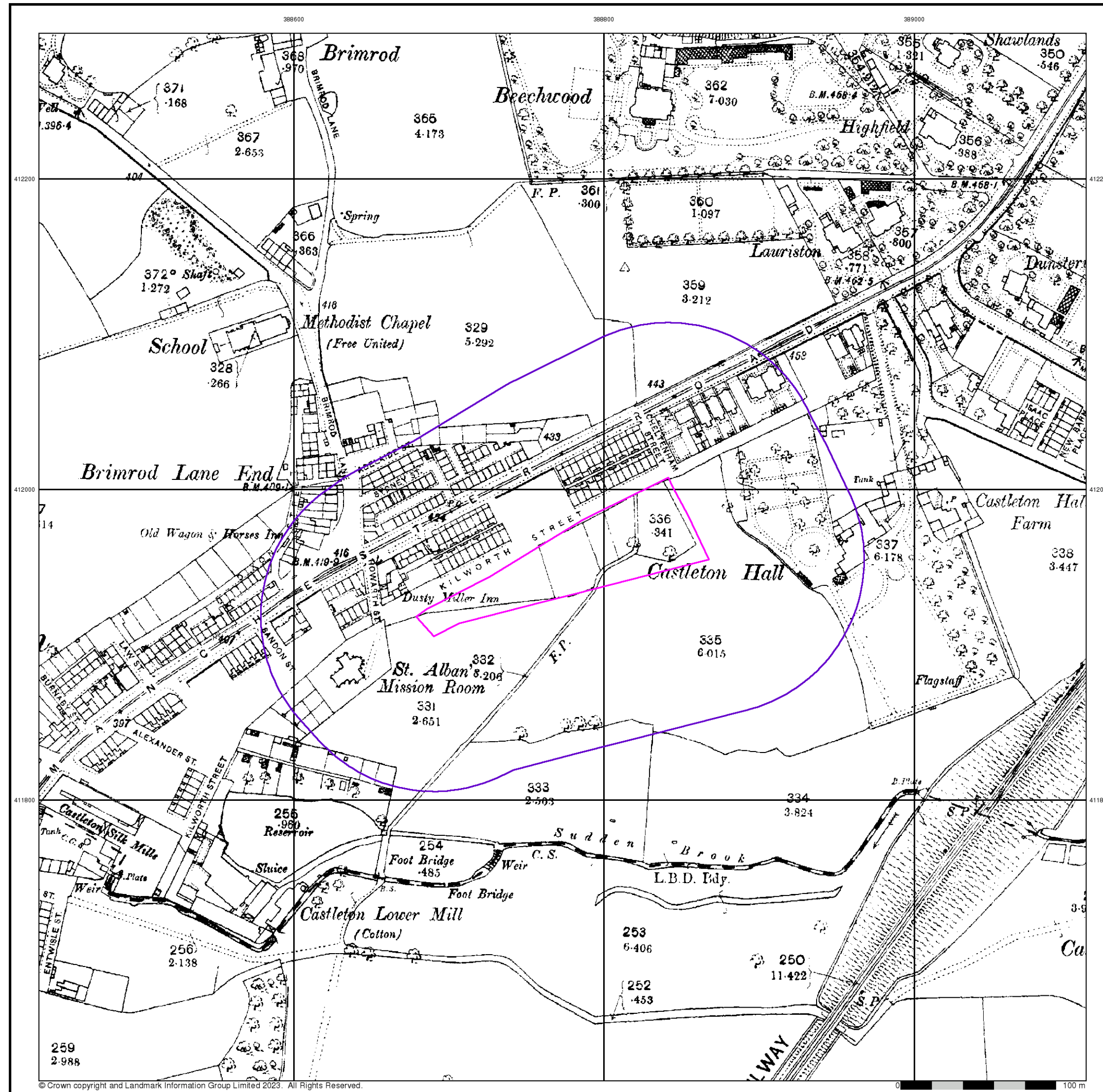


APPENDIX F

Selection of Historic Maps



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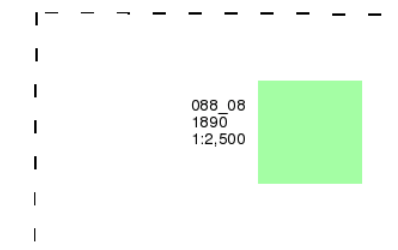
Lancashire And Furness

Published 1890

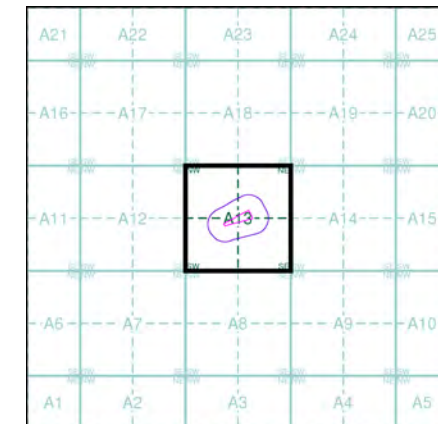
Source map scale - 1:2,500

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 and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below 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.

Map Name(s) and Date(s)



Historical Map - Segment A13

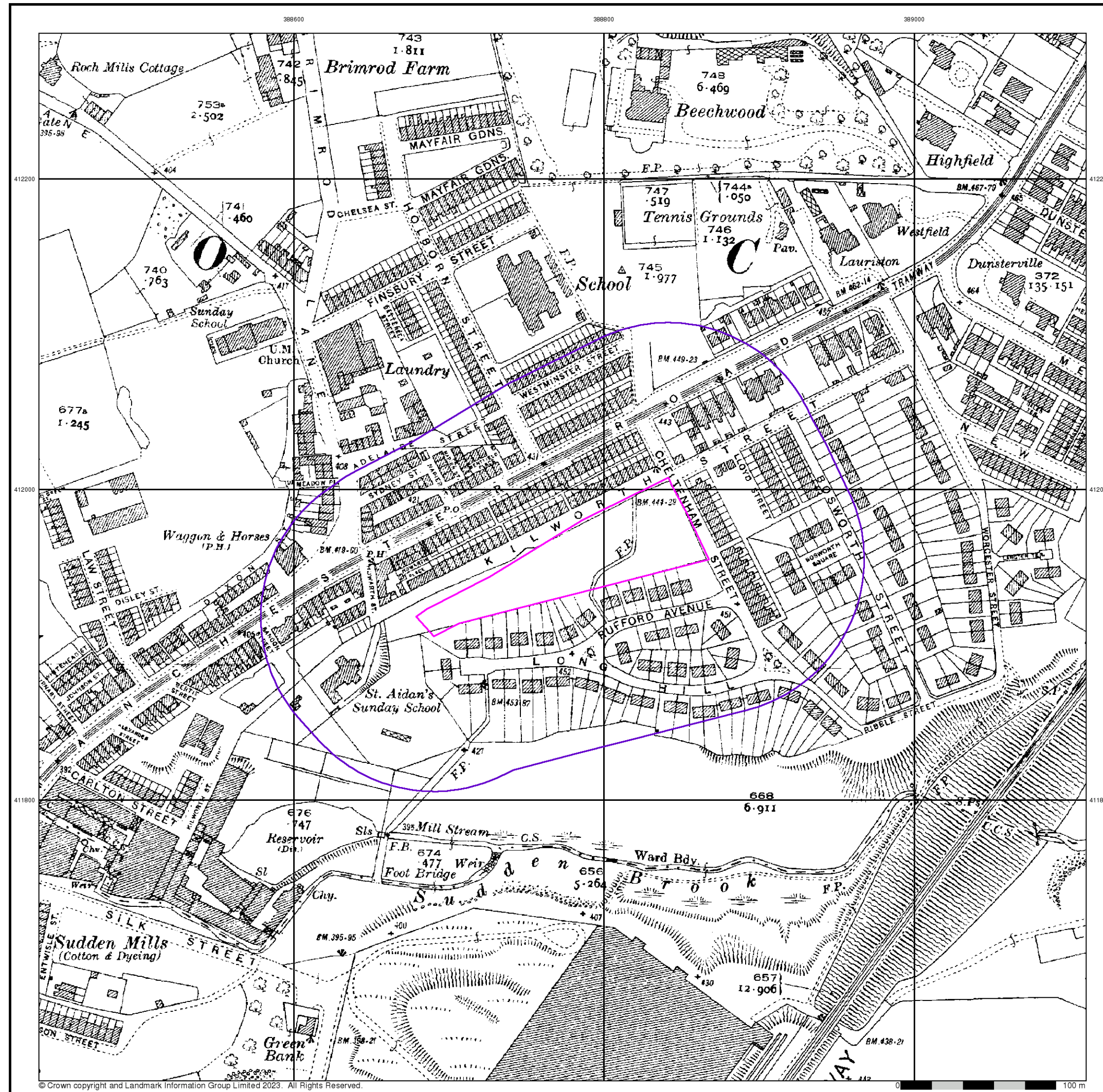


Order Details

Order Number: 309538152_1_1
Customer Ref: UK23.6426
National Grid Reference: 388780, 411950
Slice: A
Site Area (Ha): 0.68
Search Buffer (m): 100

Site Details

EG Manchester Road, Sudden, Rochdale, OL11 3PT



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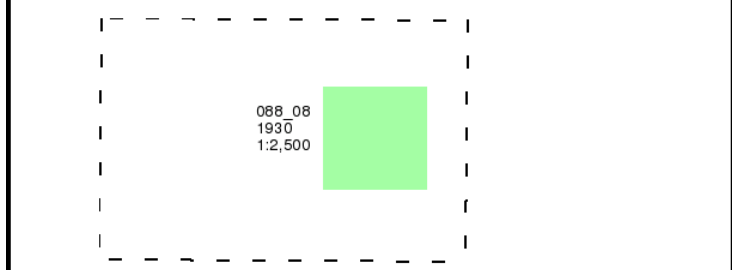
Lancashire And Furness

Published 1930

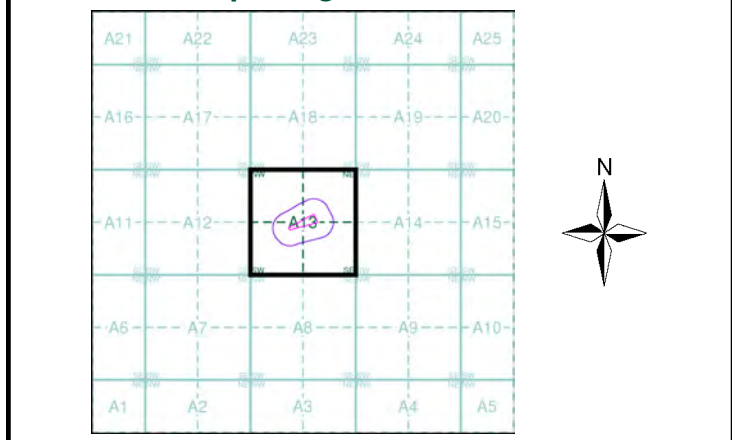
Source map scale - 1:2,500

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 and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below 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.

Map Name(s) and Date(s)



Historical Map - Segment A13

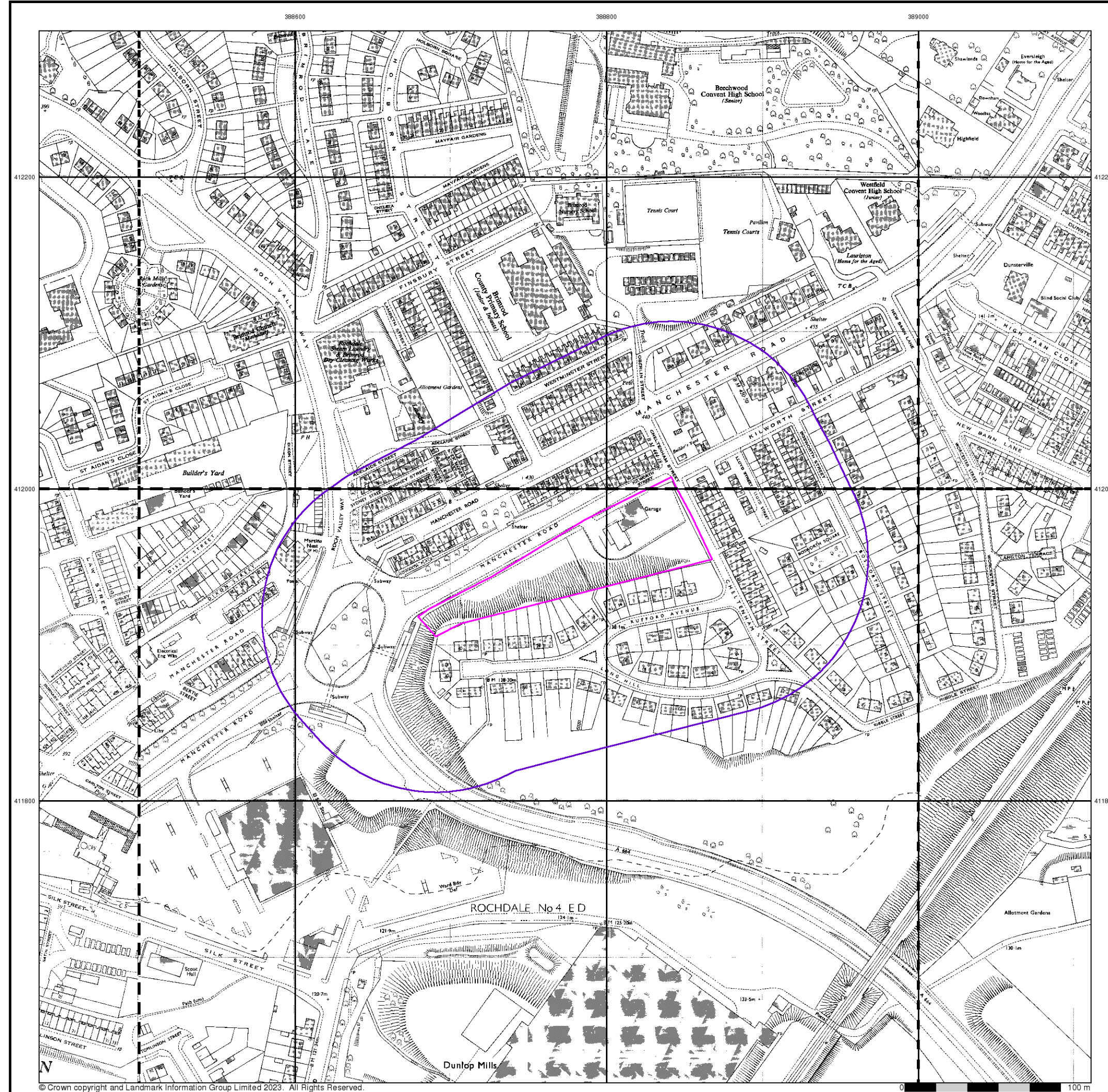


Order Details	
Order Number:	309538152_1_1
Customer Ref:	UK23.6426
National Grid Reference:	388780, 411950
Slice:	A
Site Area (Ha):	0.68
Search Buffer (m):	100

Site Details
EG Manchester Road, Sudden, Rochdale, OL11 3PT

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INFORMATION GROUP

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Web: www.envirocheck.co.uk



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Ordnance Survey Plan

Published 1963 - 1975

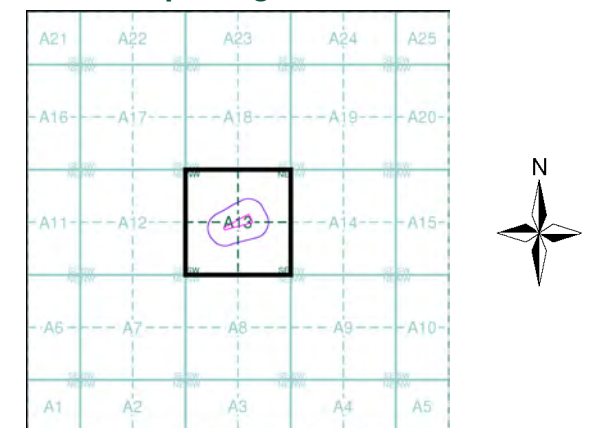
Source map scale - 1:1,250

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 and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below 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.

Map Name(s) and Date(s)

SD8812SW 1964 1:1,250	SD8812SE 1964 1:1,250	SD8912SW 1973 1:1,250
SD8811NW 1963 1:1,250	SD8811NE 1975 1:1,250	SD8911NW 1972 1:1,250

Historical Map - Segment A13



Order Details

Order Number: 309538152_1_1
Customer Ref: UK23.6426
National Grid Reference: 388780, 411950
Slice: A
Site Area (Ha): 0.68
Search Buffer (m): 100

Site Details

EG Manchester Road, Sudden, Rochdale, OL11 3PT

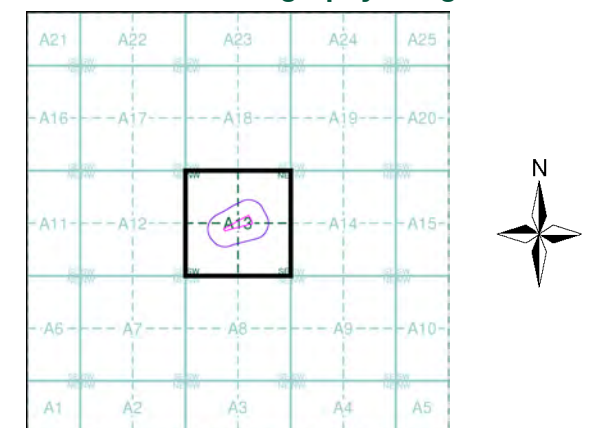


Historical Aerial Photography

Published 2000

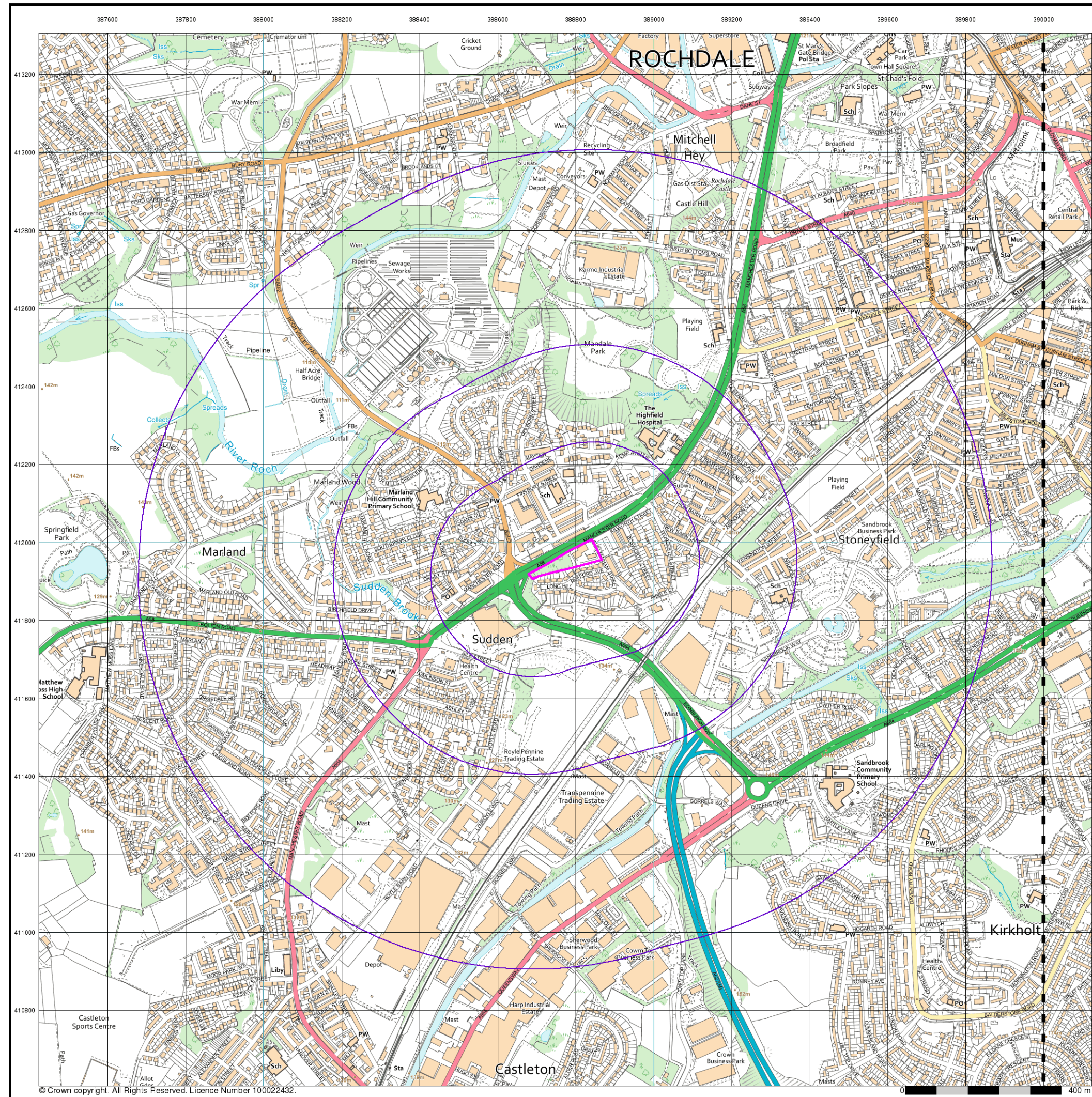
This aerial photography was produced by Getmapping, these vertical aerial photographs provide a seamless, full colour survey of the whole of Great Britain

Historical Aerial Photography - Segment A13



Order Details
Order Number: 309538152_1_1
Customer Ref: UK23.6426
National Grid Reference: 388780, 411950
Slice: A
Site Area (Ha): 0.68
Search Buffer (m): 100

Site Details
EG Manchester Road, Sudden, Rochdale, OL11 3PT



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VectorMap Local

Published 2022

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)

SD81SE 2022 Variable	SD91SW 2022 Variable
----------------------------	----------------------------

Historical Map - Slice A

N

Order Details

Order Number:	309538152_1_1
Customer Ref:	UK23.6426
National Grid Reference:	388780, 411950
Slice:	A
Site Area (Ha):	0.68
Search Buffer (m):	1000

Site Details

EG Manchester Road, Sudden, Rochdale, OL11 3PT

APPENDIX G

Site Specific Borehole Logs



Borehole Log

Borehole No.

WS01

Sheet 1 of 1

Project Name: Manchester Road, Sudden

Project No.
UK23.6426

Co-ords: -241617E - 7095521N

Hole Type
WS

Location: Manchester Road, Sudden, Rochdale, OL11 3PT

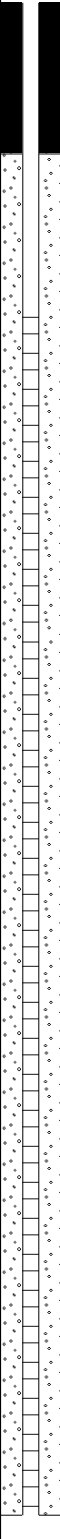
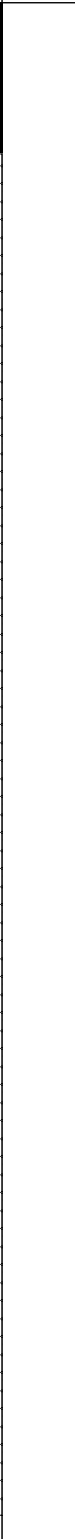
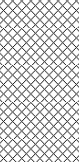
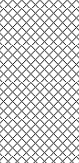
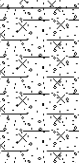
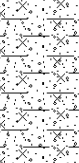
Level:

Scale
1:25

Client: Euro Garages

Dates: 25/04/2023

Logged By
JP

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	In Situ Results					
					0.15			CONCRETE HARDSTANDING.	
								MADE GROUND: Dark brown, grey sandy GRAVEL with rare cobbles. Fragment of brick and clinker present.	
					0.70			MADE GROUND: Brown slightly silty slightly gravelly SAND. Gravels are fragment of brick, fine to medium, angular to subangular.	1
		1.00	SPT	N=10 (2,3/3,2,3,2)					
		1.40 - 1.60	D		1.30			Brown slightly silty gravelly SAND with nodules of dark brown clay and rare coal fragments. Gravels are coarse angular to subangular.	
		1.40 - 1.60	ES						
		1.90 - 2.30	ES		1.70			Medium dense brown to dark brown clayey slightly silty gravelly SAND with rare fragments of coal.	2
		2.00	SPT	N=15 (3,4/3,4,4,4)					
		3.00	SPT	N=9 (2,2/3,2,2,2)	3.00			Loose dark brown clayey silty SAND.	3
		3.30 - 3.60	D		3.30			Medium dense dark brown variably silty SAND. Becomes more silty with depth.	
		4.00	SPT	N=15 (4,4/4,4,4,3)					4
		5.00	SPT	N=15 (4,4/4,4,3,4)	5.00			End of Borehole at 5.000m	5

Remarks

No water accumulation during drilling process, but soils noted to be wet from 2.7m depth.
Following well installation PID reading from gas tap = 6.3ppmV.
Termination Reason: Target depth achieved.





Borehole Log

Borehole No.

WS02

Sheet 1 of 1

Project Name: Manchester Road, Sudden

Project No.
UK23.6426

Co-ords: -241569E - 7095558N

Hole Type
WS

Location: Manchester Road, Sudden, Rochdale, OL11 3PT

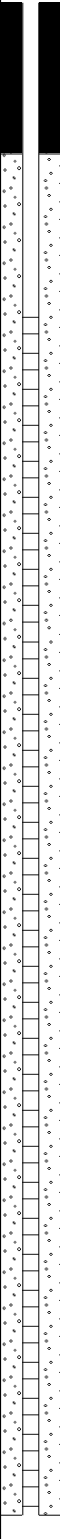
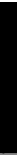
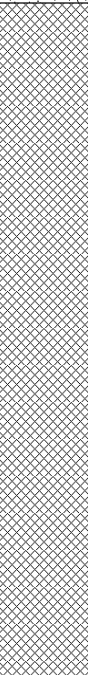
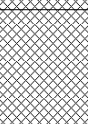
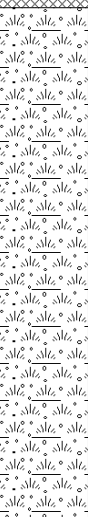
Level:

Scale
1:25

Client: Euro Garages

Dates: 25/04/2023

Logged By
JP

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	In Situ Results					
					0.15			CONCRETE HARDSTANDING.	
								MADE GROUND: Dark brown to brown gravelly slightly cobbly SAND. Gravels are fragments of sandstone and red brick fine to coarse, angular to subangular.	1
		0.80 - 1.00	ES						
		1.00	SPT	N=21 (5,5/5,6,5,5)					
		1.60 - 1.80	D						
		2.00	SPT	N=13 (6,4/4,3,3,3)					2
					2.40			MADE GROUND: Multicoloured clayey sandy cobbly GRAVEL. Fragments of sandstone and red brick.	
					2.80			Very Soft dark brownish black clayey slightly gravelly PEAT. High organic matter.	3
		3.50 - 3.70	D						
		3.50 - 3.80	ES						
		4.00	SPT	N=1 (1,1/0,0,0,1)					4
					4.50			Medium dense dark grey slightly silty slightly gravelly SAND. Gravels are of organic material.	
		5.00	SPT	N=19 (1,1/1,0,8,10)	5.00			End of Borehole at 5.000m	5

Remarks

No groundwater encountered.
Following well installation PID reading from gas tap = 4.0ppmV.
Termination Reason: Target depth achieved.





Borehole Log

Borehole No.

WS03

Sheet 1 of 1

Project Name: Manchester Road, Sudden

Project No.
UK23.6426

Co-ords: -241667E - 7095534N

Hole Type
WS

Location: Manchester Road, Sudden, Rochdale, OL11 3PT

Level:

Scale
1:25

Client: Euro Garages

Dates: 25/04/2023

Logged By
JP

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	In Situ Results					
					0.20			TOPSOIL: Dark brown slightly silty slightly clayey SAND. Rootlets present throughout.	
								MADE GROUND: Dark brown clayey very gravelly SAND. Fragments of brick and concrete present.	
		1.00	SPT	N=40 (15,5/15,4,5,16)					1
		1.50	SPT	N=50 (25 for 85mm/50 for 170mm)	1.50			End of Borehole at 1.500m	2
									3
									4
									5

Remarks

No groundwater encountered.
Termination Reason: Drilling refusal.



Borehole Log

Borehole No.

WS04

Sheet 1 of 1

Project Name: Manchester Road, Sudden

Project No.
UK23.6426

Co-ords: -241659E - 7095567N

Hole Type
WS

Location: Manchester Road, Sudden, Rochdale, OL11 3PT

Level:

Scale
1:25

Client: Euro Garages

Dates: 25/04/2023

Logged By
JP

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	In Situ Results					
		0.20 - 0.40	ES		0.18			CONCRETE HARDSTANDING.	
					0.50			MADE GROUND: Dark brown gravelly SAND. Gravels are fragments of brick, sandstone and glass.	
								End of Borehole at 0.500m	
									1
									2
									3
									4
									5

Remarks

No groundwater encountered.
Termination Reason: Refusal on 0.3m thick concrete below 0.5m depth.





Borehole Log

Borehole No.

WS05

Sheet 1 of 1

Project Name: Manchester Road, Sudden

Project No.
UK23.6426

Co-ords: -241663E - 7095564N

Hole Type
WS

Location: Manchester Road, Sudden, Rochdale, OL11 3PT

Level:

Scale
1:25

Client: Euro Garages

Dates: 25/04/2023

Logged By
JP

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	In Situ Results					
					0.16			CONCRETE HARDSTANDING.	
		0.50 - 0.80 0.50 - 0.80	D ES					MADE GROUND: Dark brown slightly silty very gravelly cobbly SAND. Fragments of brick, glass and metal.	
					1.00			End of Borehole at 1.000m	1
									2
									3
									4
									5

Remarks

No groundwater encountered.

Termination Reason: Hand pitting stopped as drillers believe service present below 1.0m depth.





Borehole Log

Borehole No.

WS06

Sheet 1 of 1

Project Name: Manchester Road, Sudden

Project No.
UK23.6426

Co-ords: -241663E - 7095550N

Hole Type
WS

Location: Manchester Road, Sudden, Rochdale, OL11 3PT

Level:

Scale
1:25

Client: Euro Garages

Dates: 25/04/2023

Logged By
JP

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	In Situ Results					
					0.15			TOPSOIL: Dark brown slightly silty slightly clayey SAND. Rootlets present throughout.	
								MADE GROUND: Dark brown slightly gravelly SAND. Cobble of red brick present. Fragments of sandstone, glass and clinker.	
		1.00	SPT	N=14 (4,3/4,4,3,3)					1
		1.20 - 1.50	ES						
		1.40 - 1.70	D						
		2.00	SPT	N=50 (10,11/50 for 250mm)	2.00			End of Borehole at 2.000m	2
									3
									4
									5

Remarks

No groundwater encountered.
Termination Reason: Drilling refusal.



Borehole Log

Borehole No.

WS07

Sheet 1 of 1

Project Name: Manchester Road, Sudden

Project No.
UK23.6426

Co-ords: -241685E - 7095509N

Hole Type
WS

Location: Manchester Road, Sudden, Rochdale, OL11 3PT

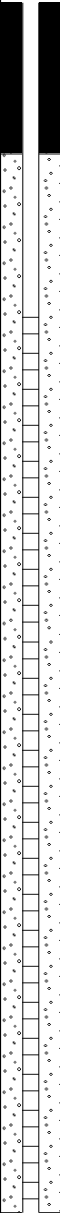
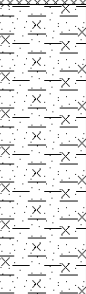
Level:

Scale
1:25

Client: Euro Garages

Dates: 25/04/2023

Logged By
JP

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	In Situ Results					
		0.30 - 1.30	B		0.30			MADE GROUND: Grass top. Dark brown silty clayey SAND with rootlets throughout. Fragments of glass, brick and plastic present.	1
								Soft grey mottled orange very silty sandy CLAY.	
		0.60		HVP=65					
		0.70		HVP=101					
		0.90		HVP=102					
		1.00	SPT	N=15 (3,3/3,3,4,5)					
		1.30		HVP=56	1.30			Orangish brown slightly clayey very silty SAND.	
		1.50 - 1.80	ES		1.40			Greyish brown slightly silty CLAY. Rootlets present throughout.	
		1.50		HVP=102					
		1.60		HVP=79					
		1.70		HVP=72					
		1.80 - 2.00	D					Medium dense greyish dark brown clayey slightly silty SAND.	2
		1.80		HVP=78					
		1.90		HVP=98					
		2.00 - 2.30	D		2.00				
		2.00	SPT	N=13 (4,3/3,3,3,4)					
		2.40		HVP=45	2.30			Greyish brown mottled black CLAY.	
		2.50 - 2.80	D						
		2.60		HVP=65					
		2.80		HVP=61					
		2.90		HVP=61					
		3.00	SPT	N=16 (4,3/4,4,4,4)	3.00			Medium dense grey very silty SAND. Observed wet.	3
		3.50 - 3.70	D						
		3.70 - 4.00	ES						
		4.00	SPT	N=15 (4,4/4,4,4,3)	4.00				4
								End of Borehole at 4.000m	5

Remarks

No water accumulation during drilling process, but soils noted to be wet from 4.0m depth.
Termination Reason: Hole collapsing.





Borehole Log

Borehole No.

WS08

Sheet 1 of 1

Project Name: Manchester Road, Sudden

Project No.
UK23.6426

Co-ords: -241735E - 7095504N

Hole Type
WS

Location: Manchester Road, Sudden, Rochdale, OL11 3PT

Level:

Scale
1:25

Client: Euro Garages

Dates: 26/04/2023

Logged By
JP

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	In Situ Results					
					0.30			TOPSOIL: Dark brown slightly silty slightly clayey SAND. Rootlets present throughout.	1
		0.40 - 0.80	ES				Medium dense light to dark brown mottled black slightly clayey slightly silty SAND. Becomes orangish brown after 2.5m.		
		0.80 - 1.00	D						
		1.00	SPT	N=18 (2,3/3,4,5,6)					
		1.10 - 2.10	B						
		2.00	SPT	N=18 (3,4/4,4,5,5)			2		
		2.80 - 3.00	D						
		3.00	SPT	N=16 (3,2/4,3,4,5)	3.00			3	
		4.00	SPT	N=17 (3,4/4,4,4,5)	4.00		End of Borehole at 4.000m	4	
									5

Remarks

No groundwater encountered.
Termination Reason: Hole collapse, could not case beyond 4.0m depth.





Borehole Log

Borehole No.

WS09

Sheet 1 of 1

Project Name: Manchester Road, Sudden

Project No.
UK23.6426

Co-ords: -241752E - 7095504N

Hole Type
WS

Location: Manchester Road, Sudden, Rochdale, OL11 3PT

Level:

Scale
1:25

Client: Euro Garages

Dates: 26/04/2023

Logged By
JP

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	In Situ Results					
		1.00	SPT	N=46 (17,8/10,12,14,10)	0.30			TOPSOIL: Dark brown slightly silty slightly clayey SAND. Rootlets present throughout.	1
					0.60			MADE GROUND: Reddish dark brown slightly clayey SAND with rare nodules of clay.	
					1.50			MADE GROUND: Dark brown, grey slightly sandy silty GRAVEL of fragments of sandstone and brick.	
		1.50	SPT	N=50 (25 for 85mm/50 for 180mm)	1.50			End of Borehole at 1.500m	2
									3
									4
									5

Remarks

No groundwater encountered.
Termination Reason: Drilling refusal.



Borehole Log

Borehole No.

WS10

Sheet 1 of 1

Project Name: Manchester Road, Sudden

Project No.
UK23.6426

Co-ords: -241768E - 7095476N

Hole Type
WS

Location: Manchester Road, Sudden, Rochdale, OL11 3PT

Level:

Scale
1:25

Client: Euro Garages

Dates: 26/04/2023

Logged By
JP

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	In Situ Results					
		0.20 - 1.20	B		0.20			MADE GROUND: Dark brown clayey slightly clayey SAND. Fragments of brick, glass and metal.	
								Light brown slightly gravelly SAND. Gravels are fine subangular.	
		1.00	SPT	N=12 (2,2/3,3,3,3)	1.20				1
		1.80 - 2.10	D					Medium dense brown mottled black slightly silty SAND with frequent nodules of reddish brown clay and rootlets.	
		2.00	SPT	N=18 (2,3/4,4,5,5)					2
					2.50			Medium dense brown slightly clayey slightly silty SAND.	
		3.00	SPT	N=18 (3,3/3,4,5,6)					3
		4.00	SPT	N=16 (3,4/4,4,4,4)	4.00			Medium dense brown mottled black slightly silty SAND with frequent nodules of reddish brown clay and rootlets.	4
		5.00	SPT	N=18 (4,5/4,5,4,5)	5.00			End of Borehole at 5.000m	5

Remarks

No water accumulation during drilling process, but soils noted to be wet from 3.0m depth.
Termination Reason: Target Depth Achieved.





Borehole Log

Borehole No.

WS11

Sheet 1 of 1

Project Name: Manchester Road, Sudden

Project No.
UK23.6426

Co-ords: -241762E - 7095495N

Hole Type
WS

Location: Manchester Road, Sudden, Rochdale, OL11 3PT

Level:

Scale
1:25

Client: Euro Garages

Dates: 26/04/2023

Logged By
JP

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	In Situ Results					
					0.38			TOPSOIL: Dark brown slightly silty slightly clayey SAND. Rootlets present throughout.	
								End of Borehole at 0.380m	
									1
									2
									3
									4
									5

Remarks

No groundwater encountered.
Termination Reason: Drilling refusal.



Borehole Log

Borehole No.

WS11a

Sheet 1 of 1

Project Name: Manchester Road, Sudden

Project No.
UK23.6426

Co-ords: -241763E - 7095497N

Hole Type
WS

Location: Manchester Road, Sudden, Rochdale, OL11 3PT

Level:

Scale
1:25

Client: Euro Garages

Dates: 26/04/2023

Logged By
JP

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	In Situ Results					
					0.47			TOPSOIL: Dark brown slightly silty slightly clayey SAND. Rootlets present throughout.	
								End of Borehole at 0.470m	
									1
									2
									3
									4
									5

Remarks

No groundwater encountered.
Termination Reason: Drilling refusal.

APPENDIX H

Laboratory Results – Environmental



Certificate of Analysis

Certificate Number 23-10291

Issued: 10-May-23

Client EPS (Leeds) Ltd
10-12 East Parade
Leeds
LS1 2BH

Our Reference 23-10291

Client Reference UK23.6426

Order No 31877

Contract Title Manchester Road, Sudden

Description 9 Soil samples, 3 Leachate samples.

Date Received 28-Apr-23

Date Started 28-Apr-23

Date Completed 10-May-23

Test Procedures Identified by prefix DETSn (details on request).

Notes Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

A handwritten signature in black ink, appearing to read "K. Bridgewood".

Kirk Bridgewood
General Manager



2139

Summary of Chemical Analysis

Soil Samples

Our Ref 23-10291

Client Ref UK23.6426

Contract Title Manchester Road, Sudden

Lab No	2164262	2164263	2164264	2164265	2164266	2164267	2164268
Sample ID	WS01 ES1	WS02 ES1	WS02 ES2	WS04 ES1	WS05 ES1	WS06 ES1	WS07 ES1
Depth	1.40-1.60	0.80-1.00	3.50-3.80	0.20-0.40	0.50-0.80	1.20-1.50	3.70-4.00
Other ID							
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	25/04/2023	25/04/2023	25/04/2023	25/04/2023	25/04/2023	25/04/2023	26/04/2023
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units							
Chromatogram	*	0			N			N	N	
Preparation										
Moisture Content	DETS 1004	0.1	%		4.7					
Metals										
Arsenic	DETS 2301#	0.2	mg/kg	2.6	0.9	14	2.0			
Boron, Water Soluble (2.5:1)	DETS 2311#	0.2	mg/kg	< 0.2		0.9	0.7			
Cadmium	DETS 2301#	0.1	mg/kg	< 0.1	< 0.1	0.2	0.1			
Chromium	DETS 2301#	0.15	mg/kg	4.5	4.9	15	8.5			
Chromium, Hexavalent	DETS 2204*	1	mg/kg		< 1.0					
Copper	DETS 2301#	0.2	mg/kg	5.9	3.5	44	6.9			
Lead	DETS 2301#	0.3	mg/kg	3.4	5.0	68	7.8			
Mercury	DETS 2325#	0.05	mg/kg	< 0.05	< 0.05	0.25	< 0.05			
Nickel	DETS 2301#	1	mg/kg	4.2	4.7	19	7.6			
Selenium	DETS 2301#	0.5	mg/kg	< 0.5	< 0.5	0.5	< 0.5			
Zinc	DETS 2301#	1	mg/kg	16	20	170	30			
Inorganics										
pH	DETS 2008#		pH	5.7		6.2	10.9	8.0	8.1	7.4
Cyanide, Total	DETS 2130#	0.1	mg/kg	< 0.1		0.6	0.2			
Organic matter	DETS 2002#	0.1	%	1.4		4.9	0.1			
Sulphate Aqueous Extract as SO4 (2:1)	DETS 2076#	10	mg/l					63	75	43
Sulphide	DETS 2024*	10	mg/kg	100		48	44			
Sulphur as S, Total	DETS 2320	0.01	%					0.05	0.03	0.09
Sulphate as SO4, Total	DETS 2321#	0.01	%	0.02		0.10	0.18	0.05	0.06	0.02
Petroleum Hydrocarbons										
Aliphatic C5-C6: HS_1D_AL	DETS 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Aliphatic C6-C8: HS_1D_AL	DETS 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Aliphatic C8-C10: HS_1D_AL	DETS 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Aliphatic C10-C12: EH_CU_1D_AL	DETS 3072#	1.5	mg/kg	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	
Aliphatic C12-C16: EH_CU_1D_AL	DETS 3072#	1.2	mg/kg	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	
Aliphatic C16-C21: EH_CU_1D_AL	DETS 3072#	1.5	mg/kg	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	
Aliphatic C21-C35: EH_CU_1D_AL	DETS 3072#	3.4	mg/kg	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	
Aliphatic C5-C35: EH_CU+HS_1D_AL	DETS 3072*	10	mg/kg	< 10	< 10	< 10	< 10	< 10	< 10	
Aromatic C5-C7: HS_1D_AR	DETS 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Aromatic C7-C8: HS_1D_AR	DETS 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Aromatic C8-C10: HS_1D_AR	DETS 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Aromatic C10-C12: EH_CU_1D_AR	DETS 3072#	0.9	mg/kg	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	
Aromatic C12-C16: EH_CU_1D_AR	DETS 3072#	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
Aromatic C16-C21: EH_CU_1D_AR	DETS 3072#	0.6	mg/kg	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	
Aromatic C21-C35: EH_CU_1D_AR	DETS 3072#	1.4	mg/kg	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	
Aromatic C5-C35: EH_CU+HS_1D_AR	DETS 3072*	10	mg/kg	< 10	< 10	< 10	< 10	< 10	< 10	
TPH Ali/Aro Total C5-C35: EH_CU+HS_1D_Total	DETS 3072*	10	mg/kg	< 10	< 10	< 10	< 10	< 10	< 10	

Summary of Chemical Analysis

Soil Samples

Our Ref 23-10291

Client Ref UK23.6426

Contract Title Manchester Road, Sudden

Lab No	2164262	2164263	2164264	2164265	2164266	2164267	2164268
Sample ID	WS01 ES1	WS02 ES1	WS02 ES2	WS04 ES1	WS05 ES1	WS06 ES1	WS07 ES1
Depth	1.40-1.60	0.80-1.00	3.50-3.80	0.20-0.40	0.50-0.80	1.20-1.50	3.70-4.00
Other ID							
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	25/04/2023	25/04/2023	25/04/2023	25/04/2023	25/04/2023	25/04/2023	26/04/2023
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units							
Benzene	DETSC 3321#	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Ethylbenzene	DETSC 3321#	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Toluene	DETSC 3321#	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Xylene	DETSC 3321#	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
MTBE	DETSC 3321	0.01	mg/kg		< 0.01			< 0.01	< 0.01	
PAHs										
Naphthalene	DETSC 3303#	0.03	mg/kg		< 0.03					
Acenaphthylene	DETSC 3303#	0.03	mg/kg		< 0.03					
Acenaphthene	DETSC 3303#	0.03	mg/kg		< 0.03					
Fluorene	DETSC 3303	0.03	mg/kg		< 0.03					
Phenanthrene	DETSC 3303#	0.03	mg/kg		< 0.03					
Anthracene	DETSC 3303	0.03	mg/kg		< 0.03					
Fluoranthene	DETSC 3303#	0.03	mg/kg		< 0.03					
Pyrene	DETSC 3303#	0.03	mg/kg		< 0.03					
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg		< 0.03					
Chrysene	DETSC 3303	0.03	mg/kg		< 0.03					
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg		< 0.03					
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg		< 0.03					
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg		< 0.03					
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg		< 0.03					
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg		< 0.03					
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg		< 0.03					
Naphthalene	DETSC 3301	0.1	mg/kg	< 0.1		< 0.1	< 0.1			
Acenaphthylene	DETSC 3301	0.1	mg/kg	< 0.1		< 0.1	< 0.1			
Acenaphthene	DETSC 3301	0.1	mg/kg	< 0.1		< 0.1	< 0.1			
Fluorene	DETSC 3301	0.1	mg/kg	< 0.1		< 0.1	< 0.1			
Phenanthrene	DETSC 3301	0.1	mg/kg	< 0.1		< 0.1	< 0.1			
Anthracene	DETSC 3301	0.1	mg/kg	< 0.1		< 0.1	< 0.1			
Fluoranthene	DETSC 3301	0.1	mg/kg	< 0.1		< 0.1	< 0.1			
Pyrene	DETSC 3301	0.1	mg/kg	< 0.1		< 0.1	< 0.1			
Benzo(a)anthracene	DETSC 3301	0.1	mg/kg	< 0.1		< 0.1	< 0.1			
Chrysene	DETSC 3301	0.1	mg/kg	< 0.1		< 0.1	< 0.1			
Benzo(b)fluoranthene	DETSC 3301	0.1	mg/kg	< 0.1		< 0.1	< 0.1			
Benzo(k)fluoranthene	DETSC 3301	0.1	mg/kg	< 0.1		< 0.1	< 0.1			
Benzo(a)pyrene	DETSC 3301	0.1	mg/kg	< 0.1		< 0.1	< 0.1			
Indeno(1,2,3-c,d)pyrene	DETSC 3301	0.1	mg/kg	< 0.1		< 0.1	< 0.1			
Dibenzo(a,h)anthracene	DETSC 3301	0.1	mg/kg	< 0.1		< 0.1	< 0.1			
Benzo(g,h,i)perylene	DETSC 3301	0.1	mg/kg	< 0.1		< 0.1	< 0.1			
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg		< 0.10					
PAH 16 Total	DETSC 3301	1.6	mg/kg	< 1.6		< 1.6	< 1.6			
Phenols										
Phenol - Monohydric	DETSC 2130#	0.3	mg/kg	< 0.3		0.4	< 0.3			

Summary of Chemical Analysis

Soil Samples

Our Ref 23-10291

Client Ref UK23.6426

Contract Title Manchester Road, Sudden

Lab No	2164269	2164270
Sample ID	WS07 ES2	WS08 ES1
Depth	1.50-1.80	0.40-0.80
Other ID		
Sample Type	SOIL	SOIL
Sampling Date	26/04/2023	26/04/2023
Sampling Time	n/s	n/s

Test	Method	LOD	Units		
Chromatogram	*	0			
Preparation					
Moisture Content	DETSC 1004	0.1	%	15	9.4
Metals					
Arsenic	DETSC 2301#	0.2	mg/kg	6.7	3.4
Boron, Water Soluble (2.5:1)	DETSC 2311#	0.2	mg/kg		
Cadmium	DETSC 2301#	0.1	mg/kg	< 0.1	< 0.1
Chromium	DETSC 2301#	0.15	mg/kg	18	4.9
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	23	12
Lead	DETSC 2301#	0.3	mg/kg	11	44
Mercury	DETSC 2325#	0.05	mg/kg	< 0.05	0.47
Nickel	DETSC 2301#	1	mg/kg	30	4.5
Selenium	DETSC 2301#	0.5	mg/kg	< 0.5	< 0.5
Zinc	DETSC 2301#	1	mg/kg	52	21
Inorganics					
pH	DETSC 2008#		pH		5.7
Cyanide, Total	DETSC 2130#	0.1	mg/kg		
Organic matter	DETSC 2002#	0.1	%		
Sulphate Aqueous Extract as SO ₄ (2:1)	DETSC 2076#	10	mg/l		10
Sulphide	DETSC 2024*	10	mg/kg		
Sulphur as S, Total	DETSC 2320	0.01	%		< 0.01
Sulphate as SO ₄ , Total	DETSC 2321#	0.01	%		0.01
Petroleum Hydrocarbons					
Aliphatic C5-C6: HS_1D_AL	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aliphatic C6-C8: HS_1D_AL	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aliphatic C8-C10: HS_1D_AL	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aliphatic C10-C12: EH_CU_1D_AL	DETSC 3072#	1.5	mg/kg	< 1.5	< 1.5
Aliphatic C12-C16: EH_CU_1D_AL	DETSC 3072#	1.2	mg/kg	< 1.2	< 1.2
Aliphatic C16-C21: EH_CU_1D_AL	DETSC 3072#	1.5	mg/kg	< 1.5	< 1.5
Aliphatic C21-C35: EH_CU_1D_AL	DETSC 3072#	3.4	mg/kg	< 3.4	< 3.4
Aliphatic C5-C35: EH_CU+HS_1D_AL	DETSC 3072*	10	mg/kg	< 10	< 10
Aromatic C5-C7: HS_1D_AR	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aromatic C7-C8: HS_1D_AR	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aromatic C8-C10: HS_1D_AR	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aromatic C10-C12: EH_CU_1D_AR	DETSC 3072#	0.9	mg/kg	< 0.9	< 0.9
Aromatic C12-C16: EH_CU_1D_AR	DETSC 3072#	0.5	mg/kg	< 0.5	< 0.5
Aromatic C16-C21: EH_CU_1D_AR	DETSC 3072#	0.6	mg/kg	< 0.6	< 0.6
Aromatic C21-C35: EH_CU_1D_AR	DETSC 3072#	1.4	mg/kg	< 1.4	< 1.4
Aromatic C5-C35: EH_CU+HS_1D_AR	DETSC 3072*	10	mg/kg	< 10	< 10
TPH Ali/Aro Total C5-C35: EH_CU+HS_1D_Total	DETSC 3072*	10	mg/kg	< 10	< 10

Summary of Chemical Analysis

Soil Samples

Our Ref 23-10291

Client Ref UK23.6426

Contract Title Manchester Road, Sudden

Lab No	2164269	2164270
Sample ID	WS07 ES2	WS08 ES1
Depth	1.50-1.80	0.40-0.80
Other ID		
Sample Type	SOIL	SOIL
Sampling Date	26/04/2023	26/04/2023
Sampling Time	n/s	n/s

Test	Method	LOD	Units		
Benzene	DETSC 3321#	0.01	mg/kg		
Ethylbenzene	DETSC 3321#	0.01	mg/kg		
Toluene	DETSC 3321#	0.01	mg/kg		
Xylene	DETSC 3321#	0.01	mg/kg		
MTBE	DETSC 3321	0.01	mg/kg		
PAHs					
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03
Anthracene	DETSC 3303	0.03	mg/kg	< 0.03	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03
Pyrene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03
Chrysene	DETSC 3303	0.03	mg/kg	< 0.03	< 0.03
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03
Naphthalene	DETSC 3301	0.1	mg/kg		
Acenaphthylene	DETSC 3301	0.1	mg/kg		
Acenaphthene	DETSC 3301	0.1	mg/kg		
Fluorene	DETSC 3301	0.1	mg/kg		
Phenanthrene	DETSC 3301	0.1	mg/kg		
Anthracene	DETSC 3301	0.1	mg/kg		
Fluoranthene	DETSC 3301	0.1	mg/kg		
Pyrene	DETSC 3301	0.1	mg/kg		
Benzo(a)anthracene	DETSC 3301	0.1	mg/kg		
Chrysene	DETSC 3301	0.1	mg/kg		
Benzo(b)fluoranthene	DETSC 3301	0.1	mg/kg		
Benzo(k)fluoranthene	DETSC 3301	0.1	mg/kg		
Benzo(a)pyrene	DETSC 3301	0.1	mg/kg		
Indeno(1,2,3-c,d)pyrene	DETSC 3301	0.1	mg/kg		
Dibenzo(a,h)anthracene	DETSC 3301	0.1	mg/kg		
Benzo(g,h,i)perylene	DETSC 3301	0.1	mg/kg		
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	< 0.10	< 0.10
PAH 16 Total	DETSC 3301	1.6	mg/kg		
Phenols					
Phenol - Monohydric	DETSC 2130#	0.3	mg/kg		

WASTE ACCEPTANCE CRITERIA TESTING ANALYTICAL REPORT

Our Ref 23-10291

Client Ref UK23.6426

Contract Title Manchester Road, Sudden

Sample Id WS02 ES1 0.80-1.00

Sample Numbers 2164263 2164271

Date Analysed 10/05/2023

Test Results On Waste			WAC Limit Values		
Determinand and Method Reference	Units	Result	Inert Waste	SNRHW	Hazardous Waste
DETSC 2084# Total Organic Carbon	%	< 0.5	3	5	6
DETSC 2003# Loss On Ignition	%	0.63	n/a	n/a	10
DETSC 3321# BTEX	mg/kg	< 0.04	6	n/a	n/a
DETSC 3401# PCBs (7 congeners)	mg/kg	< 0.01	1	n/a	n/a
DETSC 3311# EPH (C10 - C40): EH_1D_Total	mg/kg	< 10	500	n/a	n/a
DETSC 3301 PAHs	mg/kg	< 1.6	100	n/a	n/a
DETSC2008# pH	pH Units		n/a	>6	n/a
DETS073* Acid Neutralisation Capacity (pH4)	mol/kg		n/a	TBE	TBE
DETS073* Acid Neutralisation Capacity (pH7)	mol/kg		n/a	TBE	TBE

Test Results On Leachate			WAC Limit Values		
Determinand and Method Reference	Conc in Eluate ug/l	Amount Leached* mg/kg	Limit values for LS10 Leachate		
	10:1	LS10	Inert Waste	SNRHW	Hazardous Waste
DETSC 2306 Arsenic as As	0.57	< 0.01	0.5	2	25
DETSC 2306 Barium as Ba	4.9	< 0.1	20	100	300
DETSC 2306 Cadmium as Cd	< 0.030	< 0.02	0.04	1	5
DETSC 2306 Chromium as Cr	0.34	< 0.1	0.5	10	70
DETSC 2306 Copper as Cu	3.6	0.036	2	50	100
DETSC 2306 Mercury as Hg	0.063	< 0.002	0.01	0.2	2
DETSC 2306 Molybdenum as Mo	< 1.1	< 0.1	0.5	10	30
DETSC 2306 Nickel as Ni	< 0.50	< 0.1	0.4	10	40
DETSC 2306 Lead as Pb	0.9	< 0.05	0.5	10	50
DETSC 2306 Antimony as Sb	< 0.17	< 0.05	0.06	0.7	5
DETSC 2306 Selenium as Se	0.26	< 0.03	0.1	0.5	7
DETSC 2306 Zinc as Zn	1.4	0.014	4	50	200
DETSC 2055 Chloride as Cl	1400	< 100	800	15,000	25,000
DETSC 2055* Fluoride as F	< 100	< 0.1	10	150	500
DETSC 2055 Sulphate as SO4	3000	< 100	1000	20,000	50,000
DETSC 2009* Total Dissolved Solids	32000	320	4000	60,000	100,000
DETSC 2130 Phenol Index	< 100	< 1	1	n/a	n/a
DETSC 2085 Dissolved Organic Carbon	6100	61	500	800	1000

Additional Information	
DETSC 2008 pH	7.1
DETSC 2009 Conductivity uS/cm	45.1
* Temperature*	17.0
Mass of Sample Kg*	0.100
Mass of dry Sample Kg*	0.095
Stage 1	
Volume of Leachant L2*	0.948
Volume of Eluate VE1*	0.9

TBE - To Be Evaluated
SNRHW - Stable Non-Reactive
Hazardous Waste

Disclaimer: The WAC limit values are provided for guidance only. DETS does not accept responsibility for errors or omissions. Values are correct at time of issue.

* DETS are accredited for the testing of leachates and not the leachate preparation stage which is unaccredited.

WASTE ACCEPTANCE CRITERIA TESTING ANALYTICAL REPORT

Our Ref 23-10291

Client Ref UK23.6426

Contract Title Manchester Road, Sudden

Sample Id WS07 ES2 1.50-1.80

Sample Numbers 2164269 2164272

Date Analysed 10/05/2023

Test Results On Waste			WAC Limit Values		
Determinand and Method Reference	Units	Result	Inert Waste	SNRHW	Hazardous Waste
DETSC 2084# Total Organic Carbon	%	1.0	3	5	6
DETSC 2003# Loss On Ignition	%	2.7	n/a	n/a	10
DETSC 3321# BTEX	mg/kg	< 0.04	6	n/a	n/a
DETSC 3401# PCBs (7 congeners)	mg/kg	< 0.01	1	n/a	n/a
DETSC 3311# EPH (C10 - C40): EH_1D_Total	mg/kg	< 10	500	n/a	n/a
DETSC 3301 PAHs	mg/kg	< 1.6	100	n/a	n/a
DETSC2008# pH	pH Units		n/a	>6	n/a
DETS073* Acid Neutralisation Capacity (pH4)	mol/kg		n/a	TBE	TBE
DETS073* Acid Neutralisation Capacity (pH7)	mol/kg		n/a	TBE	TBE

Test Results On Leachate			WAC Limit Values		
Determinand and Method Reference	Conc in Eluate ug/l	Amount Leached* mg/kg	Limit values for LS10 Leachate		
	10:1	LS10	Inert Waste	SNRHW	Hazardous Waste
DETSC 2306 Arsenic as As	< 0.16	< 0.01	0.5	2	25
DETSC 2306 Barium as Ba	8.2	< 0.1	20	100	300
DETSC 2306 Cadmium as Cd	< 0.030	< 0.02	0.04	1	5
DETSC 2306 Chromium as Cr	< 0.25	< 0.1	0.5	10	70
DETSC 2306 Copper as Cu	2.4	0.024	2	50	100
DETSC 2306 Mercury as Hg	0.051	< 0.002	0.01	0.2	2
DETSC 2306 Molybdenum as Mo	< 1.1	< 0.1	0.5	10	30
DETSC 2306 Nickel as Ni	2.2	< 0.1	0.4	10	40
DETSC 2306 Lead as Pb	0.21	< 0.05	0.5	10	50
DETSC 2306 Antimony as Sb	< 0.17	< 0.05	0.06	0.7	5
DETSC 2306 Selenium as Se	< 0.25	< 0.03	0.1	0.5	7
DETSC 2306 Zinc as Zn	4.9	0.049	4	50	200
DETSC 2055 Chloride as Cl	1600	< 100	800	15,000	25,000
DETSC 2055* Fluoride as F	< 100	< 0.1	10	150	500
DETSC 2055 Sulphate as SO4	16000	160	1000	20,000	50,000
DETSC 2009* Total Dissolved Solids	39000	390	4000	60,000	100,000
DETSC 2130 Phenol Index	< 100	< 1	1	n/a	n/a
DETSC 2085 Dissolved Organic Carbon	< 2000	< 50	500	800	1000

Additional Information	
DETSC 2008 pH	6.7
DETSC 2009 Conductivity uS/cm	55.0
* Temperature*	17.0
Mass of Sample Kg*	0.120
Mass of dry Sample Kg*	0.102
Stage 1	
Volume of Leachant L2*	0.998
Volume of Eluate VE1*	0.95

TBE - To Be Evaluated
SNRHW - Stable Non-Reactive
Hazardous Waste

Disclaimer: The WAC limit values are provided for guidance only. DETS does not accept responsibility for errors or omissions. Values are correct at time of issue.

* DETS are accredited for the testing of leachates and not the leachate preparation stage which is unaccredited.

WASTE ACCEPTANCE CRITERIA TESTING ANALYTICAL REPORT

Our Ref 23-10291

Client Ref UK23.6426

Contract Title Manchester Road, Sudden

Sample Id WS08 ES1 0.40-0.80

Sample Numbers 2164270 2164273

Date Analysed 10/05/2023

Test Results On Waste			WAC Limit Values		
Determinand and Method Reference	Units	Result	Inert Waste	SNRHW	Hazardous Waste
DETSC 2084# Total Organic Carbon	%	< 0.5	3	5	6
DETSC 2003# Loss On Ignition	%	2.2	n/a	n/a	10
DETSC 3321# BTEX	mg/kg	< 0.04	6	n/a	n/a
DETSC 3401# PCBs (7 congeners)	mg/kg	< 0.01	1	n/a	n/a
DETSC 3311# EPH (C10 - C40): EH_1D_Total	mg/kg	< 10	500	n/a	n/a
DETSC 3301 PAHs	mg/kg	< 1.6	100	n/a	n/a
DETSC2008# pH	pH Units		n/a	>6	n/a
DETS073* Acid Neutralisation Capacity (pH4)	mol/kg		n/a	TBE	TBE
DETS073* Acid Neutralisation Capacity (pH7)	mol/kg		n/a	TBE	TBE

Test Results On Leachate			WAC Limit Values		
Determinand and Method Reference	Conc in Eluate ug/l	Amount Leached* mg/kg	Limit values for LS10 Leachate		
	10:1	LS10	Inert Waste	SNRHW	Hazardous Waste
DETSC 2306 Arsenic as As	0.23	< 0.01	0.5	2	25
DETSC 2306 Barium as Ba	1.9	< 0.1	20	100	300
DETSC 2306 Cadmium as Cd	< 0.030	< 0.02	0.04	1	5
DETSC 2306 Chromium as Cr	< 0.25	< 0.1	0.5	10	70
DETSC 2306 Copper as Cu	3.3	0.033	2	50	100
DETSC 2306 Mercury as Hg	0.043	< 0.002	0.01	0.2	2
DETSC 2306 Molybdenum as Mo	< 1.1	< 0.1	0.5	10	30
DETSC 2306 Nickel as Ni	< 0.50	< 0.1	0.4	10	40
DETSC 2306 Lead as Pb	1.8	< 0.05	0.5	10	50
DETSC 2306 Antimony as Sb	0.49	< 0.05	0.06	0.7	5
DETSC 2306 Selenium as Se	< 0.25	< 0.03	0.1	0.5	7
DETSC 2306 Zinc as Zn	1.4	0.014	4	50	200
DETSC 2055 Chloride as Cl	1200	< 100	800	15,000	25,000
DETSC 2055* Fluoride as F	< 100	< 0.1	10	150	500
DETSC 2055 Sulphate as SO4	2100	< 100	1000	20,000	50,000
DETSC 2009* Total Dissolved Solids	12000	120	4000	60,000	100,000
DETSC 2130 Phenol Index	< 100	< 1	1	n/a	n/a
DETSC 2085 Dissolved Organic Carbon	4300	< 50	500	800	1000

Additional Information	
DETSC 2008 pH	6.6
DETSC 2009 Conductivity uS/cm	16.4
* Temperature*	17.0
Mass of Sample Kg*	0.110
Mass of dry Sample Kg*	0.100
Stage 1	
Volume of Leachant L2*	0.987
Volume of Eluate VE1*	0.93

TBE - To Be Evaluated
SNRHW - Stable Non-Reactive
Hazardous Waste

Disclaimer: The WAC limit values are provided for guidance only. DETS does not accept responsibility for errors or omissions. Values are correct at time of issue.

* DETS are accredited for the testing of leachates and not the leachate preparation stage which is unaccredited.

Summary of Asbestos Analysis

Soil Samples

Our Ref 23-10291

Client Ref UK23.6426

Contract Title Manchester Road, Sudden

Lab No	Sample ID	Material Type	Result	Comment*	Analyst
2164262	WS01 ES1 1.40-1.60	SOIL	NAD	none	Vicky Convery
2164263	WS02 ES1 0.80-1.00	SOIL	NAD	none	Vicky Convery
2164264	WS02 ES2 3.50-3.80	SOIL	NAD	none	Vicky Convery
2164265	WS04 ES1 0.20-0.40	SOIL	NAD	none	Vicky Convery
2164269	WS07 ES2 1.50-1.80	SOIL	NAD	none	Vicky Convery
2164270	WS08 ES1 0.40-0.80	SOIL	NAD	none	Vicky Convery

Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos. Samples are analysed by DETSC 1101 using polarised light microscopy in accordance with HSG248 and documented in-house methods. NAD = No Asbestos Detected. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'. Key: * - not included in laboratory scope of accreditation.

Information in Support of the Analytical Results

Our Ref 23-10291
 Client Ref UK23.6426
 Contract Manchester Road, Sudden

Containers Received & Deviating Samples

Lab No	Sample ID	Date Sampled	Containers Received	Holding time exceeded for tests	Inappropriate container for tests
2164262	WS01 ES1 1.40-1.60 SOIL	25/04/23	GJ 250ml, GJ 60ml		
2164263	WS02 ES1 0.80-1.00 SOIL	25/04/23	GJ 250ml, GJ 60ml, PT 1L		
2164264	WS02 ES2 3.50-3.80 SOIL	25/04/23	GJ 250ml, GJ 60ml, PT 1L		
2164265	WS04 ES1 0.20-0.40 SOIL	25/04/23	GJ 250ml, GJ 60ml, PT 1L		
2164266	WS05 ES1 0.50-0.80 SOIL	25/04/23	GJ 250ml, GJ 60ml		
2164267	WS06 ES1 1.20-1.50 SOIL	25/04/23	GJ 250ml, GJ 60ml		
2164268	WS07 ES1 3.70-4.00 SOIL	26/04/23	GJ 250ml, GJ 60ml, PT 1L		
2164269	WS07 ES2 1.50-1.80 SOIL	26/04/23	GJ 250ml, GJ 60ml, PT 1L		
2164270	WS08 ES1 0.40-0.80 SOIL	26/04/23	GJ 250ml, GJ 60ml, PT 1L		
2164271	WS02 ES1 0.80-1.00 LEACHATE	25/04/23	GJ 250ml, GJ 60ml, PT 1L		
2164272	WS07 ES2 1.50-1.80 LEACHATE	26/04/23	GJ 250ml, GJ 60ml, PT 1L		
2164273	WS08 ES1 0.40-0.80 LEACHATE	26/04/23	GJ 250ml, GJ 60ml, PT 1L		

Key: G-Glass J-Jar P-Plastic T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Soil Analysis Notes

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377.
 Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.
 The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-
 Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

Information in Support of the Analytical Results

List of HWOL Acronyms and Operators

Acronym	Description
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
2D	GC-GC - Double coil gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics only
AR	Aromatics only
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
_	Operator - underscore to separate acronyms (exception for +)
+	Operator to indicate cumulative eg. EH+HS_Total or EH_CU+HS_Total

Det	Acronym
Aliphatic C5-C6	HS_1D_AL
Aliphatic C6-C8	HS_1D_AL
Aliphatic C8-C10	HS_1D_AL
Aliphatic C10-C12	EH_CU_1D_AL
Aliphatic C12-C16	EH_CU_1D_AL
Aliphatic C16-C21	EH_CU_1D_AL
Aliphatic C21-C35	EH_CU_1D_AL
Aliphatic C5-C35	EH_CU+HS_1D_AL
Aromatic C5-C7	HS_1D_AR
Aromatic C7-C8	HS_1D_AR
Aromatic C8-C10	HS_1D_AR
Aromatic C10-C12	EH_CU_1D_AR
Aromatic C12-C16	EH_CU_1D_AR
Aromatic C16-C21	EH_CU_1D_AR
Aromatic C21-C35	EH_CU_1D_AR
Aromatic C5-C35	EH_CU+HS_1D_AR
TPH Ali/Aro Total C5-C35	EH_CU+HS_1D_Total
TPH (C10-C40)	EH_1D_Total

End of Report

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:

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



1PV8J-37W6Q-DG4Y1

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

Job name

UK23.6425 Manchester Road, Sudden

Description/Comments

Project

UK23.6425

Site

Manchester Road, Sudden

Classified by

Name: **Lee Anderson**
Date: **12 May 2023 14:42 GMT**
Telephone: **0113 8730211**

Company: **Environmental Strategies Ltd EPS**
10-12 East Parade
Leeds
LS1 2BH

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

Date

03 Dec 2020

Next 3 year Refresher due by Dec 2023

Purpose of classification

2 - Material Characterisation

Address of the waste

Manchester Road, Sudden

Post Code **OL11 3PT**

SIC for the process giving rise to the waste

Description of industry/producer giving rise to the waste

Redevelopment works to the existing Esso Petrol Station

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

Waste created during redevelopment works

Description of the waste

Soils persisting beneath site



Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	WS01 ES1/1.40-1.60/2023-04-25	1.4-1.6	Non Hazardous		3
2	WS02 ES1/0.80-1.00/2023-04-25	0.8-1.0	Non Hazardous		6
3	WS02 ES2/3.50-3.80/2023-04-25	3.5-3.8	Non Hazardous		8
4	WS04 ES1/0.20-0.40/2023-04-25	0.2-0.4	Non Hazardous		11
5	WS05 ES1/0.50-0.80/2023-04-25	0.5-0.8	Non Hazardous		14
6	WS06 ES1/1.20-1.50/2023-04-25	1.2-1.5	Non Hazardous		15
7	WS07 ES2/1.50-1.80/2023-04-26	1.5-1.8	Non Hazardous		16
8	WS08 ES1/0.40-0.80/2023-04-26	0.4-0.8	Non Hazardous		18

Related documents

#	Name	Description
1	23-10291.hwol	DETS North .hwol file used to populate the Job
2	DETS North	waste stream template used to create this Job

Report

Created by: Lee Anderson

Created date: 12 May 2023 14:42 GMT

Appendices	Page
Appendix A: Classifier defined and non GB MCL determinands	20
Appendix B: Rationale for selection of metal species	21
Appendix C: Version	22



Classification of sample: WS01 ES1/1.40-1.60/2023-04-25

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

Sample details

Sample name: **WS01 ES1/1.40-1.60/2023-04-25** LoW Code: **17: Construction and Demolition Wastes (including excavated soil from contaminated sites)**
Sample Depth: **1.4-1.6 m** Chapter: **17 05 04 (Soil and stones other than those mentioned in 17 05 03)**
Entry:

Hazard properties

None identified

Determinands

Moisture content: 0% Wet 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 trioxide }				2.6	mg/kg	1.32	3.433	mg/kg	0.000343 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
2	boron { diboron trioxide; boric oxide }				<0.2	mg/kg	3.22	<0.644	mg/kg	<0.0000644 %		<LOD
	005-008-00-8	215-125-8	1303-86-2									
3	copper { dicopper oxide; copper (I) oxide }				5.9	mg/kg	1.126	6.643	mg/kg	0.000664 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
4	lead { lead chromate }			1	3.4	mg/kg	1.56	5.303	mg/kg	0.00034 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
5	mercury { mercury dichloride }				<0.05	mg/kg	1.353	<0.0677	mg/kg	<0.00000677 %		<LOD
	080-010-00-X	231-299-8	7487-94-7									
6	nickel { nickel chromate }				4.2	mg/kg	2.976	12.5	mg/kg	0.00125 %	✓	
	028-035-00-7	238-766-5	14721-18-7									
7	selenium { nickel selenate }				<0.5	mg/kg	2.554	<1.277	mg/kg	<0.000128 %		<LOD
	028-031-00-5	239-125-2	15060-62-5									
8	zinc { zinc chromate }				16	mg/kg	2.774	44.386	mg/kg	0.00444 %	✓	
	024-007-00-3	236-878-9	13530-65-9									
9	pH				5.7	pH		5.7	pH	5.7 pH		
10	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 }				<0.1	mg/kg	1.884	<0.188	mg/kg	<0.0000188 %		<LOD
	006-007-00-5											
11	TPH (C6 to C40) petroleum group				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
12	benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
	601-020-00-8	200-753-7	71-43-2									
13	toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
	601-021-00-3	203-625-9	108-88-3									
14	ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
	601-023-00-4	202-849-4	100-41-4									
15	xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
	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]									



#	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								
16	naphthalene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
	601-052-00-2	202-049-5	91-20-3								
17	acenaphthylene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
		205-917-1	208-96-8								
18	acenaphthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
		201-469-6	83-32-9								
19	fluorene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
		201-695-5	86-73-7								
20	phenanthrene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
		201-581-5	85-01-8								
21	anthracene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
		204-371-1	120-12-7								
22	fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
		205-912-4	206-44-0								
23	pyrene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
		204-927-3	129-00-0								
24	benzo[a]anthracene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
	601-033-00-9	200-280-6	56-55-3								
25	chrysene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
	601-048-00-0	205-923-4	218-01-9								
26	benzo[b]fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
	601-034-00-4	205-911-9	205-99-2								
27	benzo[k]fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
	601-036-00-5	205-916-6	207-08-9								
28	benzo[a]pyrene; benzo[def]chrysene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
	601-032-00-3	200-028-5	50-32-8								
29	indeno[123-cd]pyrene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
		205-893-2	193-39-5								
30	dibenz[a,h]anthracene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
	601-041-00-2	200-181-8	53-70-3								
31	benzo[ghi]perylene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
		205-883-8	191-24-2								
32	monohydric phenols				<0.3 mg/kg		<0.3 mg/kg	<0.00003 %			<LOD
			P1186								
33	cadmium (non-pyrophoric); [1] cadmium oxide (non-pyrophoric) [2]				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
	048-002-00-0	231-152-8 [1] 215-146-2 [2]	7440-43-9 [1] 1306-19-0 [2]								
34	chromium { chromium(VI) oxide }				4.5 mg/kg	1.923	8.654 mg/kg	0.000865 %		✓	
	024-001-00-0	215-607-8	1333-82-0								
Total:									0.00932 %		

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
●	This determinand is defined in the EU CLP Table 3
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 2: Oxidizing "waste which may, generally by providing oxygen, cause or contribute to the combustion of other materials"

Force this Hazardous property to non hazardous because Specific hexavalent testing conducted showing no detections

Hazard Statements hit:

Ox. Sol. 1; H271 "May cause fire or explosion; strong oxidiser."



Because of determinand:

chromium(VI) oxide: (compound conc.: 0.00086%)



Classification of sample: WS02 ES1/0.80-1.00/2023-04-25

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

Sample details

Sample name: **WS02 ES1/0.80-1.00/2023-04-25** LoW Code: Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: **0.8-1.0 m** Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: **4.7%**
(wet weight correction)

Hazard properties

None identified

Determinands

Moisture content: 4.7% Wet 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 trioxide }	033-003-00-0	215-481-4	1327-53-3	0.9 mg/kg	1.32	1.132 mg/kg	0.000113 %	✓	
2	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }	215-160-9	1308-38-9		4.9 mg/kg	1.462	6.825 mg/kg	0.000683 %	✓	
3	chromium in chromium(VI) compounds { chromium(VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8			<1 mg/kg	2.27	<2.27 mg/kg	<0.000227 %		<LOD
4	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	3.5 mg/kg	1.126	3.755 mg/kg	0.000376 %	✓	
5	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	5 mg/kg	1.56	7.433 mg/kg	0.000477 %	✓	
6	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	<0.05 mg/kg	1.353	<0.0677 mg/kg	<0.00000677 %		<LOD
7	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7	4.7 mg/kg	2.976	13.331 mg/kg	0.00133 %	✓	
8	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5	<0.5 mg/kg	2.554	<1.277 mg/kg	<0.000128 %		<LOD
9	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9	20 mg/kg	2.774	52.875 mg/kg	0.00529 %	✓	
10	TPH (C6 to C40) petroleum group			TPH	<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
11	benzene	601-020-00-8	200-753-7	71-43-2	<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
12	toluene	601-021-00-3	203-625-9	108-88-3	<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
13	ethylbenzene	601-023-00-4	202-849-4	100-41-4	<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	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



#	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	naphthalene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %			<LOD
	601-052-00-2	202-049-5	91-20-3								
16	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %			<LOD
		205-917-1	208-96-8								
17	acenaphthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %			<LOD
		201-469-6	83-32-9								
18	fluorene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %			<LOD
		201-695-5	86-73-7								
19	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %			<LOD
		201-581-5	85-01-8								
20	anthracene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %			<LOD
		204-371-1	120-12-7								
21	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %			<LOD
		205-912-4	206-44-0								
22	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %			<LOD
		204-927-3	129-00-0								
23	benzo[a]anthracene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %			<LOD
	601-033-00-9	200-280-6	56-55-3								
24	chrysene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %			<LOD
	601-048-00-0	205-923-4	218-01-9								
25	benzo[b]fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %			<LOD
	601-034-00-4	205-911-9	205-99-2								
26	benzo[k]fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %			<LOD
	601-036-00-5	205-916-6	207-08-9								
27	benzo[a]pyrene; benzo[def]chrysene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %			<LOD
	601-032-00-3	200-028-5	50-32-8								
28	indeno[123-cd]pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %			<LOD
		205-893-2	193-39-5								
29	dibenz[a,h]anthracene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %			<LOD
	601-041-00-2	200-181-8	53-70-3								
30	benzo[ghi]perylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %			<LOD
		205-883-8	191-24-2								
31	cadmium (non-pyrophoric); [1] cadmium oxide (non-pyrophoric) [2]				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
	048-002-00-0	231-152-8 [1] 215-146-2 [2]	7440-43-9 [1] 1306-19-0 [2]								
32	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %			<LOD
	603-181-00-X	216-653-1	1634-04-4								
Total:									0.00969 %		

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 ES2/3.50-3.80/2023-04-25

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

Sample details

Sample name: **WS02 ES2/3.50-3.80/2023-04-25** LoW Code: Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: **3.5-3.8 m** Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Wet 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 trioxide }				14 mg/kg	1.32	18.485	mg/kg	0.00185 %	✓	
	033-003-00-0	215-481-4	1327-53-3								
2	boron { diboron trioxide; boric oxide }				0.9 mg/kg	3.22	2.898	mg/kg	0.00029 %	✓	
	005-008-00-8	215-125-8	1303-86-2								
3	copper { dicopper oxide; copper (I) oxide }				44 mg/kg	1.126	49.539	mg/kg	0.00495 %	✓	
	029-002-00-X	215-270-7	1317-39-1								
4	lead { lead chromate }			1	68 mg/kg	1.56	106.067	mg/kg	0.0068 %	✓	
	082-004-00-2	231-846-0	7758-97-6								
5	mercury { mercury dichloride }				0.25 mg/kg	1.353	0.338	mg/kg	0.0000338 %	✓	
	080-010-00-X	231-299-8	7487-94-7								
6	nickel { nickel chromate }				19 mg/kg	2.976	56.549	mg/kg	0.00565 %	✓	
	028-035-00-7	238-766-5	14721-18-7								
7	selenium { nickel selenate }				0.5 mg/kg	2.554	1.277	mg/kg	0.000128 %	✓	
	028-031-00-5	239-125-2	15060-62-5								
8	zinc { zinc chromate }				170 mg/kg	2.774	471.605	mg/kg	0.0472 %	✓	
	024-007-00-3	236-878-9	13530-65-9								
9	pH		PH		6.2 pH		6.2	pH	6.2 pH		
10	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 }				0.6 mg/kg	1.884	1.13	mg/kg	0.000113 %	✓	
	006-007-00-5										
11	TPH (C6 to C40) petroleum group		TPH		<10 mg/kg		<10	mg/kg	<0.001 %		<LOD
12	benzene				<0.01 mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
	601-020-00-8	200-753-7	71-43-2								
13	toluene				<0.01 mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
	601-021-00-3	203-625-9	108-88-3								
14	ethylbenzene				<0.01 mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
	601-023-00-4	202-849-4	100-41-4								
15	xylene				<0.01 mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
	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]								



#	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								
16	naphthalene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
	601-052-00-2	202-049-5	91-20-3								
17	acenaphthylene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
		205-917-1	208-96-8								
18	acenaphthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
		201-469-6	83-32-9								
19	fluorene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
		201-695-5	86-73-7								
20	phenanthrene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
		201-581-5	85-01-8								
21	anthracene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
		204-371-1	120-12-7								
22	fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
		205-912-4	206-44-0								
23	pyrene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
		204-927-3	129-00-0								
24	benzo[a]anthracene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
	601-033-00-9	200-280-6	56-55-3								
25	chrysene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
	601-048-00-0	205-923-4	218-01-9								
26	benzo[b]fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
	601-034-00-4	205-911-9	205-99-2								
27	benzo[k]fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
	601-036-00-5	205-916-6	207-08-9								
28	benzo[a]pyrene; benzo[def]chrysene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
	601-032-00-3	200-028-5	50-32-8								
29	indeno[123-cd]pyrene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
		205-893-2	193-39-5								
30	dibenz[a,h]anthracene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
	601-041-00-2	200-181-8	53-70-3								
31	benzo[ghi]perylene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
		205-883-8	191-24-2								
32	monohydric phenols				0.4 mg/kg		0.4 mg/kg	0.00004 %		✓	
			P1186								
33	cadmium (non-pyrophoric); [1] cadmium oxide (non-pyrophoric) [2]				0.2 mg/kg		0.2 mg/kg	0.00002 %		✓	
	048-002-00-0	231-152-8 [1] 215-146-2 [2]	7440-43-9 [1] 1306-19-0 [2]								
34	chromium { chromium(VI) oxide }				15 mg/kg	1.923	28.847 mg/kg	0.00288 %		✓	
	024-001-00-0	215-607-8	1333-82-0								
Total:									0.0711 %		

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
	This determinand is defined in the EU CLP Table 3
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 2: Oxidizing "waste which may, generally by providing oxygen, cause or contribute to the combustion of other materials"

Force this Hazardous property to non hazardous because Specific hexavalent testing conducted showing no detections

Hazard Statements hit:

Ox. Sol. 1; H271 "May cause fire or explosion; strong oxidiser."



Because of determinand:

chromium(VI) oxide: (compound conc.: 0.00288%)



Classification of sample: WS04 ES1/0.20-0.40/2023-04-25

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

Sample details

Sample name: **WS04 ES1/0.20-0.40/2023-04-25** LoW Code: **17: Construction and Demolition Wastes (including excavated soil from contaminated sites)**
Sample Depth: **0.2-0.4 m** Chapter: **17 05 04 (Soil and stones other than those mentioned in 17 05 03)**
Entry:

Hazard properties

None identified

Determinands

Moisture content: 0% Wet 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 trioxide }				2	mg/kg	1.32	2.641	mg/kg	0.000264 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
2	boron { diboron trioxide; boric oxide }				0.7	mg/kg	3.22	2.254	mg/kg	0.000225 %	✓	
	005-008-00-8	215-125-8	1303-86-2									
3	copper { dicopper oxide; copper (I) oxide }				6.9	mg/kg	1.126	7.769	mg/kg	0.000777 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
4	lead { lead chromate }			1	7.8	mg/kg	1.56	12.167	mg/kg	0.00078 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
5	mercury { mercury dichloride }				<0.05	mg/kg	1.353	<0.0677	mg/kg	<0.00000677 %		<LOD
	080-010-00-X	231-299-8	7487-94-7									
6	nickel { nickel chromate }				7.6	mg/kg	2.976	22.62	mg/kg	0.00226 %	✓	
	028-035-00-7	238-766-5	14721-18-7									
7	selenium { nickel selenate }				<0.5	mg/kg	2.554	<1.277	mg/kg	<0.000128 %		<LOD
	028-031-00-5	239-125-2	15060-62-5									
8	zinc { zinc chromate }				30	mg/kg	2.774	83.224	mg/kg	0.00832 %	✓	
	024-007-00-3	236-878-9	13530-65-9									
9	pH				10.9	pH		10.9	pH	10.9 pH		
10	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 }				0.2	mg/kg	1.884	0.377	mg/kg	0.0000377 %	✓	
	006-007-00-5											
11	TPH (C6 to C40) petroleum group				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
12	benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
	601-020-00-8	200-753-7	71-43-2									
13	toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
	601-021-00-3	203-625-9	108-88-3									
14	ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
	601-023-00-4	202-849-4	100-41-4									
15	xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
	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]									



#	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							
16	naphthalene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
17	acenaphthylene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		205-917-1	208-96-8							
18	acenaphthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		201-469-6	83-32-9							
19	fluorene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		201-695-5	86-73-7							
20	phenanthrene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		201-581-5	85-01-8							
21	anthracene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		204-371-1	120-12-7							
22	fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		205-912-4	206-44-0							
23	pyrene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		204-927-3	129-00-0							
24	benzo[a]anthracene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
25	chrysene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
26	benzo[b]fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
27	benzo[k]fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
28	benzo[a]pyrene; benzo[def]chrysene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
29	indeno[123-cd]pyrene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		205-893-2	193-39-5							
30	dibenz[a,h]anthracene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
31	benzo[ghi]perylene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		205-883-8	191-24-2							
32	monohydric phenols				<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<LOD
			P1186							
33	cadmium (non-pyrophoric); [1] cadmium oxide (non-pyrophoric) [2]				0.1 mg/kg		0.1 mg/kg	0.00001 %	✓	
	048-002-00-0	231-152-8 [1] 215-146-2 [2]	7440-43-9 [1] 1306-19-0 [2]							
34	chromium { chromium(VI) oxide }				8.5 mg/kg	1.923	16.346 mg/kg	0.00163 %	✓	
	024-001-00-0	215-607-8	1333-82-0							
Total:								0.0156 %		

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
●	This determinand is defined in the EU CLP Table 3
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 2: Oxidizing "waste which may, generally by providing oxygen, cause or contribute to the combustion of other materials"

Force this Hazardous property to non hazardous because Specific hexavalent testing conducted showing no detections

Hazard Statements hit:

Ox. Sol. 1; H271 "May cause fire or explosion; strong oxidiser."



Because of determinand:

chromium(VI) oxide: (compound conc.: 0.00163%)



Classification of sample: WS05 ES1/0.50-0.80/2023-04-25



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

Sample details

Sample name: **WS05 ES1/0.50-0.80/2023-04-25** LoW Code: **17: Construction and Demolition Wastes (including excavated soil from contaminated sites)**
Sample Depth: **0.5-0.8 m** Chapter: **17 05 04 (Soil and stones other than those mentioned in 17 05 03)**
Entry:

Hazard properties

None identified

Determinands

Moisture content: 0% Wet 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	pH		PH		8	pH		8	pH	8pH		
2	TPH (C6 to C40) petroleum group		TPH		<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
3	benzene	601-020-00-8	200-753-7	71-43-2	<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
4	toluene	601-021-00-3	203-625-9	108-88-3	<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
5	ethylbenzene	601-023-00-4	202-849-4	100-41-4	<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
6	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
7	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4	<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
8	sulfur { sulphur dichloride }	016-013-00-X	234-129-0	10545-99-0	500	mg/kg	3.211	1605.66	mg/kg	0.161 %	✓	
Total:										0.162 %		

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



Classification of sample: WS06 ES1/1.20-1.50/2023-04-25

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

Sample details

Sample name: **WS06 ES1/1.20-1.50/2023-04-25** LoW Code: **17: Construction and Demolition Wastes (including excavated soil from contaminated sites)**
Sample Depth: **1.2-1.5 m** Chapter: **17 05 04 (Soil and stones other than those mentioned in 17 05 03)**
Entry:

Hazard properties

None identified

Determinands

Moisture content: 0% Wet 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	pH				8.1 pH		8.1	pH	8.1 pH		
2	TPH (C6 to C40) petroleum group				<10 mg/kg		<10	mg/kg	<0.001 %		<LOD
3	benzene				<0.01 mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
4	toluene				<0.01 mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
5	ethylbenzene				<0.01 mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
6	xylene				<0.01 mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
7	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.01 mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
8	sulfur { sulphur dichloride }				300 mg/kg	3.211	963.396	mg/kg	0.0963 %	✓	
Total:									0.0973 %		

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



Classification of sample: WS07 ES2/1.50-1.80/2023-04-26

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

Sample details

Sample name: **WS07 ES2/1.50-1.80/2023-04-26** LoW Code: Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: **1.5-1.8 m** Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: **15%**
(wet weight correction)

Hazard properties

None identified

Determinands

Moisture content: 15% Wet 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 trioxide }	033-003-00-0	215-481-4	1327-53-3	6.7 mg/kg	1.32	7.519 mg/kg	0.000752 %	✔	
2	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }	215-160-9	1308-38-9		18 mg/kg	1.462	22.362 mg/kg	0.00224 %	✔	
3	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8			<1 mg/kg	2.27	<2.27 mg/kg	<0.000227 %		<LOD
4	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	23 mg/kg	1.126	22.011 mg/kg	0.0022 %	✔	
5	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	11 mg/kg	1.56	14.584 mg/kg	0.000935 %	✔	
6	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	<0.05 mg/kg	1.353	<0.0677 mg/kg	<0.00000677 %		<LOD
7	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7	30 mg/kg	2.976	75.895 mg/kg	0.00759 %	✔	
8	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5	<0.5 mg/kg	2.554	<1.277 mg/kg	<0.000128 %		<LOD
9	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9	52 mg/kg	2.774	122.617 mg/kg	0.0123 %	✔	
10	TPH (C6 to C40) petroleum group			TPH	<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
11	naphthalene	601-052-00-2	202-049-5	91-20-3	<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
12	acenaphthylene	205-917-1	208-96-8		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
13	acenaphthene	201-469-6	83-32-9		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
14	fluorene	201-695-5	86-73-7		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
15	phenanthrene	201-581-5	85-01-8		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD



#	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								
16	anthracene	204-371-1	120-12-7		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %			<LOD
17	fluoranthene	205-912-4	206-44-0		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %			<LOD
18	pyrene	204-927-3	129-00-0		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %			<LOD
19	benzo[a]anthracene	601-033-00-9	200-280-6		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %			<LOD
20	chrysene	601-048-00-0	205-923-4		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %			<LOD
21	benzo[b]fluoranthene	601-034-00-4	205-911-9		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %			<LOD
22	benzo[k]fluoranthene	601-036-00-5	205-916-6		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %			<LOD
23	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %			<LOD
24	indeno[123-cd]pyrene	205-893-2	193-39-5		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %			<LOD
25	dibenz[a,h]anthracene	601-041-00-2	200-181-8		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %			<LOD
26	benzo[ghi]perylene	205-883-8	191-24-2		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %			<LOD
27	cadmium (non-pyrophoric); [1] cadmium oxide (non-pyrophoric) [2]	048-002-00-0	231-152-8 [1] 215-146-2 [2]		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
Total:									0.0274 %		

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: WS08 ES1/0.40-0.80/2023-04-26

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

Sample details

Sample name: **WS08 ES1/0.40-0.80/2023-04-26** LoW Code: Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: **0.4-0.8 m** Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: **9.4%**
(wet weight correction)

Hazard properties

None identified

Determinands

Moisture content: 9.4% Wet 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 trioxide }	033-003-00-0	215-481-4	1327-53-3	3.4 mg/kg	1.32	4.067 mg/kg	0.000407 %	✓	
2	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }	215-160-9	1308-38-9		4.9 mg/kg	1.462	6.488 mg/kg	0.000649 %	✓	
3	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8			<1 mg/kg	2.27	<2.27 mg/kg	<0.000227 %		<LOD
4	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	12 mg/kg	1.126	12.241 mg/kg	0.00122 %	✓	
5	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	44 mg/kg	1.56	62.18 mg/kg	0.00399 %	✓	
6	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	0.47 mg/kg	1.353	0.576 mg/kg	0.0000576 %	✓	
7	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7	4.5 mg/kg	2.976	12.134 mg/kg	0.00121 %	✓	
8	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5	<0.5 mg/kg	2.554	<1.277 mg/kg	<0.000128 %		<LOD
9	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9	21 mg/kg	2.774	52.781 mg/kg	0.00528 %	✓	
10	pH		PH		5.7 pH		5.7 pH	5.7 pH		
11	TPH (C6 to C40) petroleum group		TPH		<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
12	naphthalene	601-052-00-2	202-049-5	91-20-3	<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
13	acenaphthylene		205-917-1	208-96-8	<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
14	acenaphthene		201-469-6	83-32-9	<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
15	fluorene		201-695-5	86-73-7	<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD



#	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								
16	phenanthrene	201-581-5	85-01-8		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %			<LOD
17	anthracene	204-371-1	120-12-7		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %			<LOD
18	fluoranthene	205-912-4	206-44-0		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %			<LOD
19	pyrene	204-927-3	129-00-0		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %			<LOD
20	benzo[a]anthracene	200-280-6	56-55-3		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %			<LOD
21	chrysene	205-923-4	218-01-9		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %			<LOD
22	benzo[b]fluoranthene	205-911-9	205-99-2		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %			<LOD
23	benzo[k]fluoranthene	205-916-6	207-08-9		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %			<LOD
24	benzo[a]pyrene; benzo[def]chrysene	200-028-5	50-32-8		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %			<LOD
25	indeno[123-cd]pyrene	205-893-2	193-39-5		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %			<LOD
26	dibenz[a,h]anthracene	200-181-8	53-70-3		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %			<LOD
27	benzo[ghi]perylene	205-883-8	191-24-2		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %			<LOD
28	cadmium (non-pyrophoric); [1] cadmium oxide (non-pyrophoric) [2]	231-152-8 [1] 215-146-2 [2]	7440-43-9 [1] 1306-19-0 [2]		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
29	sulfur { sulphur dichloride }	234-129-0	10545-99-0		<100 mg/kg	3.211	<321.132 mg/kg	<0.0321 %			<LOD
Total:									0.0463 %		

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

- **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

- **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

- **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

- **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

▪ **monohydric phenols** (CAS Number: P1186)

Description/Comments: Combined hazards statements from harmonised entries in CLP for phenol, cresols and xylenols (604-001-00-2, 604-004-00-9, 604-006-00-X)

Data source: CLP combined data

Data source date: 26 Mar 2019

Hazard Statements: Muta. 2; H341, Acute Tox. 3; H331, Acute Tox. 3; H311, Acute Tox. 3; H301, STOT RE 2; H373, Skin Corr. 1B; H314, Skin Corr. 1B; H314 >= 3 %, Skin Irrit. 2; H315 1 £ conc. < 3 %, Eye Irrit. 2; H319 1 £ conc. < 3 %, Aquatic Chronic 2; H411

▪ **chromium(VI) oxide** (EC Number: 215-607-8, CAS Number: 1333-82-0)

EU CLP index number: 024-001-00-0

Description/Comments:

Data source: Regulation 1272/2008/EC - Classification, labelling and packaging of substances and mixtures. (CLP)

)

Hazard Statements: Ox. Sol. 1; H271, Carc. 1A; H350, Muta. 1B; H340, Repr. 2; H361f, Acute Tox. 2; H330, Acute Tox. 3; H311, Acute Tox. 3; H301, STOT RE 1; H372, Skin Corr. 1A; H314, Resp. Sens. 1; H334, Skin Sens. 1; H317, Aquatic Acute 1; H400, Aquatic Chronic 1; H410, STOT SE 3; H335 >= 1 %

▪ **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

Appendix B: Rationale for selection of metal species

arsenic {arsenic trioxide}

Reasonable case CLP species based on hazard statements/molecular weight and most common (stable) oxide of arsenic. Industrial sources include: smelting; main precursor to other arsenic compounds (edit as required)

boron {diboron trioxide; boric oxide}

Reasonable case CLP species based on hazard statements/ molecular weight, physical form and low solubility. Industrial sources include: fluxing agent for glass/enamels; additive for fibre optics, borosilicate glass (edit as required)

copper {dicopper oxide; copper (I) oxide}

Reasonable case CLP species based on hazard statements/molecular weight and insolubility in water. Industrial sources include: oxidised copper metal, brake pads, pigments, antifouling paints, fungicide. (edit as required) Worse case copper sulphate is very soluble and likely to have been leached away if ever present and/or not enough soluble sulphate detected. (edit as required)

lead {lead chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

mercury {mercury dichloride}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

nickel {nickel chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

selenium {nickel selenate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)



zinc {zinc chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

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}

Harmonised group entry used as most reasonable case as complex cyanides and those specified elsewhere in the annex are not likely to be present in this soil: [Note conversion factor based on a worst case compound: sodium cyanide] (edit as required)

chromium {chromium(VI) oxide}

Worst case

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

Reasonable case species based on hazard statements/molecular weight. Industrial sources include: tanning, pigment in paint, inks and glass (edit as required)

chromium in chromium(VI) compounds {chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex}

Worst case species based on hazard statements/molecular weight (edit as required)

sulfur {sulphur dichloride}

Worse case scenario assumed

Appendix C: Version

HazWasteOnline Classification Engine: **WM3 1st Edition v1.2.GB - Oct 2021**

HazWasteOnline Classification Engine Version: 2023.111.5569.10274 (22 Apr 2023)

HazWasteOnline Database: 2023.111.5569.10274 (22 Apr 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:

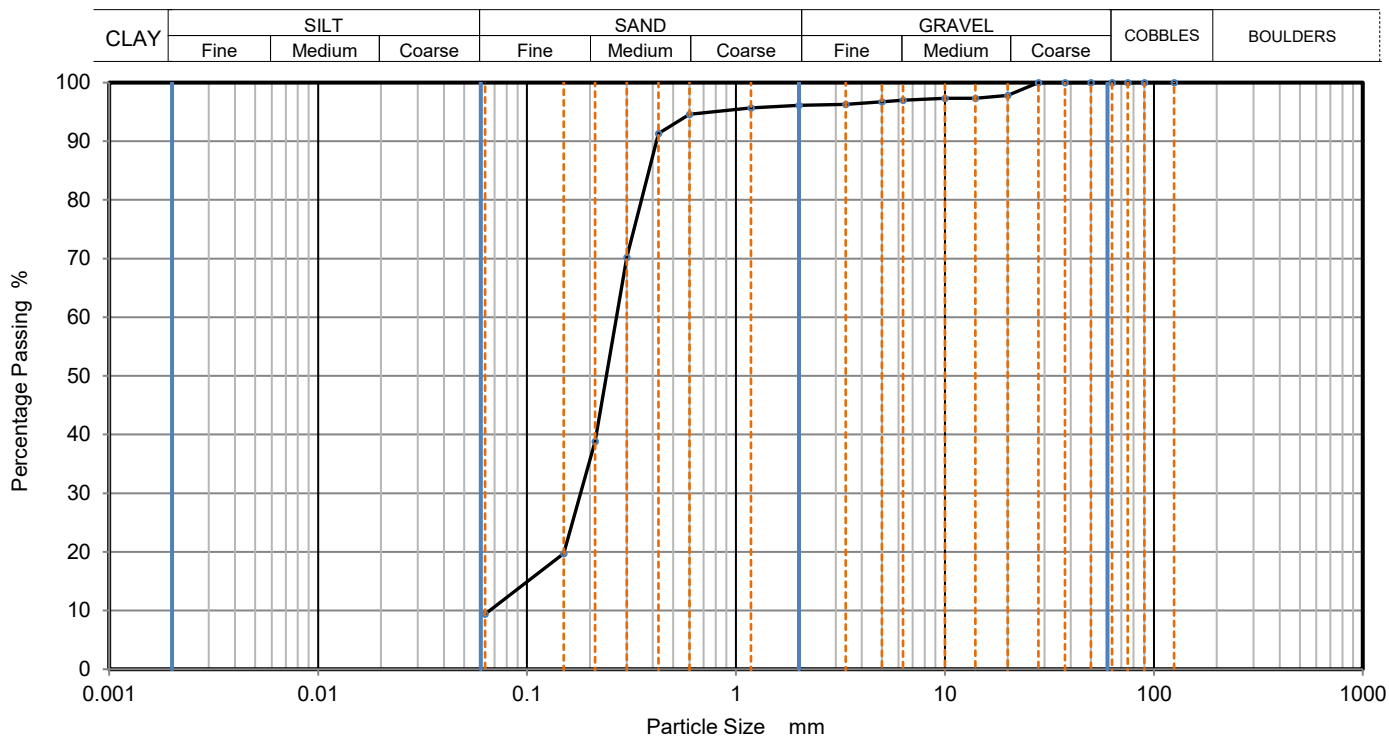
2020 No. 1540 of 16th December 2020

GB MCL List - version 1.1 of 09 June 2021

APPENDIX J

Laboratory Results – Geotechnical

GQF-008-55 Issue 01 - Oct 22	PARTICLE SIZE DISTRIBUTION			Job Ref	J235496
				Borehole/Pit No.	WS01
Project Name	Manchester Road, Sudden			Sample No.	1
Soil Description	Brown slightly gravelly silty SAND.			Depth, m	1.40
Specimen Reference		Specimen Depth	m	Sample Type	D
Test Method	BS1377:Part 2:1990, clause 9.2			KeyLAB ID	TTLP202305160



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	98		
14	97		
10	97		
6.3	97		
5	97		
3.35	96		
2	96		
1.18	96		
0.6	95		
0.425	91		
0.3	70		
0.212	39		
0.15	20		
0.063	9		

Dry Mass of sample, g

1045

Sample Proportions	% dry mass
Very coarse	0
Gravel	4
Sand	87
Fines <0.063mm	9

Grading Analysis	
D100	mm
D60	mm
D30	mm
D10	mm
Uniformity Coefficient	4
Curvature Coefficient	1.8

Remarks

Preparation and testing in accordance with BS1377 unless noted below

Date Printed

19/05/2023

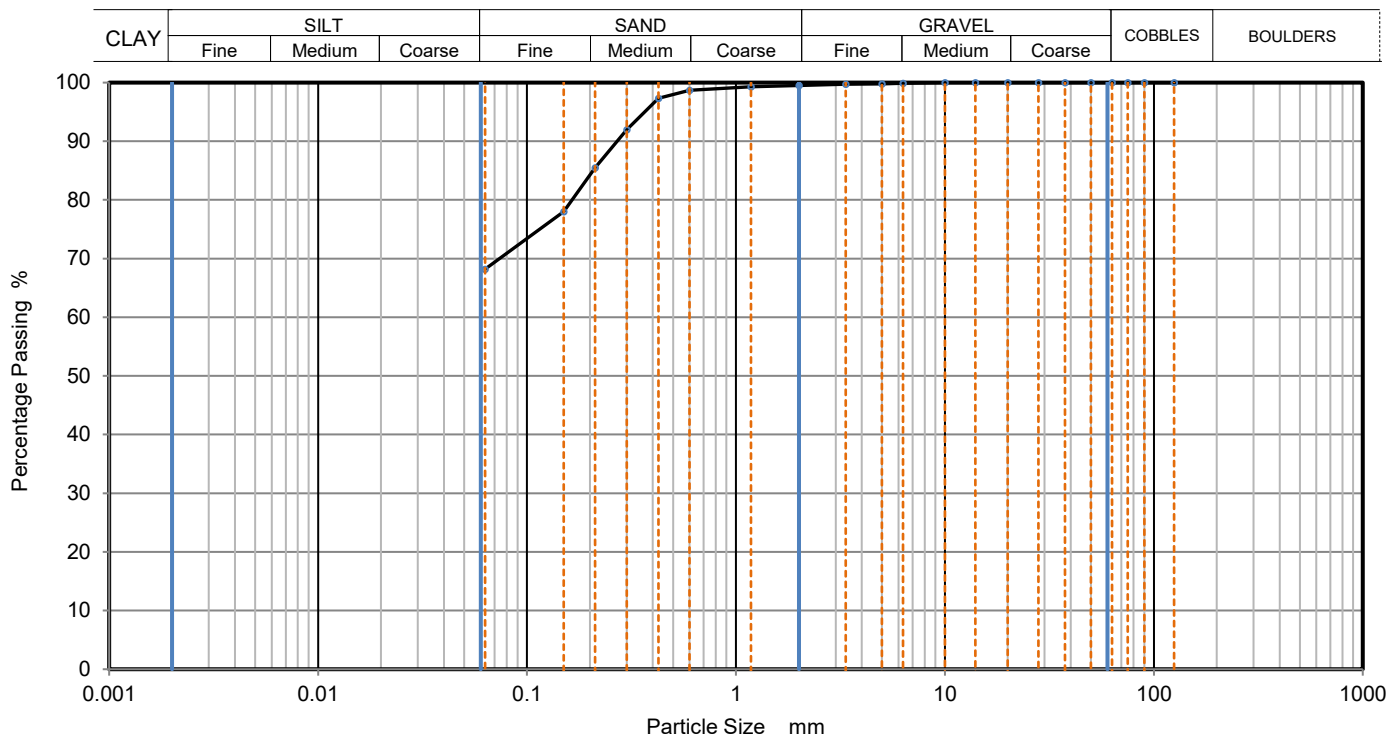


7758



PSD

GQF-008-55 Issue 01 - Oct 22	PARTICLE SIZE DISTRIBUTION			Job Ref	J235496
				Borehole/Pit No.	WS07
Project Name	Manchester Road, Sudden			Sample No.	1
Soil Description	Brown slightly sandy slightly gravelly CLAY.			Depth, m	1.80
Specimen Reference		Specimen Depth	m	Sample Type	D
Test Method	BS1377:Part 2:1990, clause 9.2			KeyLAB ID	TTLP202305162



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	100		
1.18	99		
0.6	99		
0.425	97		
0.3	92		
0.212	86		
0.15	78		
0.063	68		

Dry Mass of sample, g

557

Sample Proportions	% dry mass
Very coarse	0
Gravel	1
Sand	31
Fines <0.063mm	68

Grading Analysis	
D100	mm
D60	mm
D30	mm
D10	mm
Uniformity Coefficient	
Curvature Coefficient	

Remarks

Preparation and testing in accordance with BS1377 unless noted below

Date Printed

19/05/2023

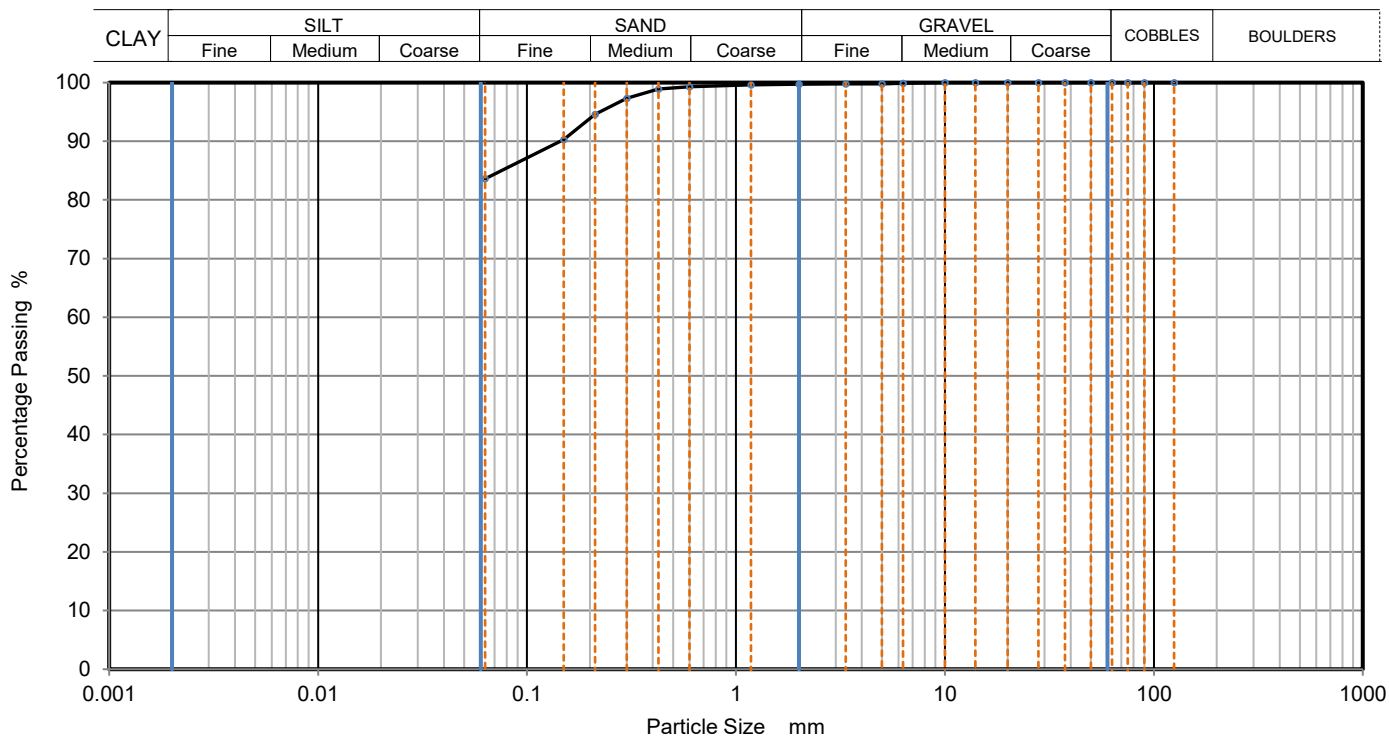


7758



PSD

GQF-008-55 Issue 01 - Oct 22	PARTICLE SIZE DISTRIBUTION			Job Ref	J235496
				Borehole/Pit No.	WS07
Project Name	Manchester Road, Sudden			Sample No.	4
Soil Description	Brown slightly sandy CLAY.			Depth, m	2.50
Specimen Reference		Specimen Depth	m	Sample Type	D
Test Method	BS1377:Part 2:1990, clause 9.2			KeyLAB ID	TTLP202305164



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	100		
1.18	100		
0.6	99		
0.425	99		
0.3	97		
0.212	95		
0.15	90		
0.063	84		

Dry Mass of sample, g

1325

Sample Proportions	% dry mass
Very coarse	0
Gravel	0
Sand	16
Fines <0.063mm	84

Grading Analysis	
D100	mm
D60	mm
D30	mm
D10	mm
Uniformity Coefficient	
Curvature Coefficient	

Remarks

Preparation and testing in accordance with BS1377 unless noted below

Date Printed

19/05/2023

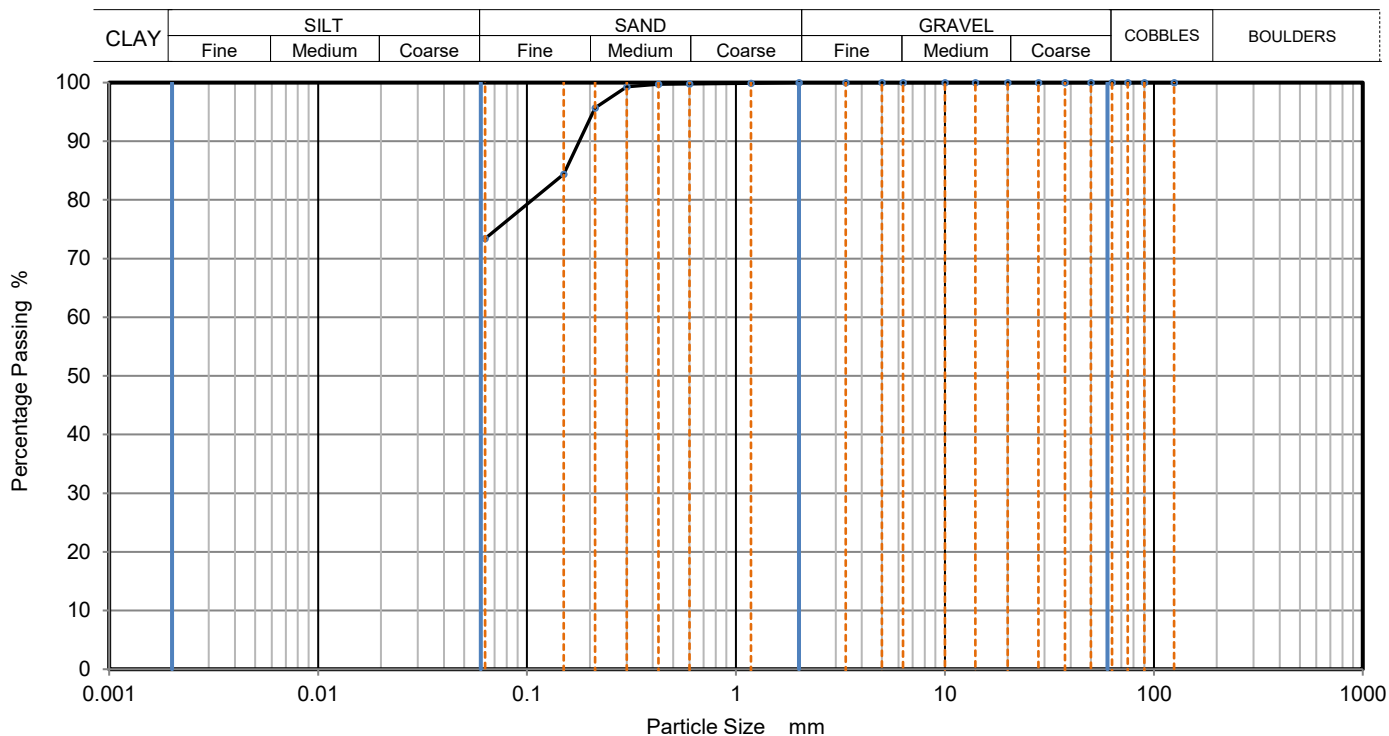


7758



PSD

GQF-008-55 Issue 01 - Oct 22	PARTICLE SIZE DISTRIBUTION			Job Ref	J235496
				Borehole/Pit No.	WS07
Project Name	Manchester Road, Sudden			Sample No.	3
Soil Description	Brown slightly sandy clayey SILT.			Depth, m	3.50
Specimen Reference		Specimen Depth	m	Sample Type	D
Test Method	BS1377:Part 2:1990, clause 9.2			KeyLAB ID	TTLP202305163



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	100		
1.18	100		
0.6	100		
0.425	100		
0.3	99		
0.212	96		
0.15	84		
0.063	73		

Dry Mass of sample, g

641

Sample Proportions	% dry mass
Very coarse	0
Gravel	0
Sand	27
Fines <0.063mm	73

Grading Analysis	
D100	mm
D60	mm
D30	mm
D10	mm
Uniformity Coefficient	
Curvature Coefficient	

Remarks

Preparation and testing in accordance with BS1377 unless noted below

Date Printed

19/05/2023

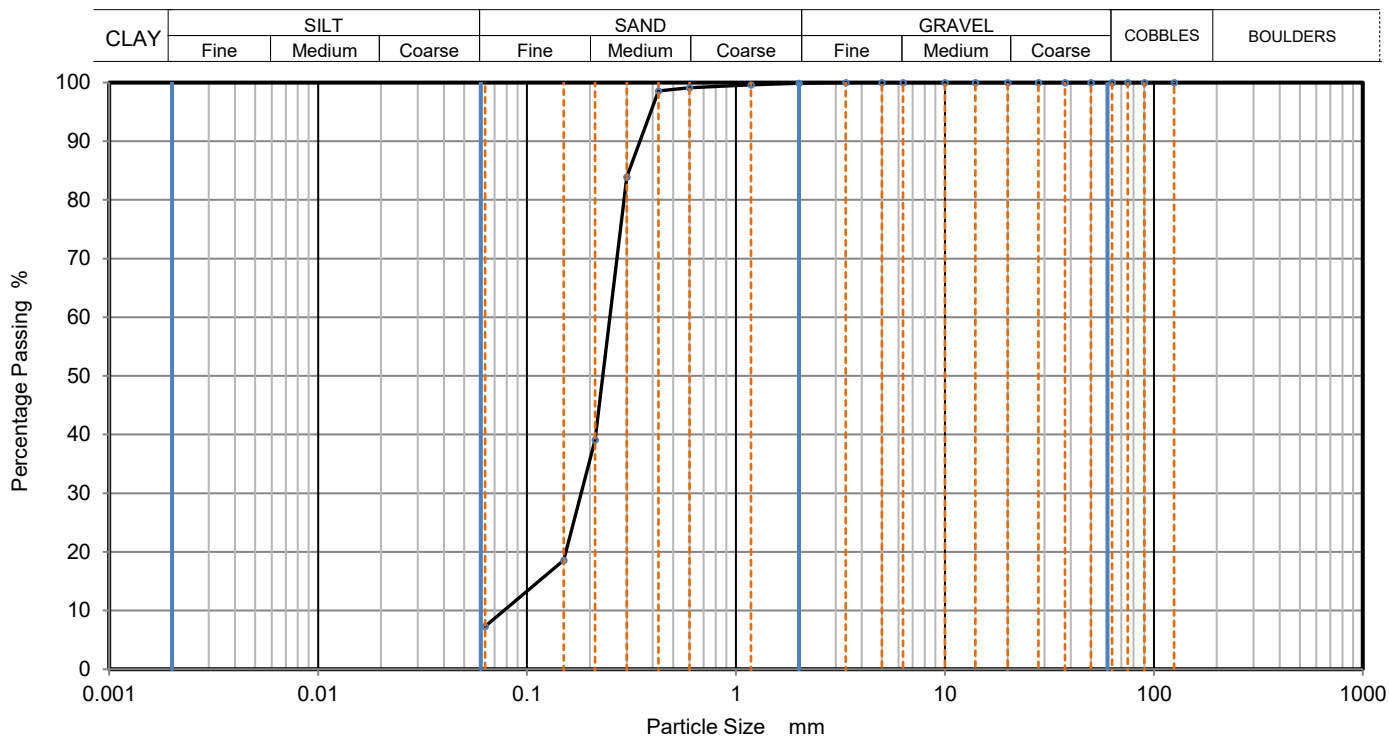


7758



PSD

GQF-008-55 Issue 01 - Oct 22	PARTICLE SIZE DISTRIBUTION			Job Ref	J235496
				Borehole/Pit No.	WS08
Project Name	Manchester Road, Sudden			Sample No.	1
Soil Description	Brown silty SAND.			Depth, m	0.80
Specimen Reference		Specimen Depth	m	Sample Type	D
Test Method	BS1377:Part 2:1990, clause 9.2			KeyLAB ID	TTLP202305165



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	100		
1.18	100		
0.6	99		
0.425	99		
0.3	84		
0.212	39		
0.15	19		
0.063	7		

Dry Mass of sample, g

2520

Sample Proportions	% dry mass
Very coarse	0
Gravel	0
Sand	93
Fines <0.063mm	7

Grading Analysis	
D100	mm
D60	mm
D30	mm
D10	mm
Uniformity Coefficient	3.2
Curvature Coefficient	1.7

Remarks

Preparation and testing in accordance with BS1377 unless noted below

Date Printed

19/05/2023

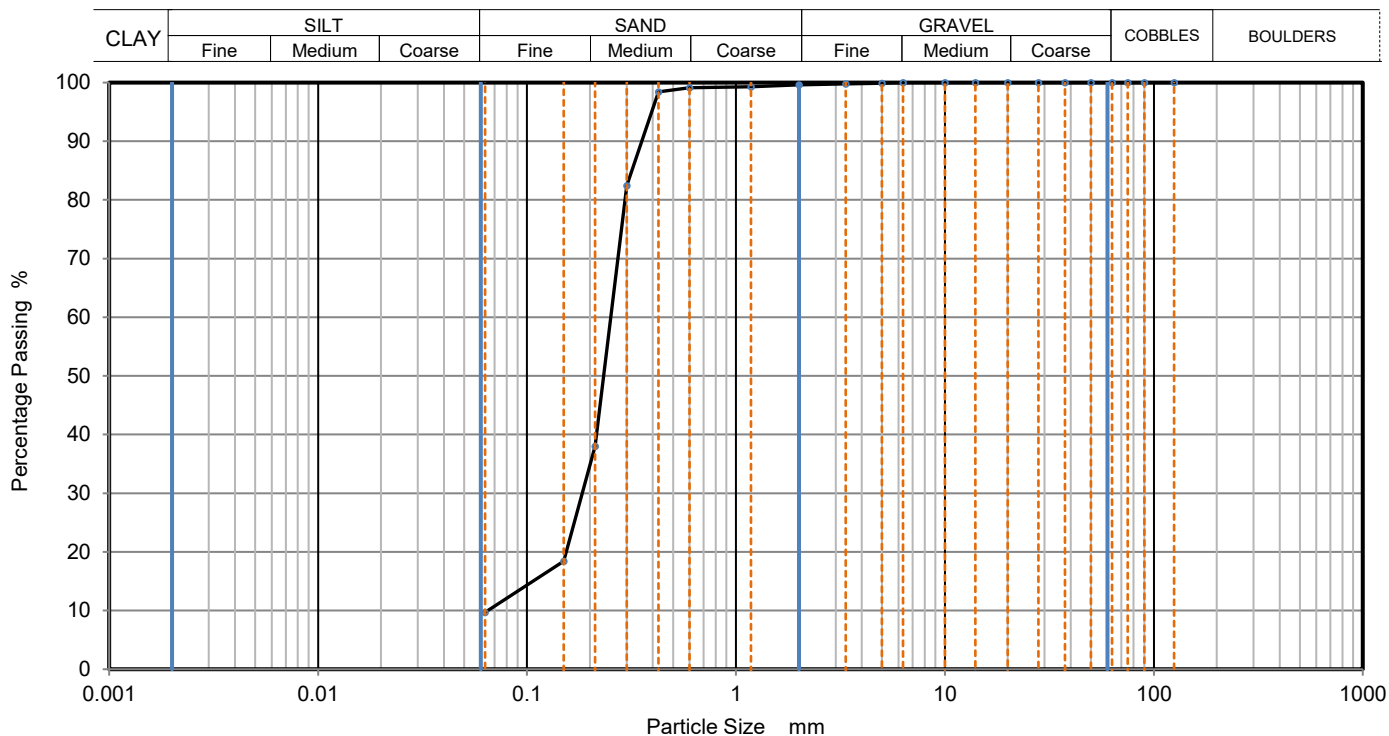


7758



PSD

GQF-008-55 Issue 01 - Oct 22	PARTICLE SIZE DISTRIBUTION			Job Ref	J235496
				Borehole/Pit No.	WS08
Project Name	Manchester Road, Sudden			Sample No.	2
Soil Description	Brown silty SAND.			Depth, m	2.80
Specimen Reference		Specimen Depth	m	Sample Type	D
Test Method	BS1377:Part 2:1990, clause 9.2			KeyLAB ID	TTLP202305167



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	100		
1.18	99		
0.6	99		
0.425	98		
0.3	82		
0.212	38		
0.15	18		
0.063	10		

Dry Mass of sample, g

1166

Sample Proportions	% dry mass
Very coarse	0
Gravel	0
Sand	90
Fines <0.063mm	10

Grading Analysis	
D100	mm
D60	mm
D30	mm
D10	mm
Uniformity Coefficient	3.9
Curvature Coefficient	2.1

Remarks

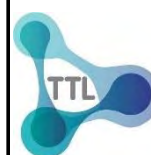
Preparation and testing in accordance with BS1377 unless noted below

Date Printed

19/05/2023



7758



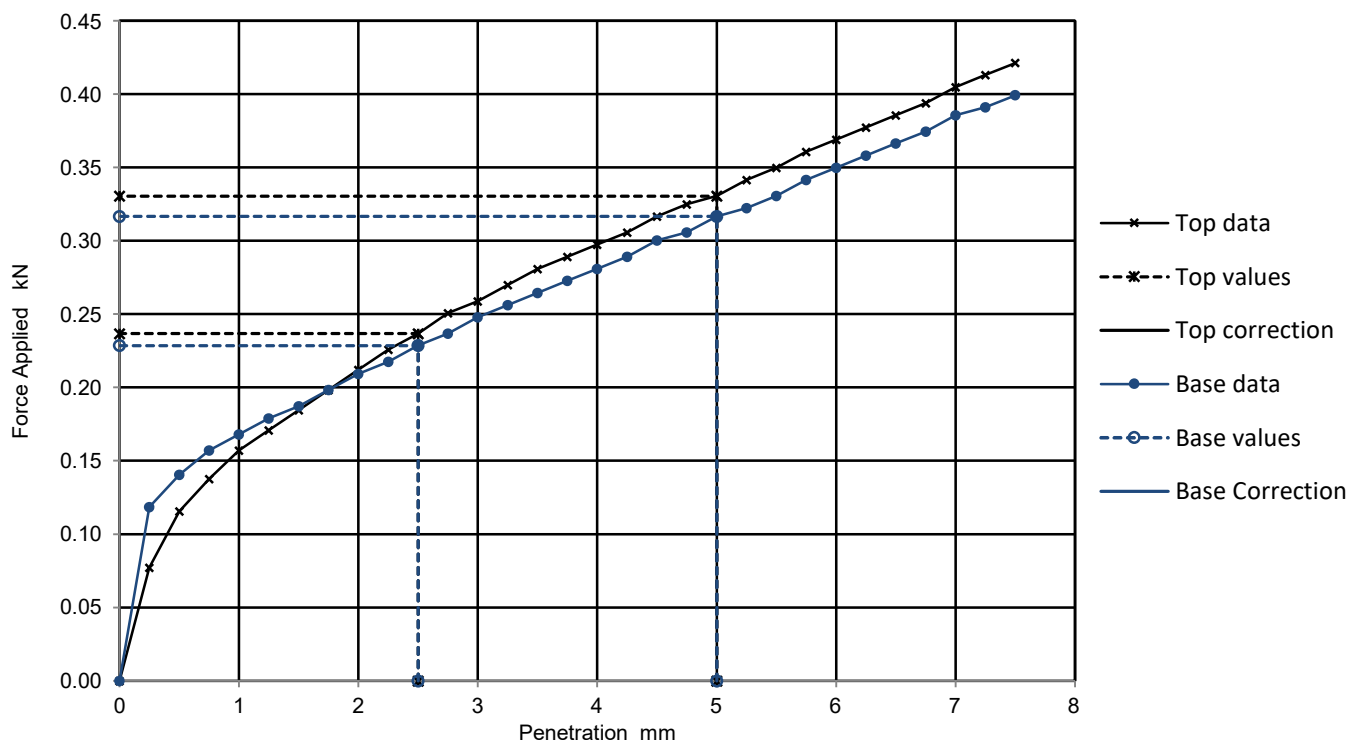
PSD

GQF-008-36 Issue 01 - Oct 22	California Bearing Ratio (CBR)			Job Ref	J235496
				Borehole/Pit No.	WS07
Project Name	Manchester Road, Sudden			Sample No.	1
Soil Description	Greyish brown slightly sandy CLAY.			Depth m	0.30
Specimen Reference		Specimen Depth	m	Sample Type	B
Specimen Description				KeyLAB ID	TTLP202305161
Test Method	BS1377 : Part 4 : 1990, clause 7			CBR Test Number	1

Specimen Preparation

Condition	REMOULDED		Soaking details	Not soaked	
Details	Recompacted with specified standard effort using 2.5kg rammer		Period of soaking	days	
			Time to surface	days	
			Amount of swell recorded	mm	
Material retained on 20mm sieve removed	0	%	Dry density after soaking	Mg/m ³	
Initial Specimen details	Bulk density	2.01	Mg/m ³	Surcharge applied	15 kg
	Dry density	1.64	Mg/m ³		9 kPa
	Moisture content	22.6	%		

Force v Penetration Plots



Results

TOP
BASE

Curve correction applied	CBR Values, %			
	2.5mm	5mm	Highest	Average
No	1.8	1.7	1.8	1.8
No	1.7	1.6	1.7	

Moisture Content	%
23.1	
22.9	

Remarks



CBR

Date Printed

19/05/2023

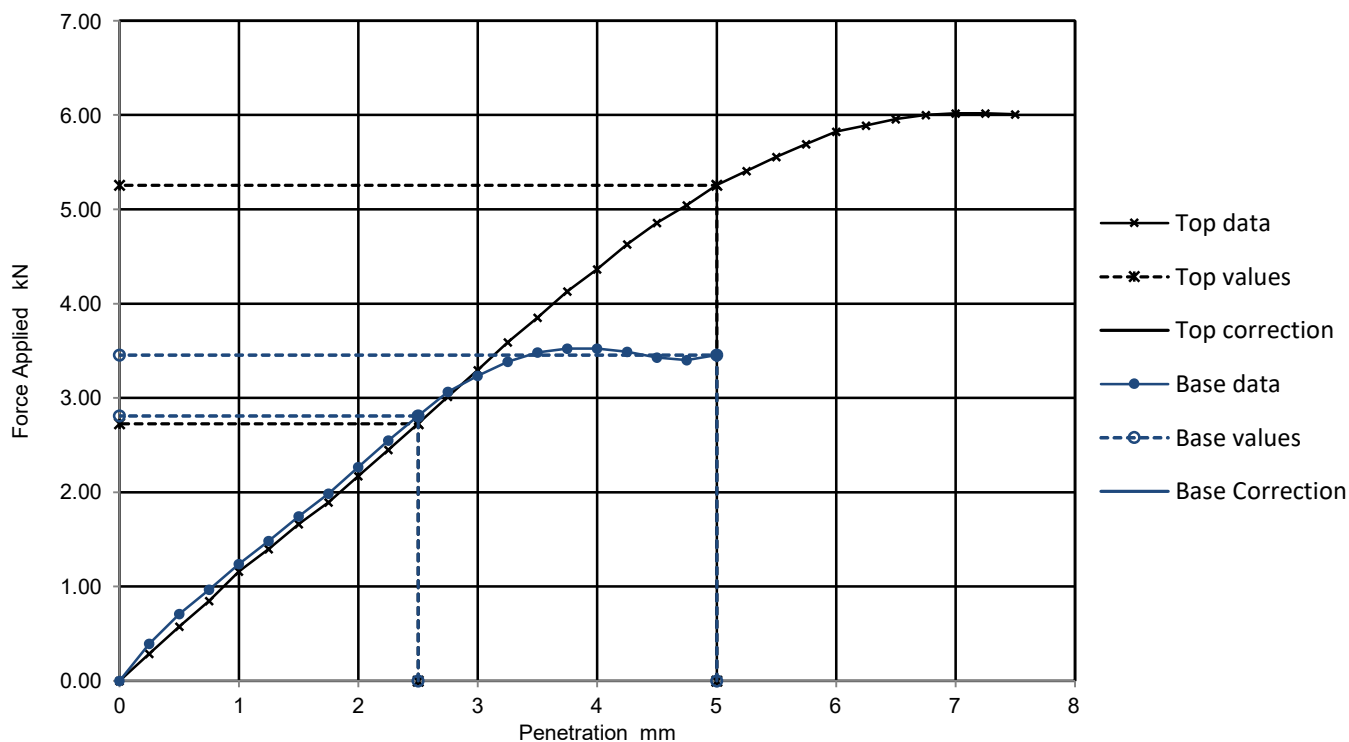
7758

GQF-008-36 Issue 01 - Oct 22	California Bearing Ratio (CBR)			Job Ref	J235496
				Borehole/Pit No.	WS08
Project Name	Manchester Road, Sudden			Sample No.	1
Soil Description	Dark brown mottled orangish brown slightly clayey SAND.			Depth m	1.10
Specimen Reference		Specimen Depth	m	Sample Type	B
Specimen Description				KeyLAB ID	TTLP202305166
Test Method	BS1377 : Part 4 : 1990, clause 7			CBR Test Number	1

Specimen Preparation

Condition	REMOULDED		Soaking details	Not soaked	
Details	Recompacted with specified standard effort using 2.5kg rammer		Period of soaking	days	
			Time to surface	days	
			Amount of swell recorded	mm	
Material retained on 20mm sieve removed	0	%	Dry density after soaking	Mg/m ³	
Initial Specimen details	Bulk density	1.80	Mg/m ³	Surcharge applied	15 kg
	Dry density	1.62	Mg/m ³		9 kPa
	Moisture content	11.0	%		

Force v Penetration Plots



Results

TOP
BASE

Curve correction applied	CBR Values, %			
	2.5mm	5mm	Highest	Average
No	21	26	26	N/A
No	21	17	21	

Moisture Content	%
	12.7
	11.2

Remarks

Sample sheared during test on sample base.



CBR

Date Printed

19/05/2023

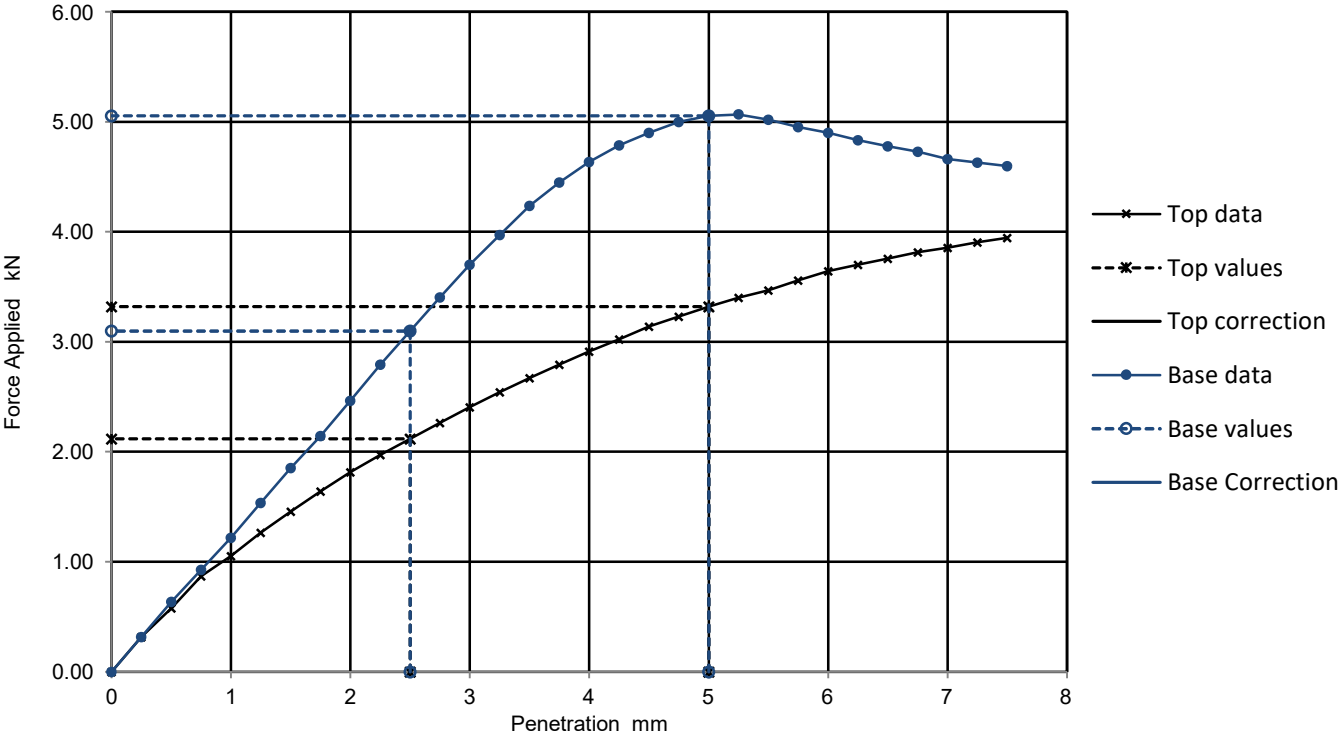
7758

GQF-008-36 Issue 01 - Oct 22	California Bearing Ratio (CBR)			Job Ref	J235496
				Borehole/Pit No.	WS10
Project Name	Manchester Road, Sudden			Sample No.	1
Soil Description	Light brown SAND.			Depth m	0.20
Specimen Reference		Specimen Depth	m	Sample Type	B
Specimen Description				KeyLAB ID	TTLP202305168
Test Method	BS1377 : Part 4 : 1990, clause 7			CBR Test Number	1

Specimen Preparation

Condition	REMOULDED		Soaking details	Not soaked	
Details	Recompacted with specified standard effort using 2.5kg rammer		Period of soaking	days	
			Time to surface	days	
			Amount of swell recorded	mm	
Material retained on 20mm sieve removed	0	%	Dry density after soaking	Mg/m ³	
Initial Specimen details	Bulk density	1.74	Mg/m ³	Surcharge applied	15 kg
	Dry density	1.60	Mg/m ³		9 kPa
	Moisture content	8.9	%		

Force v Penetration Plots



Results

TOP
BASE

Curve correction applied	CBR Values, %			
	2.5mm	5mm	Highest	Average
No	16	17	17	N/A
No	23	25	25	

Moisture Content
%
9.0
9.0

Remarks



CBR

APPENDIX K

Generic Screening Criteria



EPS Generic Quantitative Risk Assessment

Generic Screening Criteria (C4SLs) - All Land Uses

	Soil Targets					
Contaminant	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

EPS Generic Quantitative Risk Assessment - Commercial Landuse

Contaminant	Soil Targets		
	Human Health	Controlled Waters	
		Surface Water	Groundwater
Unit	mg/kg		
Arsenic	See C4SL	n/c	n/c
Cadmium	See C4SL	n/c	n/c
Chromium III	8600	n/c	n/c
Chromium VI	See C4SL	n/c	n/c
Copper	68000	n/c	n/c
Mercury (elemental)	58	0.085	1.22
Nickel	980	n/c	n/c
Lead	See C4SL	n/c	n/c
Selenium	12000	n/c	n/c
Zinc	730000	n/c	n/c
Benzene	See C4SL	0.064	0.0064
Toluene	56000* (869)	1.33	12.6
Ethylbenzene	5700* (518)	0.77	11.5
Xylene (Para)	5900** (576)	1.18	19.6
MTBE#	7900	4.41	0.026
Benzo(a)Pyrene	see C4SL	n/c	n/c
Naphthalene	190** (76.4)	0.11	0.11
Aliphatic C5-C6	3200** (304)	4.06	0.81
Aliphatic C6-C8	7800** (144)	17.8	3.57
Aliphatic C8-C10	2000** (78)	n/c	n/c
Aliphatic C10-C12	9700** (48)	n/c	n/c
Aliphatic C12-C16	59000** (24)	n/c	n/c
Aliphatic C16-C35	1600000	n/c	n/c
Aromatic C8-C10	3500* (613)	6.71	1.34
Aromatic C10-C12	16000** (364)	10.6	2.13
Aromatic C12-C16	36000** (169)	21.2	4.23
Aromatic C16-C21	28000	n/c	n/c
Aromatic C21-C35	28000	n/c	n/c
Tetrachloroethene	See C4SL	0.24	0.24
Trichloroethene	See C4SL	0.13	0.13
cis-1,2 Dichloroethene		0.21	0.21
Vinyl Chloride	See C4SL	0.0012	0.0012

Contaminant	Groundwater Targets		
	Human Health	Controlled Waters	
		Surface Water	Groundwater
Unit	µg/l		
Arsenic	n/c	50	10
Cadmium	n/c	2.5#	5
Chromium III	n/c	4.7	50
Chromium VI	n/c	3.4	50
Copper	n/c	93.1#	2000
Mercury (sol)	95 (sol)	1	1
Nickel	n/c	14.8#	20
Lead	n/c	27.7#	10
Selenium	n/c	10	10
Zinc	n/c	373#	3000
Benzene	20,000	10	1
Toluene (sol)	21,000,000 (sol)	74	700
Ethylbenzene (sol)	960,000 (sol)	20	300
Xylene (sol)	980,000 (sol)	30	500
MTBE	7,800,000	2600	15
Benzo(a)Pyrene	n/c	0.005 (0.00017)	0.01
Naphthalene (sol)	23,000 (sol)	2	2
Aliphatic C5-C6 (sol)	190,000 (sol)	50	10
Aliphatic C6-C8 (sol)	150,000 (sol)	50	10
Aliphatic C8-C10 (sol)	5,700 (sol)	50	10
Aliphatic C10-C12 (sol)	3,600 (sol)	50	10
Aliphatic C12-C16	n/c	50	10
Aliphatic C16-C35	n/c	50	10
Aromatic C8-C10 (sol)	190,000 (sol)	50	10
Aromatic C10-C12 (sol)	660,000 (sol)	50	10
Aromatic C12-C16 (sol)	3,700,000 (sol)	50	10
Aromatic C16-C21	n/c	50	10
Aromatic C21-C35	n/c	50	10
Tetrachloroethene	4,600	10	10
Trichloroethene	530	10	10
cis-1,2 Dichloroethene	13,000	50	50
Vinyl Chloride	63	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)

Human Health Groundwater GAC with (sol) exceed aqueous solubility

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.

APPENDIX L

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.

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