0000156 %	✓	
17	pyrene	204-927-3	129-00-0		0.17 mg/kg		0.147 mg/kg	0.0000147 %	✓	
18	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3	0.14 mg/kg		0.121 mg/kg	0.0000121 %	✓	
19	chrysene	601-048-00-0	205-923-4	218-01-9	0.14 mg/kg		0.121 mg/kg	0.0000121 %	✓	
20	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8	<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
21	indeno[123-cd]pyrene	205-893-2	193-39-5		0.05 mg/kg		0.0433 mg/kg	0.00000433 %	✓	
22	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
23	benzo[ghi]perylene	205-883-8	191-24-2		0.06 mg/kg		0.052 mg/kg	0.0000052 %	✓	
24	coronene	205-881-7	191-07-1		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
25	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2	0.14 mg/kg		0.121 mg/kg	0.0000121 %	✓	
26	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9	0.06 mg/kg		0.052 mg/kg	0.0000052 %	✓	
27	TPH (C6 to C40) petroleum group		TPH		<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
28	polychlorobiphenyls; PCB	602-039-00-4	215-648-1	1336-36-3	<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
29	benzene	601-020-00-8	200-753-7	71-43-2	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
30	toluene	601-021-00-3	203-625-9	108-88-3	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
31	ethylbenzene	601-023-00-4	202-849-4	100-41-4	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
32	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]	<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
33	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<LOD
34	pH		PH		7.73 pH		7.73 pH	7.73 pH		
35	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
36	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5			<0.5 mg/kg	1.884	<0.942 mg/kg	<0.0000942 %		<LOD
Total:								0.0926 %		

Key

- User supplied data
- Determinand values ignored for classification, see column 'Conc. Not Used' for reason
- Determinand defined or amended by HazWasteOnline (see Appendix A)
- Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
- <LOD Below limit of detection
- CLP: Note 1 Only the metal concentration has been used for classification

Classification of sample: WS02 ES1-01/09/2023-0.00-0.40m

 **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
WS02 ES1-01/09/2023-0.00-0.40m	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	Entry:
13% (dry weight correction)	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 13% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number									
1	arsenic { arsenic pentoxide }				125.9	mg/kg	1.534	170.898	mg/kg	0.0171 %	✓	
	033-004-00-6	215-116-9	1303-28-2									
2	cadmium { cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex }			1	<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
	048-001-00-5											
3	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				153.8	mg/kg	1.462	198.927	mg/kg	0.0199 %	✓	
		215-160-9	1308-38-9									
4	copper { dicopper oxide; copper (I) oxide }				54	mg/kg	1.126	53.804	mg/kg	0.00538 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
5	lead { lead compounds with the exception of those specified elsewhere in this Annex }			1	222	mg/kg		196.46	mg/kg	0.0196 %	✓	
	082-001-00-6											
6	mercury { mercury }				0.9	mg/kg		0.796	mg/kg	0.0000796 %	✓	
	080-001-00-0	231-106-7	7439-97-6									
7	nickel { nickel }			7	68.6	mg/kg		60.708	mg/kg	0.00607 %	✓	
	028-002-00-7	231-111-4	7440-02-0									
8	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				1	mg/kg	1.405	1.243	mg/kg	0.000124 %	✓	
	034-002-00-8											
9	zinc { zinc oxide }				296	mg/kg	1.245	326.049	mg/kg	0.0326 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
10	naphthalene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3									
11	acenaphthylene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8									
12	acenaphthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9									
13	fluorene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7									
14	phenanthrene				0.07	mg/kg		0.0619	mg/kg	0.00000619 %	✓	
		201-581-5	85-01-8									



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
15	anthracene	204-371-1	120-12-7		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
16	fluoranthene	205-912-4	206-44-0		0.11 mg/kg		0.0973 mg/kg	0.00000973 %	✓	
17	pyrene	204-927-3	129-00-0		0.1 mg/kg		0.0885 mg/kg	0.00000885 %	✓	
18	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3	0.08 mg/kg		0.0708 mg/kg	0.00000708 %	✓	
19	chrysene	601-048-00-0	205-923-4	218-01-9	0.08 mg/kg		0.0708 mg/kg	0.00000708 %	✓	
20	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8	<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
21	indeno[123-cd]pyrene	205-893-2	193-39-5		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
22	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
23	benzo[ghi]perylene	205-883-8	191-24-2		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
24	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2	0.09 mg/kg		0.0796 mg/kg	0.00000796 %	✓	
25	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9	0.03 mg/kg		0.0265 mg/kg	0.00000265 %	✓	
26	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<LOD
27	pH		PH		7.77 pH		7.77 pH	7.77 pH		
28	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5			<0.5 mg/kg	1.884	<0.942 mg/kg	<0.0000942 %		<LOD
Total:								0.101 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS03 ES1-01/09/2023-0.00-0.40m

✔ **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
WS03 ES1-01/09/2023-0.00-0.40m	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	Entry:
15.2% (dry weight correction)	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 15.2% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
1	arsenic { arsenic pentoxide }				102.5 mg/kg	1.534	136.478 mg/kg	0.0136 %	✓		
	033-004-00-6	215-116-9	1303-28-2								
2	cadmium { cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex }			1	<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD	
	048-001-00-5										
3	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				133.3 mg/kg	1.462	169.119 mg/kg	0.0169 %	✓		
		215-160-9	1308-38-9								
4	copper { dicopper oxide; copper (I) oxide }				266 mg/kg	1.126	259.971 mg/kg	0.026 %	✓		
	029-002-00-X	215-270-7	1317-39-1								
5	lead { lead compounds with the exception of those specified elsewhere in this Annex }			1	815 mg/kg		707.465 mg/kg	0.0707 %	✓		
	082-001-00-6										
6	mercury { mercury }				1.2 mg/kg		1.042 mg/kg	0.000104 %	✓		
	080-001-00-0	231-106-7	7439-97-6								
7	nickel { nickel }			7	66.6 mg/kg		57.812 mg/kg	0.00578 %	✓		
	028-002-00-7	231-111-4	7440-02-0								
8	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	1.405	<1.405 mg/kg	<0.000141 %		<LOD	
	034-002-00-8										
9	zinc { zinc oxide }				479 mg/kg	1.245	517.55 mg/kg	0.0518 %	✓		
	030-013-00-7	215-222-5	1314-13-2								
10	naphthalene				0.6 mg/kg		0.521 mg/kg	0.0000521 %	✓		
	601-052-00-2	202-049-5	91-20-3								
11	acenaphthylene				0.13 mg/kg		0.113 mg/kg	0.0000113 %	✓		
		205-917-1	208-96-8								
12	acenaphthene				2.4 mg/kg		2.083 mg/kg	0.000208 %	✓		
		201-469-6	83-32-9								
13	fluorene				2.26 mg/kg		1.962 mg/kg	0.000196 %	✓		
		201-695-5	86-73-7								
14	phenanthrene				12.72 mg/kg		11.042 mg/kg	0.0011 %	✓		
		201-581-5	85-01-8								



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
15	anthracene	204-371-1	120-12-7		4.18 mg/kg		3.628 mg/kg	0.000363 %	✓	
16	fluoranthene	205-912-4	206-44-0		10.24 mg/kg		8.889 mg/kg	0.000889 %	✓	
17	pyrene	204-927-3	129-00-0		7.78 mg/kg		6.753 mg/kg	0.000675 %	✓	
18	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3	4.48 mg/kg		3.889 mg/kg	0.000389 %	✓	
19	chrysene	601-048-00-0	205-923-4	218-01-9	4.44 mg/kg		3.854 mg/kg	0.000385 %	✓	
20	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8	3.23 mg/kg		2.804 mg/kg	0.00028 %	✓	
21	indeno[123-cd]pyrene	205-893-2	193-39-5		1.36 mg/kg		1.181 mg/kg	0.000118 %	✓	
22	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	0.29 mg/kg		0.252 mg/kg	0.0000252 %	✓	
23	benzo[ghi]perylene	205-883-8	191-24-2		1.12 mg/kg		0.972 mg/kg	0.0000972 %	✓	
24	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2	3.96 mg/kg		3.438 mg/kg	0.000344 %	✓	
25	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9	1.54 mg/kg		1.337 mg/kg	0.000134 %	✓	
26	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<LOD
27	pH		PH		7.58 pH		7.58 pH	7.58 pH		
28	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5			<0.5 mg/kg	1.884	<0.942 mg/kg	<0.0000942 %		<LOD
Total:								0.191 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS03 ES2-01/09/2023-1.60-2.00m

✔ **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
WS03 ES2-01/09/2023-1.60-2.00m	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	Entry:
22.4% (dry weight correction)	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 22.4% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
1	arsenic { arsenic pentoxide }				60 mg/kg	1.534	75.19	mg/kg	0.00752 %	✔	
	033-004-00-6	215-116-9	1303-28-2								
2	cadmium { cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex }			1	<0.1 mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
	048-001-00-5										
3	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				335 mg/kg	1.462	400.017	mg/kg	0.04 %	✔	
		215-160-9	1308-38-9								
4	copper { dicopper oxide; copper (I) oxide }				<1 mg/kg	1.126	<1.126	mg/kg	<0.000113 %		<LOD
	029-002-00-X	215-270-7	1317-39-1								
5	lead { lead compounds with the exception of those specified elsewhere in this Annex }			1	60 mg/kg		49.02	mg/kg	0.0049 %	✔	
	082-001-00-6										
6	mercury { mercury }				0.4 mg/kg		0.327	mg/kg	0.0000327 %	✔	
	080-001-00-0	231-106-7	7439-97-6								
7	nickel { nickel }			7	119.7 mg/kg		97.794	mg/kg	0.00978 %	✔	
	028-002-00-7	231-111-4	7440-02-0								
8	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	1.405	<1.405	mg/kg	<0.000141 %		<LOD
	034-002-00-8										
9	zinc { zinc oxide }				617 mg/kg	1.245	627.442	mg/kg	0.0627 %	✔	
	030-013-00-7	215-222-5	1314-13-2								
10	naphthalene				<0.04 mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3								
11	acenaphthylene				<0.03 mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8								
12	acenaphthene				<0.05 mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9								
13	fluorene				<0.04 mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7								
14	phenanthrene				<0.03 mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8								



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
15	anthracene	204-371-1	120-12-7		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
16	fluoranthene	205-912-4	206-44-0		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
17	pyrene	204-927-3	129-00-0		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
18	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3	<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
19	chrysene	601-048-00-0	205-923-4	218-01-9	<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
20	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8	<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
21	indeno[123-cd]pyrene		205-893-2	193-39-5	<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
22	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
23	benzo[ghi]perylene		205-883-8	191-24-2	<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
24	coronene		205-881-7	191-07-1	<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
25	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
26	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9	<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
27	TPH (C6 to C40) petroleum group			TPH	<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
28	polychlorobiphenyls; PCB	602-039-00-4	215-648-1	1336-36-3	<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
29	benzene	601-020-00-8	200-753-7	71-43-2	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
30	toluene	601-021-00-3	203-625-9	108-88-3	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
31	ethylbenzene	601-023-00-4	202-849-4	100-41-4	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
32	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]	<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
33	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<LOD
34	pH			PH	7.37 pH		7.37 pH	7.37 pH		
35	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
Total:								0.131 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Appendix A: Classifier defined and non GB MCL determinands

■ **cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex**

GB MCL index number: 048-001-00-5

Description/Comments: Worst Case: IARC considers cadmium compounds Group 1; Carcinogenic to humans

Additional Hazard Statement(s): Carc. 1A; H350

Reason for additional Hazards Statement(s):

20 Nov 2021 - Carc. 1A; H350 hazard statement sourced from: IARC Group 1 (23, Sup 7, 100C) 2012

■ **chromium(III) oxide (worst case)** (EC Number: 215-160-9, CAS Number: 1308-38-9)

Description/Comments: Data from C&L Inventory Database

Data source: <https://echa.europa.eu/information-on-chemicals/cl-inventory-database/-/discli/details/33806>

Data source date: 17 Jul 2015

Hazard Statements: Acute Tox. 4; H332, Acute Tox. 4; H302, Eye Irrit. 2; H319, STOT SE 3; H335, Skin Irrit. 2; H315, Resp. Sens. 1; H334, Skin Sens. 1; H317, Repr. 1B; H360FD, Aquatic Acute 1; H400, Aquatic Chronic 1; H410

■ **lead compounds with the exception of those specified elsewhere in this Annex**

GB MCL index number: 082-001-00-6

Description/Comments: Least-worst case: IARC considers lead compounds Group 2A; Probably carcinogenic to humans; Lead REACH Consortium, following MCL protocols, considers many simple lead compounds to be Carcinogenic category 2

Additional Hazard Statement(s): Carc. 2; H351

Reason for additional Hazards Statement(s):

20 Nov 2021 - Carc. 2; H351 hazard statement sourced from: IARC Group 2A (Sup 7, 87) 2006; Lead REACH Consortium www.reach-lead.eu/substanceinformation.html. Review date 29/09/2015

■ **acenaphthylene** (EC Number: 205-917-1, CAS Number: 208-96-8)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 17 Jul 2015

Hazard Statements: Acute Tox. 4; H302, Acute Tox. 1; H330, Acute Tox. 1; H310, Eye Irrit. 2; H319, STOT SE 3; H335, Skin Irrit. 2; H315

■ **acenaphthene** (EC Number: 201-469-6, CAS Number: 83-32-9)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 17 Jul 2015

Hazard Statements: Eye Irrit. 2; H319, STOT SE 3; H335, Skin Irrit. 2; H315, Aquatic Acute 1; H400, Aquatic Chronic 1; H410, Aquatic Chronic 2; H411

■ **fluorene** (EC Number: 201-695-5, CAS Number: 86-73-7)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 06 Aug 2015

Hazard Statements: Aquatic Acute 1; H400, Aquatic Chronic 1; H410

■ **phenanthrene** (EC Number: 201-581-5, CAS Number: 85-01-8)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 06 Aug 2015

Hazard Statements: Acute Tox. 4; H302, Eye Irrit. 2; H319, STOT SE 3; H335, Carc. 2; H351, Skin Sens. 1; H317, Aquatic Acute 1; H400, Aquatic Chronic 1; H410, Skin Irrit. 2; H315

■ **anthracene** (EC Number: 204-371-1, CAS Number: 120-12-7)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 17 Jul 2015

Hazard Statements: Eye Irrit. 2; H319, STOT SE 3; H335, Skin Irrit. 2; H315, Skin Sens. 1; H317, Aquatic Acute 1; H400, Aquatic Chronic 1; H410

■ **fluoranthene** (EC Number: 205-912-4, CAS Number: 206-44-0)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 21 Aug 2015

Hazard Statements: Acute Tox. 4; H302, Aquatic Acute 1; H400, Aquatic Chronic 1; H410

▪ **pyrene** (EC Number: 204-927-3, CAS Number: 129-00-0)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 2014

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 21 Aug 2015

Hazard Statements: Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

▪ **indeno[123-cd]pyrene** (EC Number: 205-893-2, CAS Number: 193-39-5)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 06 Aug 2015

Hazard Statements: Carc. 2; H351

▪ **benzo[ghi]perylene** (EC Number: 205-883-8, CAS Number: 191-24-2)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 28/02/2015

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 23 Jul 2015

Hazard Statements: Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

▪ **coronene** (EC Number: 205-881-7, CAS Number: 191-07-1)

Description/Comments: Data from C&L Inventory Database; no entries in Registered Substances or Pesticides Properties databases; SDS: Sigma Aldrich, 1907/2006 compliant, dated 2012 - no entries; IARC – Group 3, not carcinogenic.

Data source: <http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=17010&HarmOnly=no?fc=true&lang=en>

Data source date: 16 Jun 2014

Hazard Statements: STOT SE 2; H371

▪ **TPH (C6 to C40) petroleum group** (CAS Number: TPH)

Description/Comments: Hazard statements taken from WM3 1st Edition 2015; Risk phrases: WM2 3rd Edition 2013

Data source: WM3 1st Edition 2015

Data source date: 25 May 2015

Hazard Statements: Flam. Liq. 3; H226 , Asp. Tox. 1; H304 , STOT RE 2; H373 , Muta. 1B; H340 , Carc. 1B; H350 , Repr. 2; H361d , Aquatic Chronic 2; H411

▪ **polychlorobiphenyls; PCB** (EC Number: 215-648-1, CAS Number: 1336-36-3)

GB MCL index number: 602-039-00-4

Description/Comments: Worst Case: IARC considers PCB Group 1; Carcinogenic to humans;

POP specific threshold from ATP1 (Regulation 756/2010/EU) to POPs Regulation (Regulation 850/2004/EC). Where applicable, the calculation method laid down in European standards EN 12766-1 and EN 12766-2 shall be applied.

Additional Hazard Statement(s): Carc. 1A; H350

Reason for additional Hazards Statement(s):

20 Nov 2021 - Carc. 1A; H350 hazard statement sourced from: IARC Group 1 (23, Sup 7, 100C) 2012

▪ **ethylbenzene** (EC Number: 202-849-4, CAS Number: 100-41-4)

GB MCL index number: 601-023-00-4

Description/Comments:

Additional Hazard Statement(s): Carc. 2; H351

Reason for additional Hazards Statement(s):

20 Nov 2021 - Carc. 2; H351 hazard statement sourced from: IARC Group 2B (77) 2000

▪ **pH** (CAS Number: PH)

Description/Comments: Appendix C4

Data source: WM3 1st Edition 2015

Data source date: 25 May 2015

Hazard Statements: None.

▪ **salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex**

GB MCL index number: 006-007-00-5

Description/Comments: Conversion factor based on a worst case compound: sodium cyanide

Additional Hazard Statement(s): EUH032 >= 0.2 %

Reason for additional Hazards Statement(s):

20 Nov 2021 - EUH032 >= 0.2 % hazard statement sourced from: WM3, Table C12.2

Appendix B: Rationale for selection of metal species

arsenic {arsenic pentoxide}

Worst Case



cadmium {cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex}

Using elemental Cadmium with no CrVI

chromium in chromium(III) compounds {chromium(III) oxide (worst case)}

Worst case species

copper {dicopper oxide; copper (I) oxide}

Worst case species

lead {lead compounds with the exception of those specified elsewhere in this Annex}

Worst case species

mercury {mercury}

Worst case species

nickel {nickel}

Worst case species

selenium {selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex}

Worst case species

zinc {zinc oxide}

Elemental Zinc with no CrVI

chromium in chromium(VI) compounds {chromium(VI) oxide}

Worst case species

sulfur {sulfur}

cyanides {salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex}

Appendix C: Version

HazWasteOnline Classification Engine: **WM3 1st Edition v1.2.GB - Oct 2021**
HazWasteOnline Classification Engine Version: 2023.271.5764.10641 (28 Sep 2023)
HazWasteOnline Database: 2023.270.5761.10634 (27 Sep 2023)

This classification utilises the following guidance and legislation:

WM3 v1.2.GB - Waste Classification - 1st Edition v1.2.GB - Oct 2021

CLP Regulation - Regulation 1272/2008/EC of 16 December 2008

1st ATP - Regulation 790/2009/EC of 10 August 2009

2nd ATP - Regulation 286/2011/EC of 10 March 2011

3rd ATP - Regulation 618/2012/EU of 10 July 2012

4th ATP - Regulation 487/2013/EU of 8 May 2013

Correction to 1st ATP - Regulation 758/2013/EU of 7 August 2013

5th ATP - Regulation 944/2013/EU of 2 October 2013

6th ATP - Regulation 605/2014/EU of 5 June 2014

WFD Annex III replacement - Regulation 1357/2014/EU of 18 December 2014

Revised List of Waste 2014 - Decision 2014/955/EU of 18 December 2014

7th ATP - Regulation 2015/1221/EU of 24 July 2015

8th ATP - Regulation (EU) 2016/918 of 19 May 2016

9th ATP - Regulation (EU) 2016/1179 of 19 July 2016

10th ATP - Regulation (EU) 2017/776 of 4 May 2017

HP14 amendment - Regulation (EU) 2017/997 of 8 June 2017

13th ATP - Regulation (EU) 2018/1480 of 4 October 2018

14th ATP - Regulation (EU) 2020/217 of 4 October 2019

15th ATP - Regulation (EU) 2020/1182 of 19 May 2020

The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use)(Amendment etc.) (EU Exit)

Regulations 2020 - UK: 2020 No. 1567 of 16th December 2020

The Waste and Environmental Permitting etc. (Legislative Functions and Amendment etc.) (EU Exit) Regulations 2020 - UK:

2020 No. 1540 of 16th December 2020

GB MCL List - version 1.1 of 09 June 2021



APPENDIX J

Laboratory Results – Geotechnical



TEST REPORT
 ISSUED BY SOIL PROPERTY TESTING LTD
 DATE ISSUED: 02/10/2023



Contract	UK23.6614 Uppingham
Serial No.	43335_1

Client:
 Environmental Protection Strategies
 Ltd
 Unit 7
 Caxton House
 Broad Street
 Great Cambourne
 Cambridge
 CB23 6JN

Soil Property Testing Ltd

**15, 16, 18 Halcyon Court, St Margaret's Way,
 Stukeley Meadows, Huntingdon,
 Cambridgeshire, PE29 6DG**

Tel: 01480 455579

Email: enquiries@soilpropertytesting.com

Website: www.soilpropertytesting.com

Samples Submitted By:
 Environmental Protection Strategies
 Ltd

Approved Signatories:

J.C. Garner B.Eng (Hons) FGS
 Technical Director & Quality Manager

W. Johnstone
 Materials Lab Manager



Samples Labelled:
 UK23.6614 Uppingham

Date Received: 11/09/2023	Samples Tested Between: 11/09/2023 and 02/10/2023
----------------------------------	--

Remarks:
 For the attention of Matthew Cook
 Your Reference No: UK23.6614

- Notes:**
- All remaining samples or remnants from this contract will be disposed of after 21 days from today, unless we are notified to the contrary.
 - Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.
 - Tests marked "NOT UKAS ACCREDITED" in this test report are not included in the UKAS Accreditation Schedule for this testing laboratory.
 - This test report may not be reproduced other than in full except with the prior written approval of the issuing laboratory.
 - The results within this report only relate to the items tested or sampled.



TEST REPORT

ISSUED BY SOIL PROPERTY TESTING LTD
DATE ISSUED: 02/10/2023



Contract		UK23.6614 Uppingham																
Serial No.		43335_1						Target Date			25/09/2023							
Scheduled By		Environmental Protection Strategies Ltd																
Schedule Remarks																		
Bore Hole No.	Type	Sample Ref.	Top Depth	Particle Size Distribution (BS1377)										Sample Remarks				
				Sulphate Content/pH Value		Water Content (BS EN)		Liquid/Plastic Limits		Density Determination BS EN								
BH1	D	4	4.00	1	1													
BH1	D	7	8.00			1	1											
BH1	B	5	9.50					1										
BH1	D	14	14.00			1	1											
BH1	B	6	14.50					1										
WS01	D	2	3.80	1	1													
WS02	D	1	0.80	1	1													
WS03	D	2	1.80	1	1													
WS03	B	1	2.00					1										
Totals				4	4	2	2	3										End of Schedule



TEST REPORT

ISSUED BY SOIL PROPERTY TESTING LTD
DATE ISSUED: 02/10/2023



Contract	UK23.6614 Uppingham
Serial No.	43335_1

SUMMARY OF WATER CONTENT, LIQUID LIMIT, PLASTIC LIMIT, PLASTICITY INDEX AND LIQUIDITY INDEX

Borehole /Pit No.	Depth (m)	Type	Ref.	Water Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)	Liquid-ity Index	Sample Preparation				Description	Class
									Method	Ret'd 0.425mm (%)	Corr'd W/C <0.425mm	Curing Time (hrs)		
BH1	8.00	D	7	16.7	50	20	30	-0.11	From Natural	0 (A)		25	Very stiff mottled dark greyish brown and dark grey CLAY	CI/CH
BH1	14.00	D	14	17.2	58	22	36	-0.13	From Natural	0 (A)		24	Very stiff friable dark grey CLAY	CH

Method Of Preparation: BS EN ISO: 17892-1: 2014 & BS 1377: Part 2:1990:4.2
 Method of Test: BS EN ISO: 17892-1: 2014 & BS 1377: Part 2:1990:3.2, 4.4, 5.3, 5.4
 Type of Sample Key: U = Undisturbed, B = Bulk, D = Disturbed, J = Jar, W = Water, SPT = Split Spoon Sample, C = Core Cutter
 Comments:
 Table Notation: Ret'd 0.425mm: (A) = Assumed, (M) = Measured



TEST REPORT

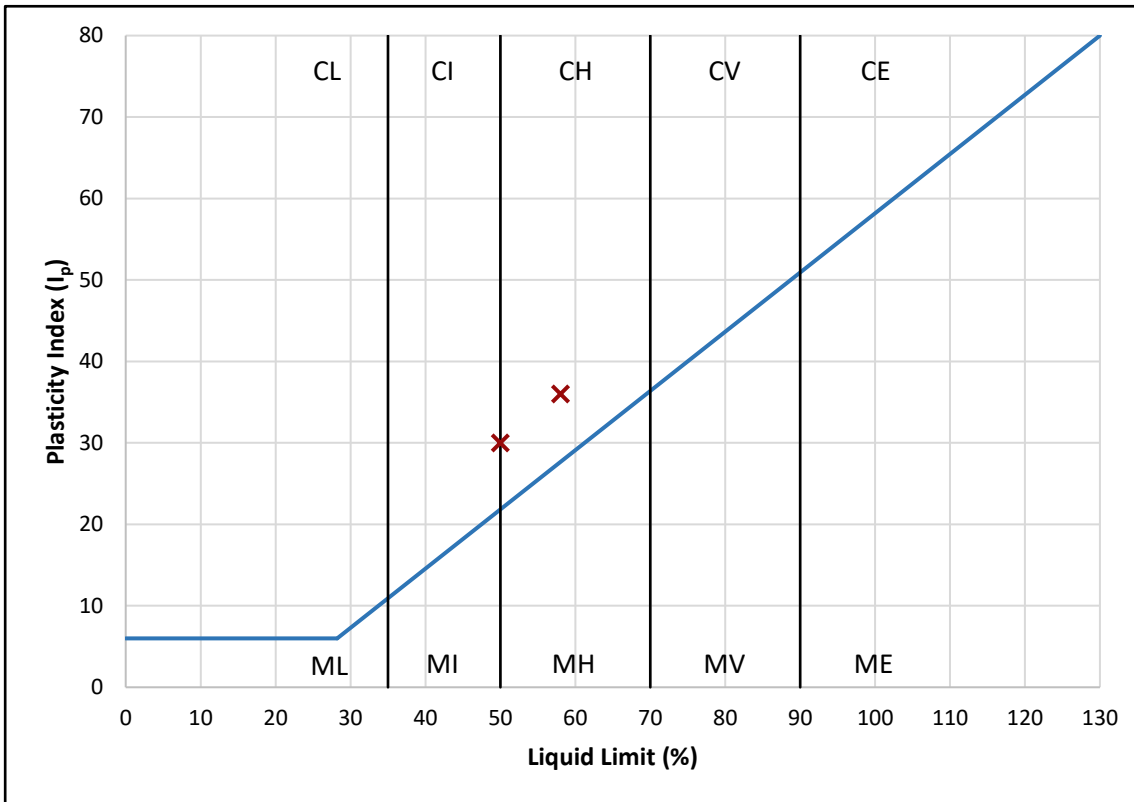
ISSUED BY SOIL PROPERTY TESTING LTD
DATE ISSUED: 02/10/2023



Contract	UK23.6614 Uppingham
Serial No.	43335_1

PLOT OF PLASTICITY INDEX AGAINST LIQUID LIMIT USING CASAGRANDE CLASSIFICATION CHART

Plasticity				
Low	Medium	High	Very High	Extremely High



High	NHBC Volume Change Potential
Medium	
Low	

Plasticity Chart BS5930: 2015: Figure 8

Method of Preparation:	BS 1377: Part 2: 1990: 4.2
Method of Test:	BS1377: Part 2: 3.2, 4.4, 5.3, 5.4
Type of Sample Key:	U = Undisturbed, B = Bulk, D = Disturbed, J = Jar, W = Water, SPT = Split Spoon Sample, C = Core Cutter
Comments:	Volume Change Potential: NHBC Standards Chapter 4.2 Unmodified Plasticity Index



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DATE ISSUED: 02/10/2023

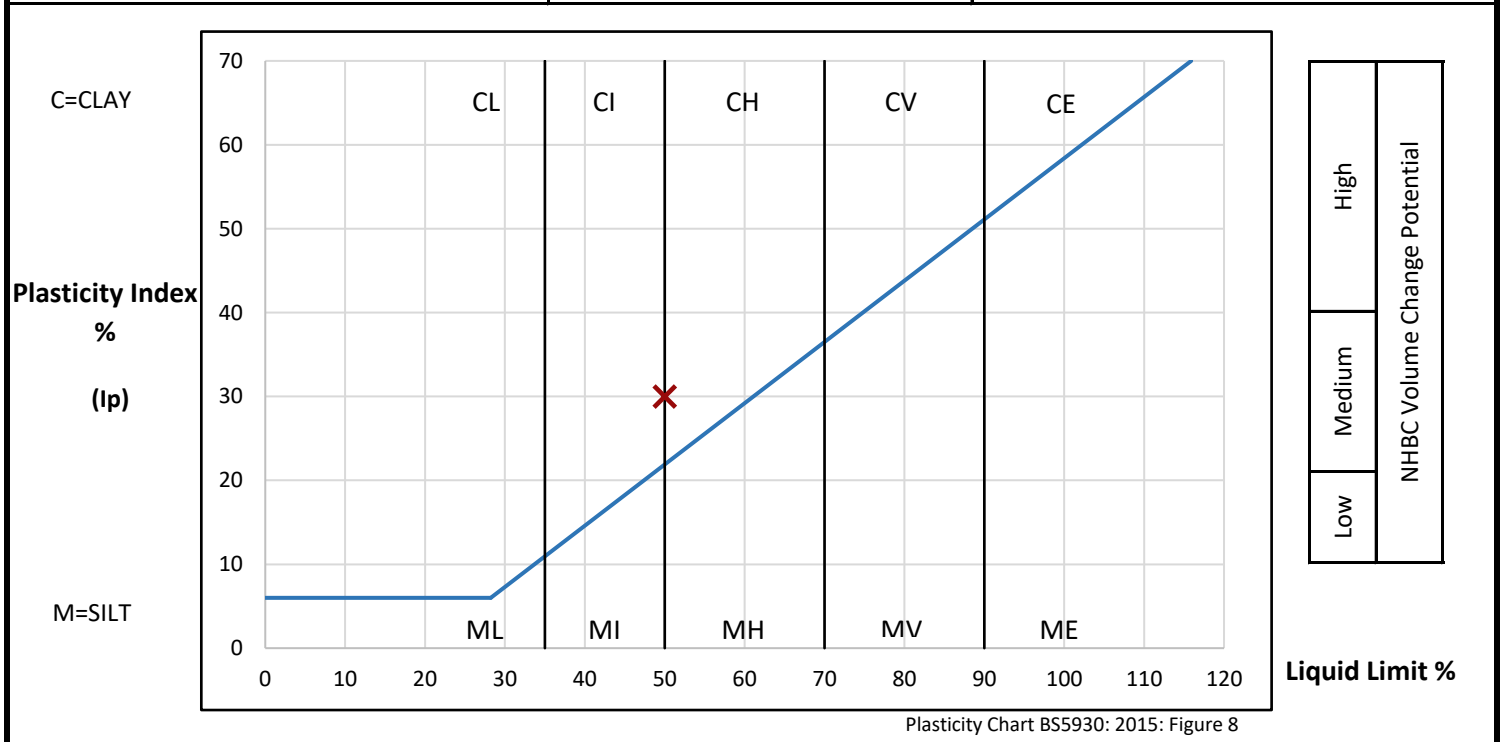


Contract	UK23.6614 Uppingham
Serial No.	43335_1

DETERMINATION OF WATER CONTENT, LIQUID LIMIT AND PLASTIC LIMIT AND DERIVATION OF PLASTICITY INDEX AND LIQUIDITY INDEX

Borehole / Pit No.	Depth m	Sample		Water Content (W) %	Description	Remarks
		Type	Reference			
BH1	8.00	D	7	16.7	Very stiff mottled dark greyish brown and dark grey CLAY	

PREPARATION			Liquid Limit	50 %	
Method of preparation		From natural	Plastic Limit	20 %	
Sample retained 0.425mm sieve	(Assumed)	0 %	Plasticity Index	30 %	
Corrected water content for material passing 0.425mm			Liquidity Index	-0.11	
Sample retained 2mm sieve	(Assumed)	0 %	NHBC Modified (I'p)	n/a	
Curing time	25 hrs	Clay Content	Not analysed	Derived Activity	Not analysed



Method of Preparation: BS EN ISO: 17892-1: 2014 & BS 1377: Part 2: 1990: 4.2
 Method of Test: BS EN ISO: 17892-1: 2014 & BS 1377: Part 2: 1990: 3.2, 4.4, 5.3, 5.4
 Type of Sample Key: U=Undisturbed, B=Bulk, D=Disturbed, J=Jar, W=Water, SPT=Split Spoon Sample, C=Core Cutter
 Comments:



TEST REPORT

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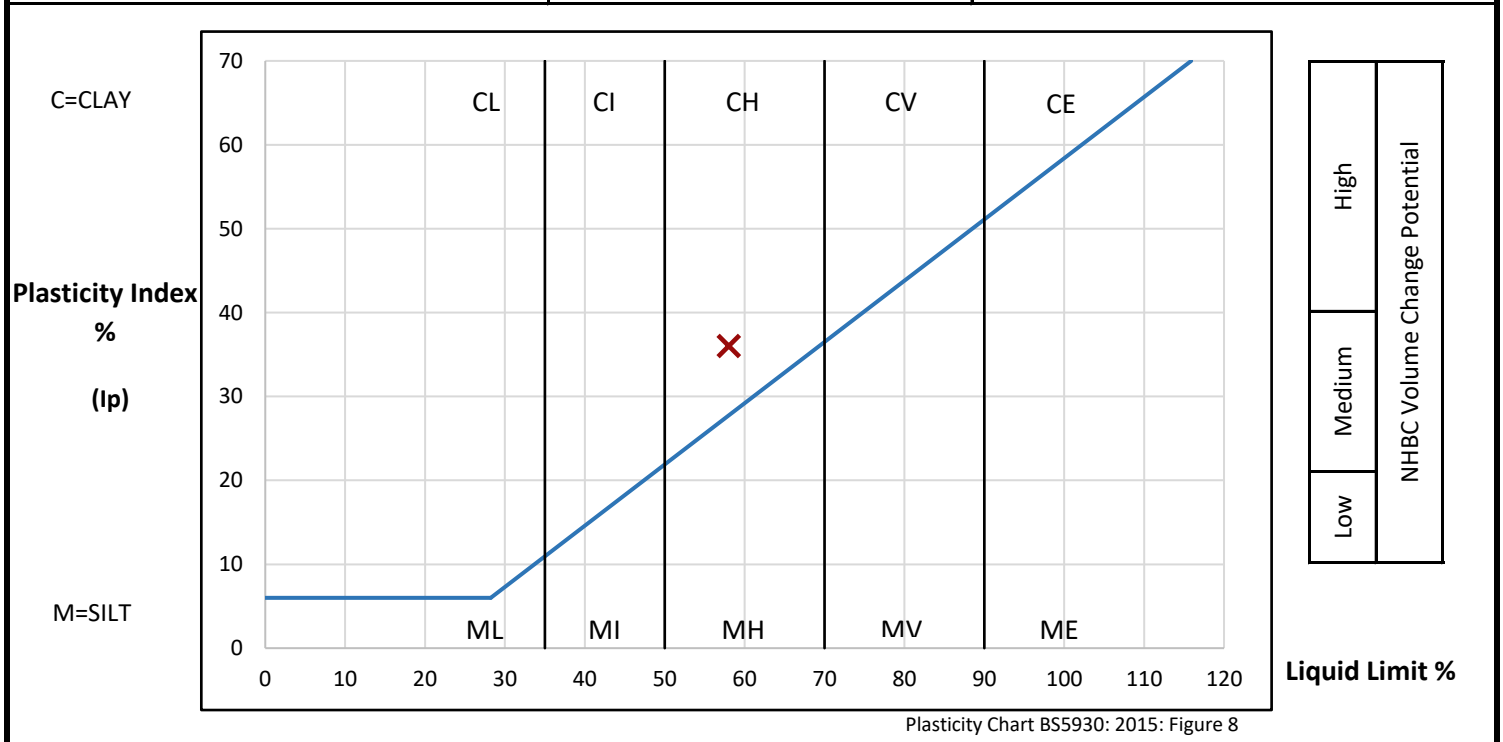


Contract	UK23.6614 Uppingham
Serial No.	43335_1

DETERMINATION OF WATER CONTENT, LIQUID LIMIT AND PLASTIC LIMIT AND DERIVATION OF PLASTICITY INDEX AND LIQUIDITY INDEX

Borehole / Pit No.	Depth m	Sample		Water Content (W) %	Description	Remarks
		Type	Reference			
BH1	14.00	D	14	17.2	Very stiff friable dark grey CLAY	

PREPARATION			Liquid Limit	58 %	
Method of preparation			From natural	Plastic Limit	22 %
Sample retained 0.425mm sieve	(Assumed)	0 %	Plasticity Index	36 %	
Corrected water content for material passing 0.425mm			Liquidity Index	-0.13	
Sample retained 2mm sieve	(Assumed)	0 %	NHBC Modified (I'p)	n/a	
Curing time	24 hrs	Clay Content	Not analysed	Derived Activity	Not analysed



Method of Preparation: BS EN ISO: 17892-1: 2014 & BS 1377: Part 2: 1990: 4.2
 Method of Test: BS EN ISO: 17892-1: 2014 & BS 1377: Part 2: 1990: 3.2, 4.4, 5.3, 5.4
 Type of Sample Key: U=Undisturbed, B=Bulk, D=Disturbed, J=Jar, W=Water, SPT=Split Spoon Sample, C=Core Cutter
 Comments:



TEST REPORT

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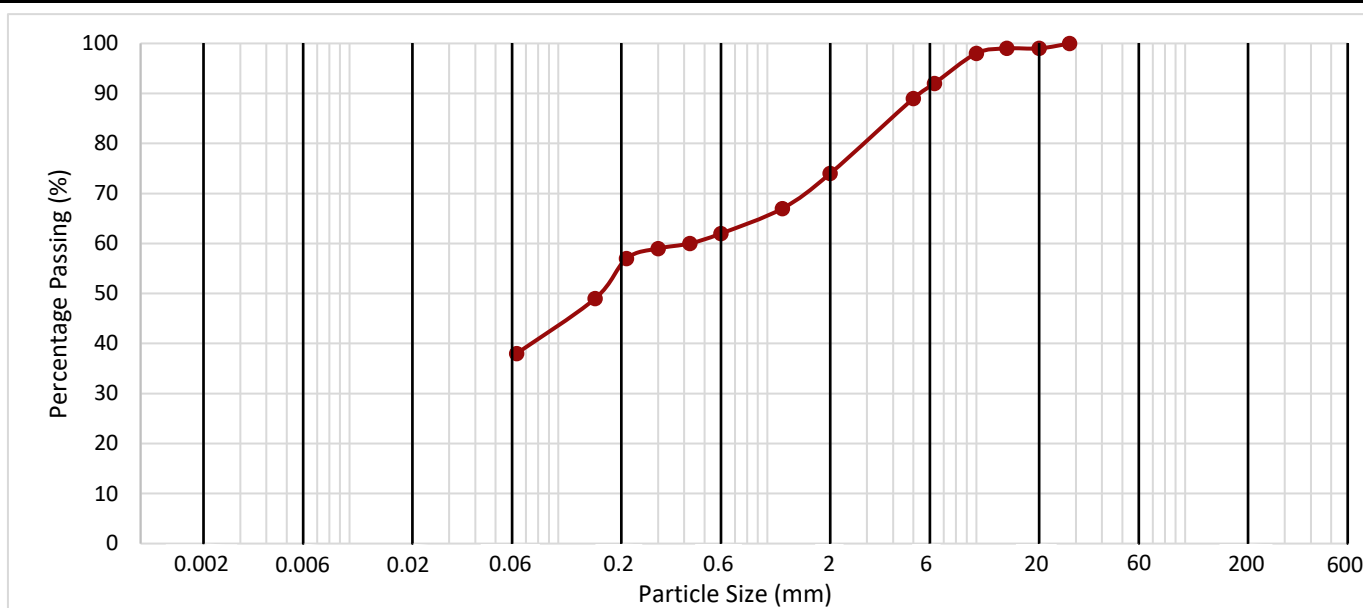


Contract	UK23.6614 Uppingham
Serial No.	43335_1

DETERMINATION OF PARTICLE SIZE DISTRIBUTION

Borehole / Pit No.	Depth (m)	Sample		Description	Remarks
		Type	Reference		
BH1	4.00	D	4	Dark orangish brown slightly gravelly sandy silty CLAY. Gravel is dark orangish brown ferruginous sandstone	

Method of Test: **Wet Sieve** Method of Pretreatment: **Not required**



CLAY	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	COBBLES	BOULDERS
	SILT			SAND			GRAVEL				

Hydrometer	Particle Size (mm)	Passing (%)	Silt by Dry Mass (%)	

		Clay by Dry Mass (%)

Sieve Size (mm)	Passing (%)	Sand By Dry Mass (%)
2.00	74	36
1.18	67	
0.600	62	
0.425	60	
0.300	59	
0.212	57	
0.150	49	
0.063	38	

Sieve Size (mm)	Passing (%)	2mm+ By Dry Mass (%)
300		26
125		
90		
63		
50		
37.5		
28	100	
20	99	
14	99	
10	98	
6.3	92	
5	89	

Fines By Dry Mass (%)	
<0.063mm	38

Method of Preparation: BS1377: Part 1: 2016: 8.3 & 8.4.5
 Method of test: BS1377: Part 2: 1990: 9.2
 Type of Sample Key: U=Undisturbed, B=Bulk, D=Disturbed, J=Jar, W=Water, SPT=Split Spoon Sample, C=Core Cutter
 Comments:



TEST REPORT

ISSUED BY SOIL PROPERTY TESTING LTD
DATE ISSUED: 02/10/2023

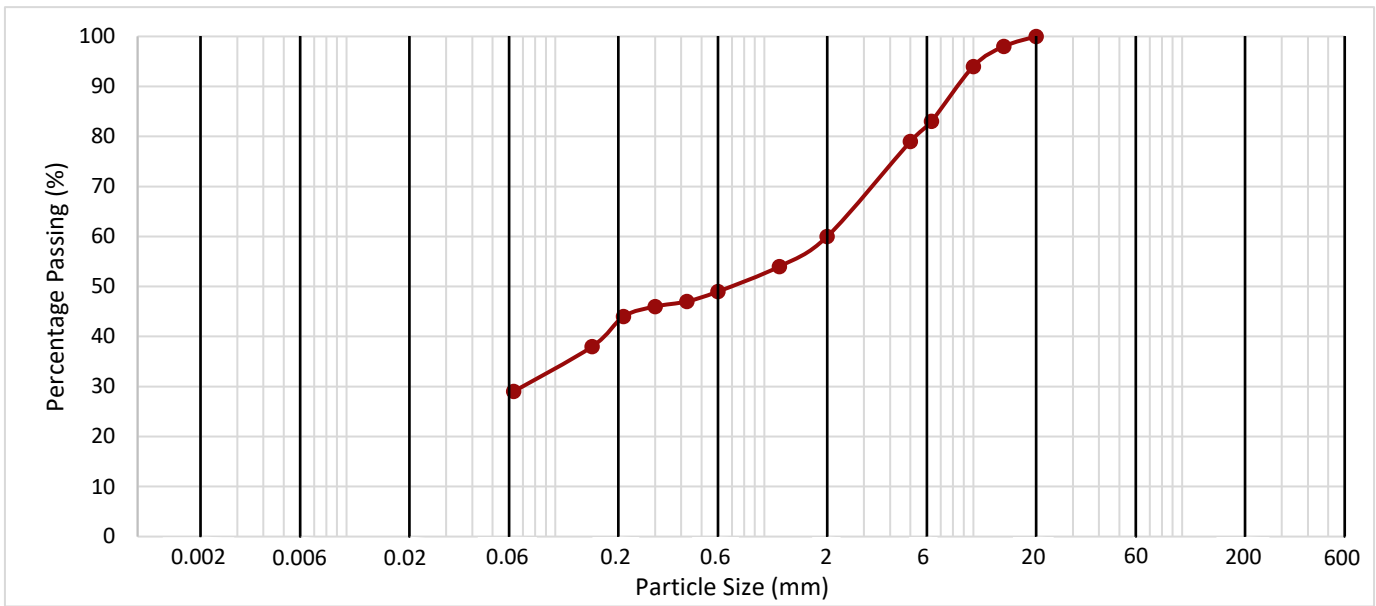


Contract	UK23.6614 Uppingham
Serial No.	43335_1

DETERMINATION OF PARTICLE SIZE DISTRIBUTION

Borehole / Pit No.	Depth (m)	Sample		Description	Remarks
		Type	Reference		
WS01	3.80 - 4.00	D	2	Dark orangish brown ferruginous sandstone GRAVEL in a dark orangish brown sandy silty clay matrix	

Method of Test: **Wet Sieve** Method of Pretreatment: **Not required**



CLAY	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	COBBLES	BOULDERS
	SILT			SAND			GRAVEL				

Hydrometer	Particle Size (mm)	Passing (%)	Silt by Dry Mass (%)	

		Clay by Dry Mass (%)

Sieve Size (mm)	Passing (%)	Sand By Dry Mass (%)
2.00	60	31
1.18	54	
0.600	49	
0.425	47	
0.300	46	
0.212	44	
0.150	38	
0.063	29	

Sieve Size (mm)	Passing (%)	2mm+ By Dry Mass (%)
300		40
125		
90		
63		
50		
37.5		
28		
20	100	
14	98	
10	94	
6.3	83	
5	79	

Fines By Dry Mass (%)	
<0.063mm	29

Method of Preparation: BS1377: Part 1: 2016: 8.3 & 8.4.5
 Method of test: BS1377: Part 2: 1990: 9.2
 Type of Sample Key: U=Undisturbed, B=Bulk, D=Disturbed, J=Jar, W=Water, SPT=Split Spoon Sample, C=Core Cutter
 Comments:



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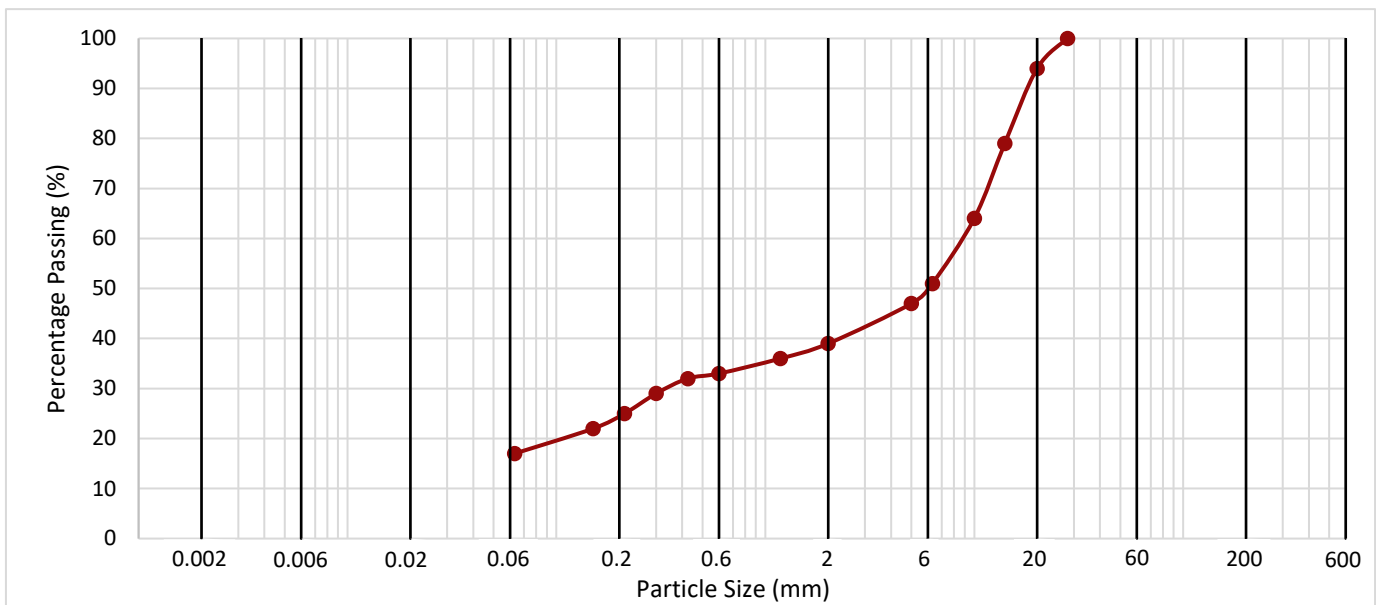


Contract	UK23.6614 Uppingham
Serial No.	43335_1

DETERMINATION OF PARTICLE SIZE DISTRIBUTION

Borehole / Pit No.	Depth (m)	Sample		Description	Remarks
		Type	Reference		
WS02	0.80 - 1.00	D	1	Dark orangish brown ferruginous sandstone GRAVEL in a dark orangish brown sandy silty clay matrix	

Method of Test: **Wet Sieve** Method of Pretreatment: **Not required**



CLAY	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	COBBLES	BOULDERS
	SILT			SAND			GRAVEL				

Hydrometer	Particle Size (mm)	Passing (%)	Silt by Dry Mass (%)	

		Clay by Dry Mass (%)

Sieve Size (mm)	Passing (%)	Sand By Dry Mass (%)
2.00	39	22
1.18	36	
0.600	33	
0.425	32	
0.300	29	
0.212	25	
0.150	22	
0.063	17	

Sieve Size (mm)	Passing (%)	2mm+ By Dry Mass (%)
300		61
125		
90		
63		
50		
37.5		
28	100	
20	94	
14	79	
10	64	
6.3	51	
5	47	

Fines By Dry Mass (%)	
<0.063mm	17

Method of Preparation: BS1377: Part 1: 2016: 8.3 & 8.4.5
 Method of test: BS1377: Part 2: 1990: 9.2
 Type of Sample Key: U=Undisturbed, B=Bulk, D=Disturbed, J=Jar, W=Water, SPT=Split Spoon Sample, C=Core Cutter
 Comments:



TEST REPORT

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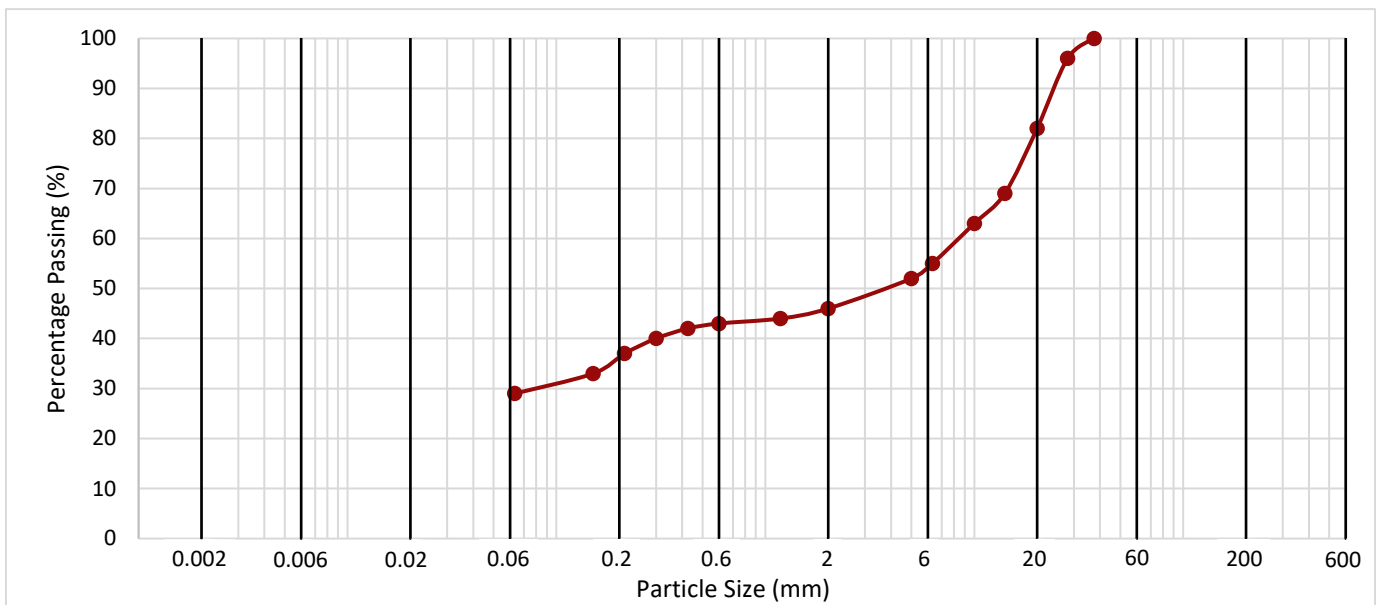


Contract	UK23.6614 Uppingham
Serial No.	43335_1

DETERMINATION OF PARTICLE SIZE DISTRIBUTION

Borehole / Pit No.	Depth (m)	Sample		Description	Remarks
		Type	Reference		
WS03	1.80 - 2.00	D	2	Dark orangish brown ferruginous sandstone GRAVEL in a dark orangish brown sandy silty clay matrix	Dry mass of sample required 2kg. Mass of sample submitted 0.903kg. Sample Unrepresentative BS1377:Part 2:1990 Table 3.

Method of Test: **Wet Sieve** Method of Pretreatment: **Not required**



CLAY	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	COBBLES	BOULDERS
	SILT			SAND			GRAVEL				

Hydrometer	Particle Size (mm)	Passing (%)	Silt by Dry Mass (%)	

		Clay by Dry Mass (%)

Sieve Size (mm)	Passing (%)	Sand By Dry Mass (%)
2.00	46	17
1.18	44	
0.600	43	
0.425	42	
0.300	40	
0.212	37	
0.150	33	
0.063	29	

Sieve Size (mm)	Passing (%)	2mm+ By Dry Mass (%)
300		54
125		
90		
63		
50		
37.5	100	
28	96	
20	82	
14	69	
10	63	
6.3	55	
5	52	

Fines By Dry Mass (%)	
<0.063mm	29

Method of Preparation: BS1377: Part 1: 2016: 8.3 & 8.4.5
 Method of test: BS1377: Part 2: 1990: 9.2
 Type of Sample Key: U=Undisturbed, B=Bulk, D=Disturbed, J=Jar, W=Water, SPT=Split Spoon Sample, C=Core Cutter
 Comments:



TEST REPORT

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DATE ISSUED: 02/10/2023



Contract	UK23.6614 Uppingham
Serial No.	43335_1

DETERMINATION OF DENSITY AND WATER CONTENT

Borehole /Pit No.	Depth (m)	Sample		Water Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Description	Remarks
		Type	Reference					
BH1	9.5	B	5	16.5	2.14	1.84	Very stiff fissured dark grey CLAY	
BH1	14.5	B	6	15.8	1.98	1.71	Very stiff fissured dark grey CLAY	
WS03	2.00 - 3.00	B	1	40.1	1.95	1.39	Firm yellowish brown slightly gravelly slightly sandy silty CLAY. Gravel is fine and medium angular to subangular ferruginous sandstone/ironstone	

Method of Preparation:

Method of Test: BS EN ISO 17892-1: 2014 & BS EN ISO 17892-2: 2014

Type of Sample Key: U = Undisturbed, B = Bulk, D = Disturbed, J - Jar, W = Water, SPT = Split Spoon Sample, C = Core Cutter

Comments:

Remarks to Include: Sample disturbance, loss of moisture, variation from test procedure, location and origin of test specimen within original sample. Oven drying temperature if not 105-110°C.



TEST REPORT

ISSUED BY SOIL PROPERTY TESTING LTD
DATE ISSUED: 02/10/2023

Contract:	UK23.6614 Uppingham
Serial No:	43335_1

DETERMINATION OF THE SULPHATE CONTENT AND pH OF SOIL AND GROUNDWATER

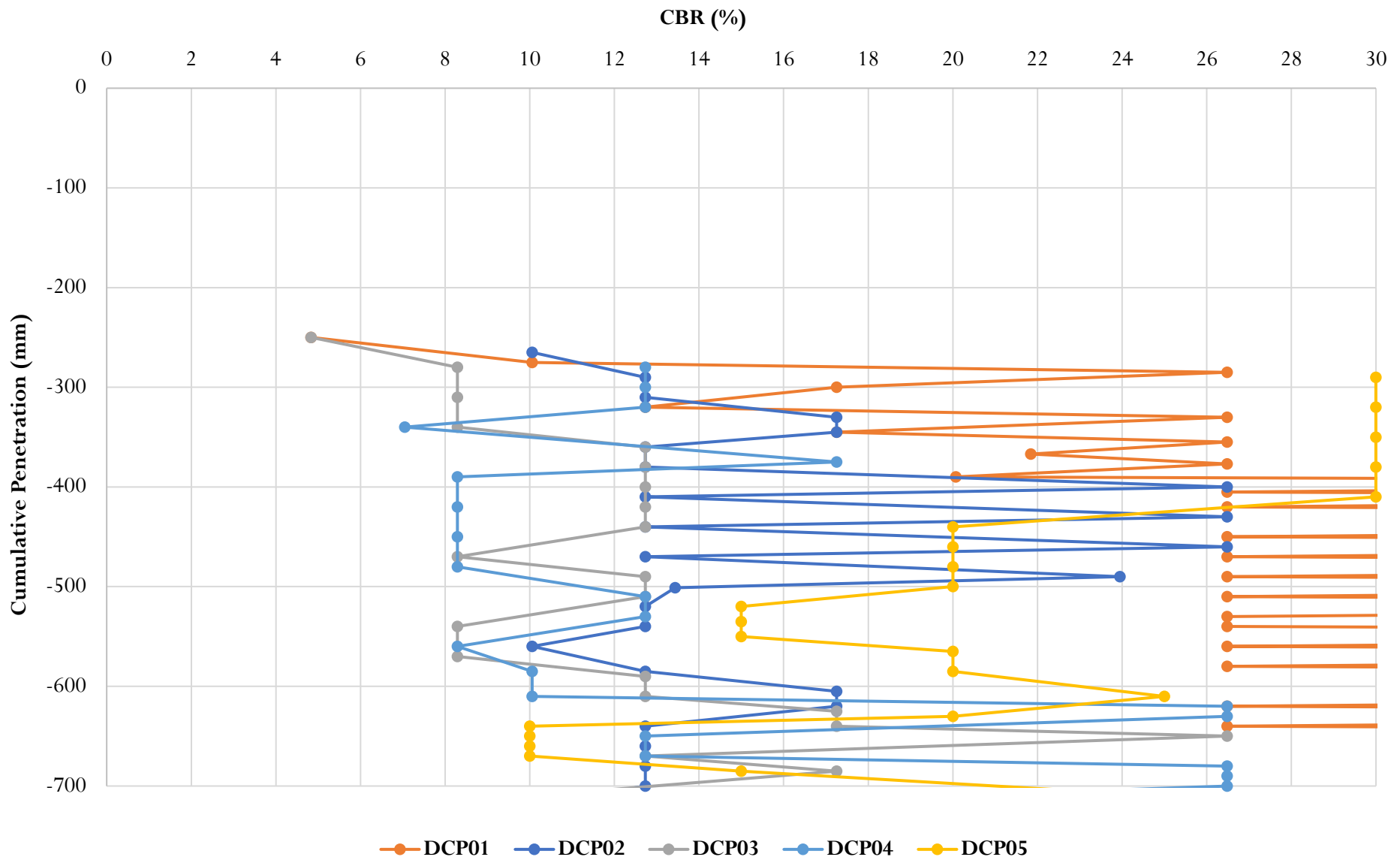
Borehole / Pit No.	Depth (m)	Sample		Conc. of Soluble SO ₃		Calc'd Conc. Of SO ₄ (g/L)	pH Value	% Sample Passing 2mm Sieve	Description	Remarks
		Type	Ref.	Water Soluble 2:1 (g/L)	Ground Water (g/L)					
BH1	4.00	D	4	0.04		0.05	6.5	74	Dark orangish brown slightly gravelly sandy silty CLAY. Gravel is dark orangish brown ferruginous sandstone	
WS01	3.80 - 4.00	D	2	0.07		0.08	6.5	60	Dark orangish brown ferruginous sandstone GRAVEL in a dark orangish brown sandy silty clay matrix	
WS02	0.80 - 1.00	D	1	0.06		0.07	6.9	39	Dark orangish brown ferruginous sandstone GRAVEL in a dark orangish brown sandy silty clay matrix	
WS03	1.80 - 2.00	D	2	0.06		0.08	6.4	46	Dark orangish brown ferruginous sandstone GRAVEL in a dark orangish brown sandy silty clay matrix	

Method of Preparation: BS1377: Part 1: 2016: 8.5, BS1377: Part 3: 1990: 5.3 Soil/Water Extract, 5.4 Groundwater
 Method of Test: BS1377: Part 3: 1990: 5.5
 Type of Sample Key: U= Undisturbed, B= Bulk, D= Disturbed, J= Jar, W= Water, SPT= Split Spoon Sample, C= Core Cutter
 Comments: **Test not UKAS accredited**
 Remarks to Include: Sample disturbance, loss of moisture, variation from test procedure, location, and origin of test specimen within original sample. Oven drying temperature if not 105-110C.



APPENDIX K

Dynamic Cone Penetrometer (DCP) Test Results





APPENDIX L

Summary of Screening Criteria

EPS Generic Quantitative Risk Assessment - Residential Land Use

Contaminant	Soil Targets			Groundwater Targets		
	Human Health	Controlled Waters		Human Health	Controlled Waters	
		Surface Water	Groundwater		Surface Water	Groundwater
Unit		mg/kg			µg/l	
Arsenic	See C4SL	n/c	n/c	n/c	50	10
Cadmium	See C4SL	n/c	n/c	n/c	2.5#	5
Chromium III	910	n/c	n/c	n/c	4.7	50
Chromium VI	See C4SL	n/c	n/c	n/c	3.4	
Copper	2400	n/c	n/c	n/c	93.1#	2000
Mercury (elemental)	1.2	0.085	1.22	1.1	1	1
Nickel	180	n/c	n/c	n/c	14.8#	20
Lead	See C4SL	n/c	n/c	n/c	27.7#	10
Selenium	250	n/c	n/c	n/c	10	10
Zinc	3700	n/c	n/c	n/c	373#	3000
Benzene	See C4SL	0.064	0.0064	210	10	1
Toluene	130	1.33	12.6	230,000	74	700
Ethylbenzene	47	0.77	11.5	10,000	20	300
Xylene (para)	56	1.18	19.6	9,900	30	500
MTBE#	49	4.41	0.026	83,000	2600	15
Benzo(a)Pyrene	See C4SL	n/c	n/c	n/c	0.005 (0.00017)	0.01
Naphthalene	2.3	0.11	0.11	220	2	2
Aliphatic C5-C6	42	4.06	0.81	1,900	50	10
Aliphatic C6-C8	100	17.8	3.57	1,500	50	10
Aliphatic C8-C10	27	n/c	n/c	57	50	10
Aliphatic C10-C12	130(48)*	n/c	n/c	37	50	10
Aliphatic C12-C16	1100(8.48)**	n/c	n/c	n/c	50	10
Aliphatic C16-C35	65000 (8.48)**	n/c	n/c	n/c	50	10
Aromatic C8-C10	34	6.71	1.34	1,900	50	10
Aromatic C10-C12	74	10.6	2.13	6,800	50	10
Aromatic C12-C16	140	21.2	4.23	39,000	50	10
Aromatic C16-C21	260	n/c	n/c	n/c	50	10
Aromatic C21-C35	1100	n/c	n/c	n/c	50	10
Tetrachloroethene	See C4SL	0.24	0.24	34	10	10
Trichloroethene	See C4SL	0.13	0.13	5.7	10	10
cis-1,2 Dichloroethene		0.21	0.21	130	50	50
Vinyl Chloride	See C4SL	0.0012	0.0012	0.62	0.5	0.5

Notes:

f = Oral, dermal and inhalation exposure compared with oral HCV N/C = Not Calculated

* = S4UL exceeds vapour saturation limit (in brackets)

** = S4UL exceeds solubility saturation limit (in brackets)

n/c = not calculated. Under normal conditions contaminant exhibits low solubility /volatility, therefore risks from leaching and/or vapour pathways are considered low.

To establish suitable compliance criteria for Surface Water review of baseline groundwater quality in England and Wales was completed following research reported in Shand, P, Edmunds, W M, Lawrence, A R, Smedley, P L, and Burke, S, 2007. The natural (baseline) quality of groundwater in England and Wales. British Geological Survey Research Report No. RR/07/06. Where compliance criteria was found below the 97.7 percentile of baseline value, the latter was adopted as GAC.

Soil Targets

Targets for Human Health have been taken from S4ULs 'Suitable For Use Levels for Human Health Risk Assessment' – LQM and CIEH (2014) derived using standard sandy loam soil with 1% SOM, except (#) = EIC/AGS/CL/AIRE GAC 'Soil Generic Assessment Criteria' (2010). For sites where ground conditions differ significantly from sandy loam or site-specific SOM and pH are available, the generic human health targets may be revised.

Targets for Controlled waters have been derived using EA Remedial Targets Worksheet (v3.1) - using standard Sandy Loam ground conditions as described in Science Report SC050021/SR3, assuming no degradation for a 10m compliance distance with criteria of EQS or UKDWS for Surface Water and Groundwater respectively (see notes for GW targets).

Groundwater Targets

For Surface Water, targets have been taken as Freshwater EQS where available. For MTBE Predicted No Effect Concentration (European Risk Assessment Report, 2002) was used. For individual TPH fractions, in absence of UK EQS, a 5 times multiplier of UKDWS has been taken.

For Groundwater, targets have been taken as UKDWS where available. In the absence of UK targets internationally recognised criteria were adopted. For MTBE, WHO taste threshold has been adopted.

Targets for Human Health have been taken from Society of Brownfield Risk Assessment (SoBRA) 'Development of Generic Assessment Criteria for Assessing Vapour Risks to Human Health from Volatile Contaminants in Groundwater' - Version 1.0, February 2017, derived using sandy soil and 1%SOM. GAC were set up assuming source at 50cm below typical ground bearing slab of 15cm thickness. GAC were derived for vapour pathways only. For sites where ground conditions, or differ significantly from described above, the generic human health targets may be revised.



EPS Generic Quantitative Risk Assessment

Generic Screening Criteria (C4SLs) - All Land Uses

Contaminant	Soil Targets					
	Residential		Allotments	Commercial	Public Open Spaces	
	With Home Grown Produce	Without Home Grown Produce			Residential	Parks
Unit	mg/kg					
Arsenic	37	40	49	640	79	168
Benzene	0.87	3.3	0.18	98	140	230
Benzo(a)pyrene	5	5.3	5.7	76	10	21
Cadmium	26	149	4.9	410	220	880
Chromium (VI)	21	21	170	49	23	250
Lead	200	310	80	2330	630	1300
Chloroethene (Vinyl Chloride)	0.017	0.029	0.0058	2.2	7.8	19
Trichloroethene (TCE)	0.043	0.045	0.16	3.4	79	69
Tetrachloroethene (PCE)	1.6	1.6	11	130	3400	2500

Notes:

Targets for Human Health have been taken from the publicly available Category 4 Screening Levels (C4SLs) for assessment of land affected by contamination issued by DEFRA/CL:AIRE in December 2013 and May 2021.

Within the modelling for C4SLs, a Soil Organic Matter content of 6% has been used. Reference to site-specific data should be made where possible.

The C4SLs for the contaminant benzene along with the three chlorinated solvents are the most susceptible to changes in SOM.

May-23

APPENDIX M

Method Statement for Encountering Unexpected Contamination



METHOD STATEMENT

ACTIONS TO BE TAKEN IN THE EVENT OF DISCOVERING UNEXPECTED CONTAMINATION DURING INTRUSIVE GROUNDWORKS

If at any point during intrusive groundworks at a site, evidence of unforeseen contamination is encountered in the form of significant noxious odours, discolouration, or instability within soils or sheen/ discolouration in groundwater, the following actions will be taken:

- Intrusive works in the immediate area of the impacted ground will be suspended and the continuation of work in other areas of the site will be considered within the context of the site specific health & safety plan.
- Environmental Protection Strategies Ltd (EPS) will be contacted and appraised of the situation so that arrangements can be made to characterise the impact and determine what action may be necessary in addition to the scheduled site works. Where possible / health & safety plan permits, digital photographs of the impacted ground will be taken and emailed to EPS at the address below to assist in the initial assessment
- It may well be necessary for EPS to attend site to undertake visual inspection and obtain samples for field and/or laboratory analysis, although the actions taken will be dependent on the nature of what is encountered
- In cases where EPS consider the unforeseen contamination likely to pose a significant risk of significant harm to adjacent site users or local environmental receptors, the local authority and the Environment Agency will be informed of the situation and the actions being taken
- Once appropriate action has been agreed and undertaken, a written summary will be produced by EPS for submission to the Local Authority, (and where relevant, the Environment Agency) in accordance with planning requirements. The submission will include details of work undertaken, analytical results of investigative and validation samples obtained and conclusions and recommendations for any further actions considered necessary
- Where regulatory bodies have been involved, site works should only recommence following their agreement and in all cases should only recommence when the site manager considers it safe to do so within the context of the site specific health & safety plan.

EPS Contact Details:

Marcus Bell	Associate Director	Tel: 0787 206 9979
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APPENDIX C - DRAINAGE RECORDS AND CCTV SURVEY



NOTES

GENERAL NOTES :-
 CCTV DRAINAGE SURVEY HAS BEEN PLOTTED ONTO A THIRD PARTY DRAWING, THEREFORE MIDLAND SURVEY ACCEPTS NO RESPONSIBILITY FOR THE ACCURACY OF THIS DRAWING.
 THIS DRAWING HAS BEEN PRODUCED WITH A PLOT SCALE ACCURACY OF 1:200
 SERVICE COVERS INDICATED WHERE VISIBLE. RPE INVERTS / DETAILS SURVEYED FROM SURFACE INSPECTION ONLY. GENERALLY DAMAGED COVERS AND COVERS WITHIN HIGHWAYS WILL NOT BE LIFTED. TREE SPECIES SHOULD BE CONFIRMED BY TREE SPECIALIST IF CRITICAL.
 OVERHEAD CABLES ARE INDICATED USING REMOTE SURVEY METHODS AND ARE SUBJECT TO SEASONAL VARIATION, AND SHOULD BE TREATED AS APPROXIMATE.
 THE SURVEYOR WILL NOT BE RESPONSIBLE FOR THE OMISSION OF DETAILS OBSERVED DURING SITE SURVEY.
 RICS PROFESSIONAL STANDARDS 3RD EDITION RULE 1.19 APPLIES TO THIS SURVEY.

TOPOGRAPHICAL SURVEY/UTILITY KEY :-

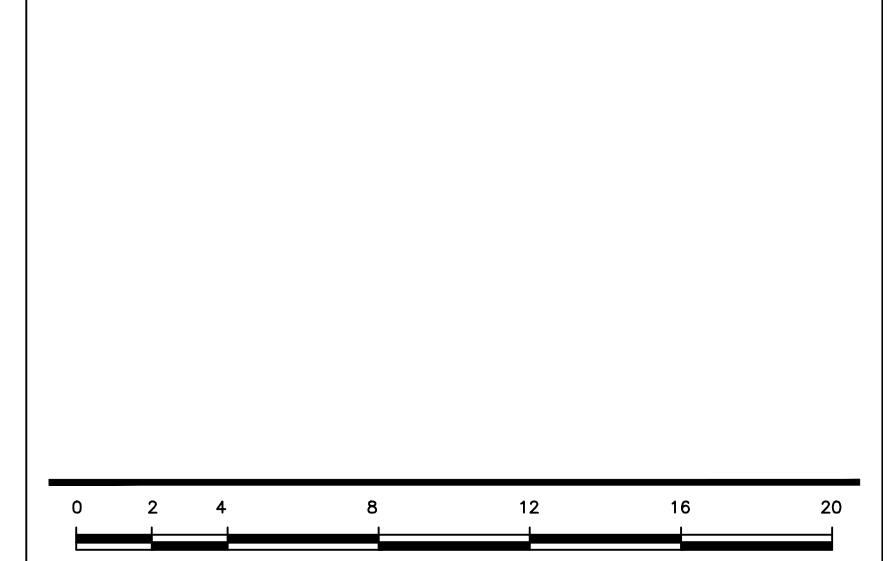
(h) = height	off = off set	off = off survey area
dia = diameter	OSM = Ordnance Survey bench mark	g & r fence = post & rail fence
a/g = above ground	pd = pit depth	gr = pipe riser
a/f = assumed route	pv = air valve	ptg = pipe to ground
av = air valve	bd = back drop	pp = pipe to surface
bl = bed level	ba = bottom of short	re = road sign
bol = bollard	bof = bottom of fence	ret wall = retaining wall
bot = bottom of short	c/f = closeboard fence	rs = rain water pipe
c/f = closeboard fence	c/b = control box	r/s/b = silver birch
cob = cobble	cobv = cobble television	s/p = safety paving
con = control	con = control	sp = stepping
cr = cobble riser	con = control	sec fence = security fence
aw = combined water sewer	at = stop tap	stc = storm water chamber
c/c = drainage channel	st = stop tap	st = stop tap
eb = electric junction box	sv = soil vent pipe	st = stop tap
ep = electric pole	sw = storm water sewer	u/s = underdrain
er = earth rod	u/s = storm water sewer	u/s = underdrain
f/bed = flower bed	u/s = storm water sewer	u/s = underdrain
fr = fire hydrant	u/s = storm water sewer	u/s = underdrain
fs = fire switch	u/s = storm water sewer	u/s = underdrain
fw = foul water sewer	u/s = storm water sewer	u/s = underdrain
g = gully	u/s = storm water sewer	u/s = underdrain
g/r = gas riser	u/s = storm water sewer	u/s = underdrain
h/cheatnut = horse chestnut	u/s = storm water sewer	u/s = underdrain
h/thorn = hawthorn	u/s = storm water sewer	u/s = underdrain
ic = inspection cover	u/s = storm water sewer	u/s = underdrain
il = invert level	u/s = storm water sewer	u/s = underdrain
il = illuminated	u/s = storm water sewer	u/s = underdrain
int = interceptor	u/s = storm water sewer	u/s = underdrain
ip = lamp post	u/s = storm water sewer	u/s = underdrain
m/c = manhole cover	u/s = storm water sewer	u/s = underdrain
mkr = marker	u/s = storm water sewer	u/s = underdrain
o/h = over head	u/s = storm water sewer	u/s = underdrain

UTILITY SURVEY KEY :-

	ELECTRIC CABLE
	WATER PIPE
	FOUL SEWER
	STORM SEWER
	COMBINED SEWER
	DUCTS
	CABLE TELEVISION
	DATA CABLE
	TELECOM CABLE
	GAS PIPE
	UNIDENTIFIED SERVICE
	OTHER
	CCTV
	TRAFFIC LIGHT
	OFFSET FILL
	VENT
	FUEL PIPE
	GAUGE LINES
	PIPE
	ASSUMED ROUTE
	TAKEN FROM RECORDS

DISCLAIMER :-
 Electromagnetic techniques have been used in the location of underground services. The results are not infallible and trial excavations should be carried out to confirm service identification, positions and particularly depths, where these are critical. The completeness of the underground services information cannot be guaranteed.
 This method of survey does not differentiate between live and dead services, and as such all services should be treated as live. This drawing may not include the location of all public services that may cross the site, therefore the relevant service drawings should be obtained from the appropriate utility company and used in conjunction with this drawing.
 Private service pipes and cables in highways are not shown, but their presence should be anticipated.
 Additional base ground structures or obstructions not shown on this drawing may be present. Reference should be made to historical plans and as-built drawings. Excavations in the vicinity of services should be carried out with due diligence. ref: HSG47 document avoiding dangers from underground services.
 Please note that factors such as ground conditions, proximity of other utilities, material and method of construction have an influence on the quality of the data collected on site.
 ISA Standards - "A utility mapping survey can be considered a 100% accurate depiction of the sub-surface environment" and be used of these drawings does not remove the requirement for the use of safe digging techniques at all times, in line with requirements of HSG47 and current CDM regulations".

UTILITY NOTES
 ALL INTERNAL DRAINAGE HAS BEEN PLOTTED ON USING CCTV CHANGE, THEREFORE POSITIONS SHOULD BE TREATED AS GUIDE ONLY.
 ALL BURIED MANHOLES HAVE BEEN PLOTTED ON USING CCTV CHANGE, THEREFORE POSITIONS SHOULD BE TREATED AS GUIDE ONLY.
 WHERE CCTV WORKS HAVE NOT BEEN POSSIBLE ASSUME ROUTES HAVE BEEN USED, THEREFORE THESE ROUTES SHOULD BE TREATED AS GUIDE ONLY.
 EXTENSIVE JETTING WORKS ARE REQUIRED TO ALLOW FURTHER SURVEY WORKS TO BE CARRIED OUT.



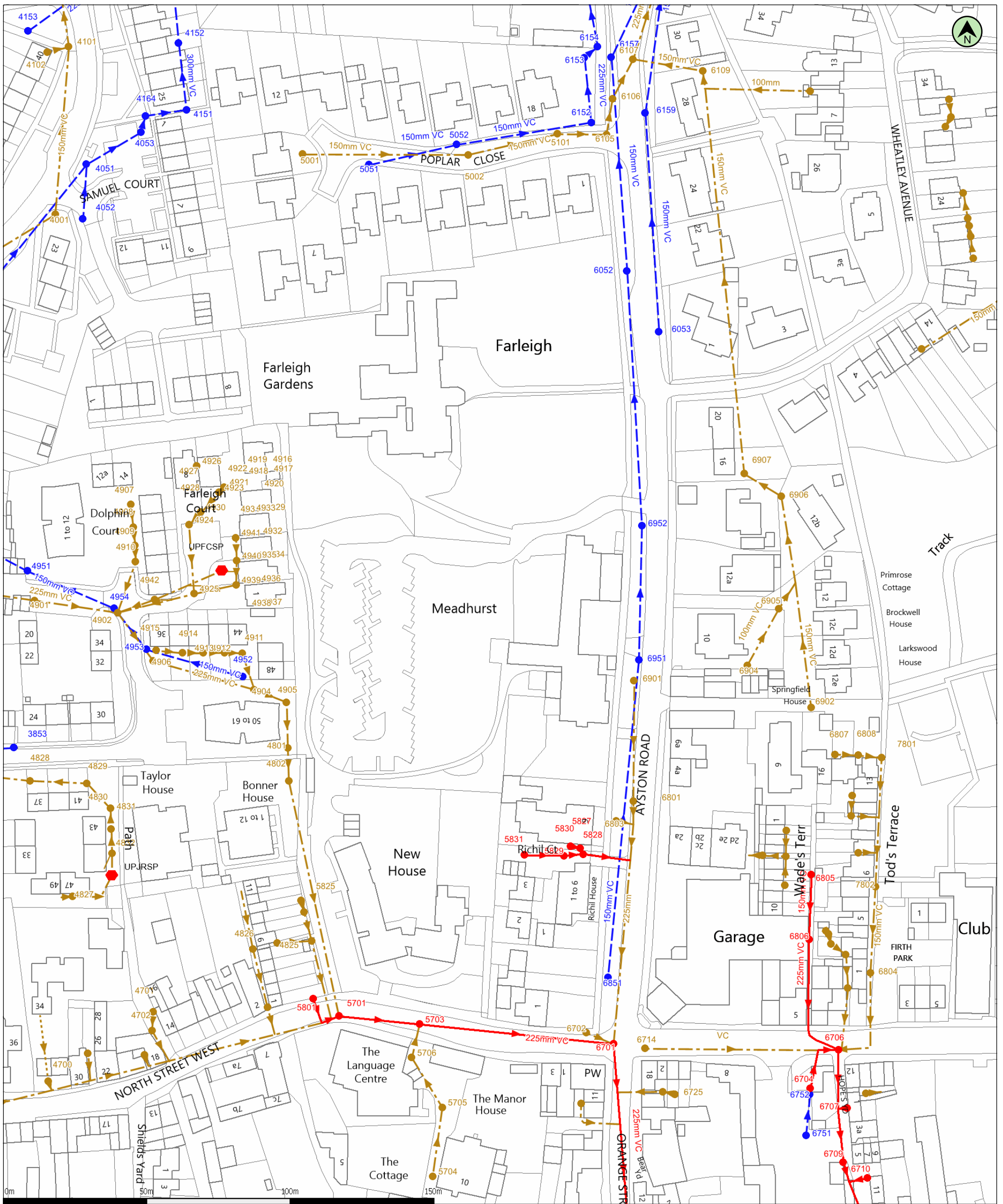
MIDLAND SURVEY LTD

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 Cromwell House, Westfield Road, Southam, Warwickshire, CV47 0JH.
 Tel: 01928 810811 Fax: 01928 810812
 E-Mail: midland@midlandsurvey.co.uk
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Client: SAWILLS (UK) LTD
 Project: MEADHURST, 11 AYSTON ROAD, UPPINGHAM, OAKHAM, LE15 9RL
 Title: CCTV DRAINAGE SURVEY
 Date: APRIL 2023
 Revisions:
 Scale: 1:200@A1
 Dwg No: 43594/1
 Surveyor: A.B
 Checked: R.P

**TOPOGRAPHICAL (LAND) SURVEYORS / UTILITY SURVEYORS
 BUILDING MEASUREMENT SURVEYORS / 3D LASER SCANNING**

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 Data updated: 31/01/23

Scale: 1:1250
 Map Centre: 486570,299936

Date: 03/02/23
 Our Ref: 1076431 - 2

Wastewater Plan A3
 Powered by digdat

Foul Sewer		Outfall*		Sewage Treatment Works	
Surface Sewer		Inlet*		Public Pumping Station	
Combined Sewer		Manhole*		Decommissioned Pumping Station	
Final Effluent					
Rising Main*					
Private Sewer*					
Decommissioned Sewer*					

*(Colour denotes effluent type)

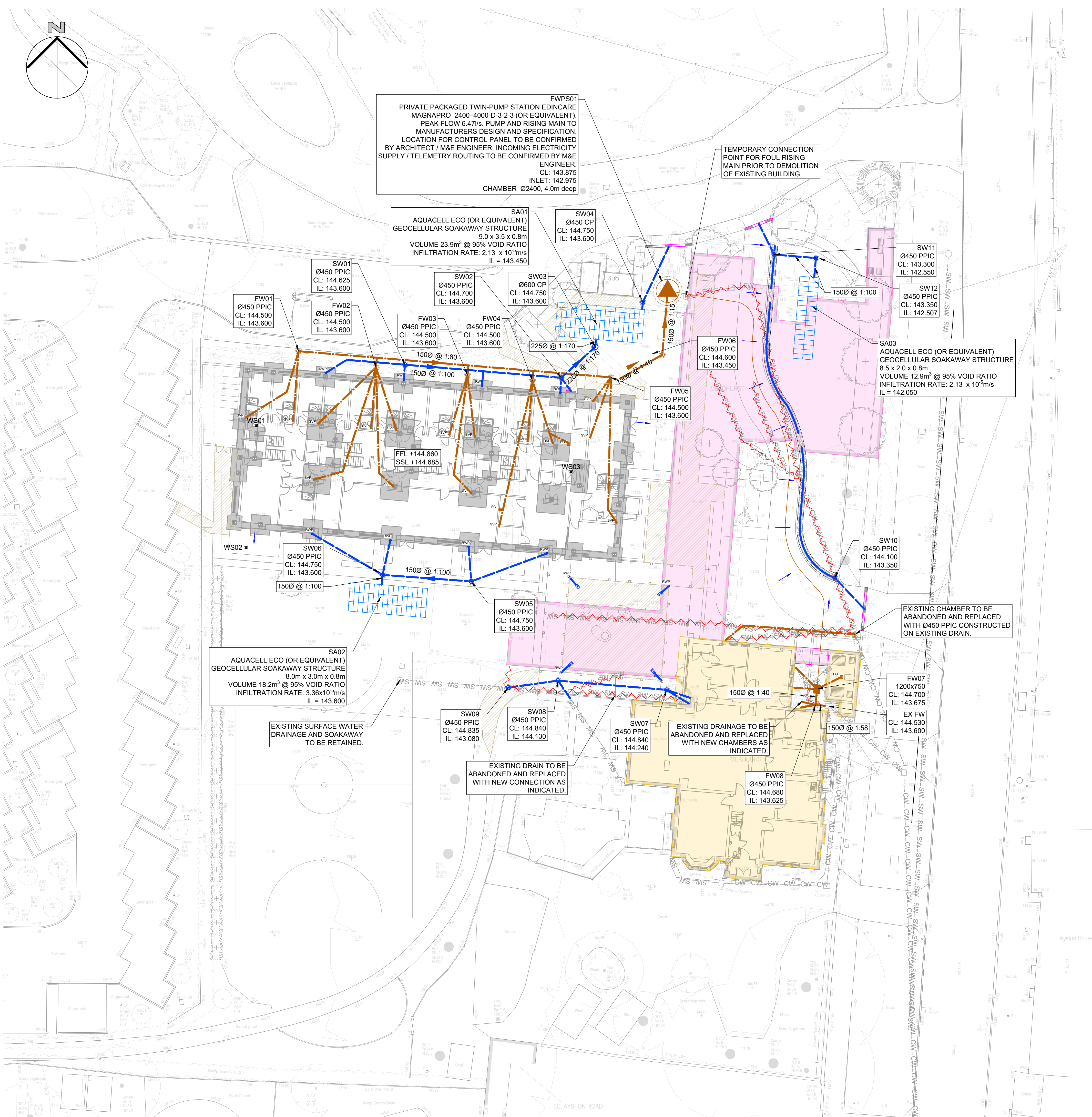
utilitiesitesearch@outlook.com

UPPINGHAM



This plan is provided by Anglian Water pursuant to its obligations under the Water Industry Act 1991 sections 198 or 199. It must be used in conjunction with any search results attached. The information on this plan is based on data currently recorded but position must be regarded as approximate. Service pipes, private sewers and drains are generally not shown. Users of this map are strongly advised to commission their own survey of the area shown on the plan before carrying out any works. The actual position of all apparatus MUST be established by trial holes. No liability whatsoever, including liability for negligence, is accepted by Anglian Water for any error or inaccuracy or omission, including the failure to accurately record, or record at all, the location of any water main, discharge pipe, sewer or disposal main or any item of apparatus. This information is valid for the date printed. This plan is produced by Anglian Water Services Limited (c) Crown copyright and database rights 2023 Ordnance Survey 100022432. This map is to be used for the purposes of viewing the location of Anglian Water plant only. Any other uses of the map data or further copies is not permitted. This notice is not intended to exclude or restrict liability for death or personal injury resulting from negligence.

APPENDIX D - DRAINAGE LAYOUT



- LEGEND**
- SITE BOUNDARY
 - EXISTING BUILDING TO BE DEMOLISHED
 - EXISTING BUILDING TO BE RETAINED
 - FW—FW EXISTING FOUL DRAIN
 - SW—SW EXISTING SURFACE WATER DRAIN
 - CW—CW EXISTING COMBINED DRAIN
 - ~ EXISTING DRAIN TO BE ABANDONED
 - PROPOSED FOUL DRAIN
 - PROPOSED FOUL MANHOLE / INSPECTION CHAMBER
 - STUB STACK / SOIL VENT PIPE
 - FLOOR GULLY
 - ▲ PROPOSED FOUL PUMPING STATION
 - PROPOSED SURFACE WATER DRAIN
 - PROPOSED SURFACE WATER MANHOLE / INSPECTION CHAMBER
 - RAIN WATER PIPE
 - FILTER DRAIN AND INFILTRATION TRENCH WITH PERFORATED PIPE
 - LINEAR DRAINAGE CHANNEL
 - POROUS NATRATX PAVING TO LANDSCAPE ARCHITECTS SPECIFICATION
 - GEOCELLULAR SOAKAWAY, AQUACELL ECO (OR EQUIVALENT)

- NOTES**
1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS, ENGINEERS AND SPECIALIST DRAWINGS AND SPECIFICATIONS
 2. DO NOT SCALE FROM THIS DRAWING IN EITHER PAPER OR DIGITAL FORM. USE WRITTEN DIMENSIONS ONLY.
 3. INVERT LEVELS AND POSITIONS OF EXISTING DRAINS / CHAMBERS / SEWERS WHERE NEW CONNECTIONS ARE TO BE MADE MUST BE CHECKED AND CONFIRMED TO THE ENGINEER PRIOR TO THE COMMENCEMENT OF ANY WORKS.
 4. ALL DRAINAGE SHALL COMPLY WITH THE TYPICAL DETAILS AND THE REQUIREMENTS OF BS EN 752 AND PART H OF THE BUILDING REGULATIONS.
 5. ANY PART OF THE EXISTING DRAINAGE SYSTEM TO BE RETAINED AS PART OF THE NEW SCHEME SHALL BE CLEANED AND INSPECTED. ANY STRUCTURAL DEFECTS SHALL BE REPAIRED USING APPROPRIATE AND APPROVED MEANS.
 6. FOR SETTING-OUT DIMENSIONS OF SVP'S, RWP'S ETC, REFER TO ARCHITECT'S OR MECHANICAL ENGINEER'S DRAWINGS. POSITIONS SHOWN ARE INDICATIVE AND SUBJECT TO FINAL DESIGN.
 7. ALL FOUL AND RWP CONNECTIONS SHALL BE 100mm DIAMETER UNLESS OTHERWISE SPECIFIED.
 8. ALL PRECAST CONCRETE UNITS USED IN THE DRAINAGE WORKS SHALL BE MANUFACTURED USING SULPHATE RESISTING CEMENT.
 9. MANHOLE COVERS AND FRAMES SHALL BE TO BS EN 124 AND SHALL BE KITEMARKED. COVERS AND FRAMES SHALL BE HEAVY DUTY D400 IN CARRIAGEWAYS AND VEHICULAR AREAS AND MEDIUM DUTY B125 IN FOOTWAYS AND SOFT LANDSCAPING. IN BLOCKED/CONCRETE PAVED AREAS COVERS SHALL BE RECESSED FABRICATED STEEL. ALL RECESSED COVERS SHALL IN ACCORDANCE WITH THE FACTA ASSOCIATION GRADINGS.
 10. COVER LEVELS ARE TO BE ADJUSTED LOCALLY TO SUIT FINISHED GROUND LEVELS.
 11. AT LEAST ONE SOIL PIPE AT THE HEAD OF EACH FOUL RUN SHALL VENT TO THE ATMOSPHERE.
 12. EXISTING DRAINAGE TO BE REMOVED IS TO BE BROKEN OUT TO BED LEVEL AND VOID BACKFILLED WITH GRANULAR MATERIAL. COMPACTED IN LAYERS NOT EXCEEDING 250mm. ALL DRAIN RUNS FROM SVP'S, STUB STACKS OR FW GULLIES TO BE LAID AT 1:40 GRADIENT UNLESS OTHERWISE STATED. ALL RWP'S TO BE LAID 1:80 MIN UNLESS OTHERWISE STATED.
 14. ALL PRIVATE DRAINAGE TO BE LAID TO LEVELS SHOWN USING FLEXIBLY JOINTED PIPES, EITHER UPVC TO BS 4660 AND BS 5481 OR VITRIFIED CLAYWARE TO BS EN 295.
 15. ALL PROPOSED TREES TO HAVE APPROPRIATE TREE BARRIER DETAILS LINKING PITS TO ENSURE ROOTS ARE DIRECTED AWAY FROM DRAINAGE.
 16. WHERE NEW SEWERS ARE CONSTRUCTED WITHIN 5m OF A NEW OR EXISTING TREE THE SEWER SHALL BE PROTECTED AGAINST ROOT INTRUSION. REFER TO DRAINAGE DETAILS.
 17. ALL NEW DRAINAGE TO BE JETTED AND CCTV SURVEYED ON COMPLETION. CONTRACTOR TO MAKE SURE THAT THE DRAINAGE IS FULLY OPERATIONAL. REFER TO DRAINAGE MAINTENANCE MANUAL FOR MAINTENANCE DETAILS.



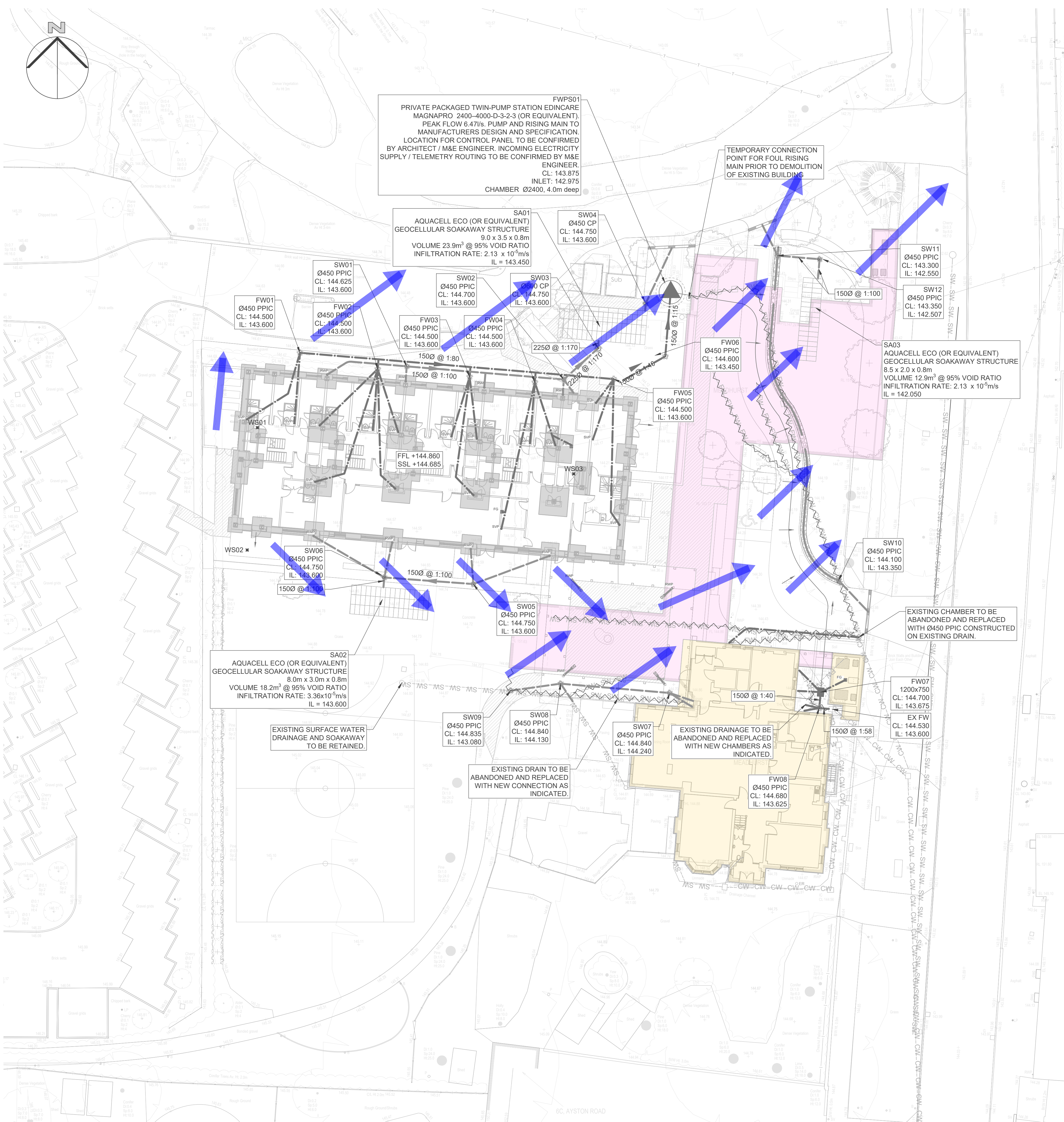
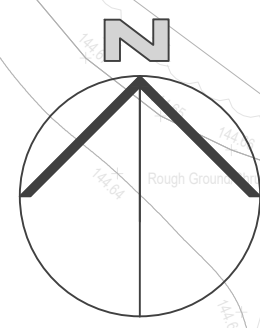
NOT FOR CONSTRUCTION

P02 26.01.24	LANDSCAPE ARCHITECT LAYOUT AMENDED	JT	AM
P01 08.12.23	STAGE 3A ISSUE	JT	AM
Rev Date	Description	Drawn	Check

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Drawing Status	
S3 - SUITABLE FOR REVIEW & COMMENT	
Project	Date DEC 2023
UPPINGHAM SCHOOL MEADHURST	Scale 1:200@A1
Drawn	JT
Engineer	AM
Title	Project No
DRAINAGE STRATEGY MEADHURST ARRANGEMENT	230021
Drawing No	Revision
230021-CON-XX-00-DR-C-1000	P02

1. DRAWING BASED ON TOPOGRAPHIC SURVEY BY AIMCON SURVEYS, REF. 01-1538, REV. G, DATED 05.02.2023.
2. PROPOSED LANDSCAPE LAYOUT BASED ON LIVINGSTON EYE ASSOCIATES DRAWING REF. 4403-LEA-00-00-DR-L-1001, REV. P10, DATED 23.01.2024.
3. EXISTING DRAINAGE INFORMATION BASED ON UNDERGROUND UTILITY SURVEY BY AIMCON SURVEYS, REF. 01-1822, REV. F, DATED 02.02.2023.
4. RWP / SVP / SS POSITIONS ARE SHOWN INDICATIVELY AND SUBJECT TO FINAL DESIGN.



LEGEND

- — — SITE BOUNDARY
- EXISTING BUILDING TO BE DEMOLISHED
- EXISTING BUILDING TO BE RETAINED
- FW—FW EXISTING FOUL DRAIN
- SW—SW EXISTING SURFACE WATER DRAIN
- CW—CW EXISTING COMBINED DRAIN
- EXISTING DRAIN TO BE ABANDONED
- PROPOSED FOUL DRAIN
- PROPOSED FOUL MANHOLE / INSPECTION CHAMBER
- SVP STUB STACK / SOIL VENT PIPE
- FG FLOOR GULLY
- PROPOSED FOUL PUMPING STATION
- PROPOSED SURFACE WATER DRAIN
- PROPOSED SURFACE WATER MANHOLE / INSPECTION CHAMBER
- RWP RAIN WATER PIPE
- FILTER DRAIN AND INFILTRATION TRENCH WITH PERFORATED PIPE
- LINEAR DRAINAGE CHANNEL
- POROUS NATRATREX PAVING TO LANDSCAPE ARCHITECTS SPECIFICATION
- GEOCELLULAR SOAKAWAY, AQUACELL ECO (OR EQUIVALENT)

GENERAL NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS, ENGINEERS AND SPECIALIST DRAWINGS AND SPECIFICATIONS
2. DO NOT SCALE FROM THIS DRAWING IN EITHER PAPER OR DIGITAL FORM. USE WRITTEN DIMENSIONS ONLY.

FWPS01
PRIVATE PACKAGED TWIN-PUMP STATION EDINCARE MAGNAPRO 2400-4000-D-3-2-3 (OR EQUIVALENT). PEAK FLOW 6.47l/s. PUMP AND RISING MAIN TO MANUFACTURERS DESIGN AND SPECIFICATION. LOCATION FOR CONTROL PANEL TO BE CONFIRMED BY ARCHITECT / M&E ENGINEER. INCOMING ELECTRICITY SUPPLY / TELEMETRY ROUTING TO BE CONFIRMED BY M&E ENGINEER.
CL: 143.875
INLET: 142.975
CHAMBER Ø2400, 4.0m deep

TEMPORARY CONNECTION POINT FOR FOUL RISING MAIN PRIOR TO DEMOLITION OF EXISTING BUILDING

SA01
AQUACELL ECO (OR EQUIVALENT) GEOCELLULAR SOAKAWAY STRUCTURE
9.0 x 3.5 x 0.8m
VOLUME 23.9m³ @ 95% VOID RATIO
INFILTRATION RATE: 2.13 x 10⁻⁵m/s
IL = 143.450

SA03
AQUACELL ECO (OR EQUIVALENT) GEOCELLULAR SOAKAWAY STRUCTURE
8.5 x 2.0 x 0.8m
VOLUME 12.9m³ @ 95% VOID RATIO
INFILTRATION RATE: 2.13 x 10⁻⁵m/s
IL = 142.050

SA02
AQUACELL ECO (OR EQUIVALENT) GEOCELLULAR SOAKAWAY STRUCTURE
8.0m x 3.0m x 0.8m
VOLUME 18.2m³ @ 95% VOID RATIO
INFILTRATION RATE: 3.36x10⁻⁵m/s
IL = 143.600

EXISTING SURFACE WATER DRAINAGE AND SOAKAWAY TO BE RETAINED.

EXISTING DRAIN TO BE ABANDONED AND REPLACED WITH NEW CONNECTION AS INDICATED.

EXISTING DRAINAGE TO BE ABANDONED AND REPLACED WITH NEW CHAMBERS AS INDICATED.

EXISTING CHAMBER TO BE ABANDONED AND REPLACED WITH Ø450 PPIC CONSTRUCTED ON EXISTING DRAIN.

1. DRAWING BASED ON TOPOGRAPHIC SURVEY BY AIMCON SURVEYS, REF. 01-1538, REV. G, DATED 05.02.2023.
2. PROPOSED LANDSCAPE LAYOUT BASED ON LIVINGSTON EYRE ASSOCIATES DRAWING REF. 4403-LEA-00-00-DR-L-1001, REV. P10, DATED 23.01.2024.
3. EXISTING DRAINAGE INFORMATION BASED ON UNDERGROUND UTILITY SURVEY BY AIMCON SURVEYS, REF. 01-1822, REV. F, DATED 02.02.2023.
4. RWP / SVP / SS POSTIONS ARE SHOWN INDICATIVELY AND SUBJECT TO FINAL DESIGN.

NOT FOR CONSTRUCTION

P2 26.01.24	UPDATED FOR PLANNING	JT	AM
P1 08.12.23	STAGE 3A ISSUE	JT	AM
Rev Date	Description	Drawn	Check

conisbee Consulting Structural Engineers
Consulting Civil Engineers
London • Cambridge • Norwich
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Telephone 020 7700 6666
www.conisbee.co.uk

Drawing Status			
S3 - SUITABLE FOR REVIEW & COMMENT			
Project	UPPINGHAM SCHOOL MEADHURTS	Date	JAN 24
Scale	1:200@A1	Drawn	AM
Title	EXCEEDANCE FLOW PATHS	Engineer	AM
Project No	230021	Revision	P2
Drawing No	230021-CON-XX-00-DR-C-1010		

APPENDIX E - PDS FLOW MODEL REPORT