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32 Eaton Avenue, Matrix Park
Buckshaw Village,
Preston PR7 7NA
Tel: 01772 299 040

Site London Road, Shrewsbury			**Number** WS 11
Excavation Method windowless sampling	**Dimensions** 100mm to 5.45m	**Ground Level (mOD)**	**Client** Shropshire County Council	**Job Number** P4973
	Location	**Dates** 25/09/2014	**Engineer** thomas consulting	**Sheet** 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.20) 0.20	brown topsoil withsome to much fine to coarse sand and fine to medium gravel		
					(0.80)	brown clayey sand and gravel		
1.00-1.45	SPT N=13		5,5/4,3,3,3		1.00 (0.30) 1.30	brown very clayey sand and gravel		
						Firm to stiff red brown clay		
2.00-2.45	SPT N=12		2,2/3,3,3,3		(1.70)			
3.00-3.45	SPT N=16		3,3/4,4,4,4		3.00	becoming stiff		
					(1.00)			
4.00-4.45	SPT N=20		3,3/4,5,5,6		4.00	stiff brown clay with some to much subrounded gravel		
					(1.45)			
5.00-5.45	SPT N=15		2,2/3,4,4,4		5.45	Complete at 5.45m		

Remarks
1. Location CAT scanned prior to excavation
2. Hand dug inspection pit to 1.20 m
3. No groundwater encountered
4. Slotted Standpipe installed to 4.50 m

Scale (approx)	Logged By
1:50	ih

Figure No.
P4973.WS.11

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THOMAS CONSULTING	32 Eaton Avenue, Matrix Park Buckshaw Village, Preston PR7 7NA Tel: 01772 299 040	Site London Road, Shrewsbury	Number WS 12

Excavation Method	Dimensions	Ground Level (mOD)	Client	Job Number
windowless sampling	100mm to 5.45m		Shropshire County Council	P4973
	Location	**Dates**	**Engineer**	**Sheet**
		25/09/2014	thomas consulting	1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.20) 0.20	brown topsoil with some to much fine to coarse sand and fine to medium gravel		
					(0.60) 0.80	brown clayey fine to coarse sand and fine to medium gravel		
1.00-1.45	SPT N=15		3,3/3,4,4,4		(0.60) 1.40	firm red brown clay with some fine to medium subangular gravel		
2.00-2.45	SPT N=7		1,1/1,2,2,2		(1.60) 3.00	becoming stiff		
3.00-3.45	SPT N=15		2,3/3,4,4,4			stiff brown clay with some fine to medium subrounded gravel		
4.00-4.45	SPT N=18		2,3/4,4,5,5		(2.45) 5.45			
5.00-5.45	SPT N=18		3,3/4,4,4,6					
						Complete at 5.45m		

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Remarks
1. Location CAT scanned prior to excavation
2. Hand dug inspection pit to 1.20 m
2. No groundwater encountered

Scale (approx)	Logged By
1:50	ih

Figure No.
P4973 WS 12

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Site London Road, Shrewsbury			**Number** WS 2
Excavation Method windowless sampling	**Dimensions** 100mm to 1.50m 67mm to 2.50m 57mm to 2.70m	**Ground Level (mOD)**	**Client** Shropshire County Council	**Job Number** P4973
	Location	**Dates** 26/09/2014	**Engineer** thomas consulting	**Sheet** 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					0.10	brown topsoil with some fine to coarse sand and fine to medium gravel		
						brown clay some to much fine to coarse sand and medium to coarse subrounded gravel		
1.00-1.45	SPT N=27		2,4/6,6,6,7		(1.50)			
					1.60	red brown clay with some to much fine to coarse sand		
2.00-2.45	SPT N=26		1,5/5,6,6,9		(1.55)			
2.70-3.15	SPT N=24		5,5/5,6,6,6		3.15	Complete at 3.15m		

Remarks
1. Location CAT scanned prior to excavation
2. No groundwater encountered
2. Hand dug inspection pit to 1.20 m
3. Slotted Standpipe installed to 2.70 m

Scale (approx)	Logged By
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Figure No. P4973.WS 2

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Site London Road, Shrewsbury			**Number** WS 3
Excavation Method windowless sampling	**Dimensions** 108mm to 5.15m	**Ground Level (mOD)**	**Client** Shropshire County Council	**Job Number** P4973
	Location	**Dates** 01/01/2014	**Engineer** thomas consulting	**Sheet** 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					0.10	brown topsoil with some fine to coarse sand and medium to coarse gravel		
					(0.90)	brown clayey sand and gravel		
1.00-1.45	SPT N=24		7,6/6,6,6,6		1.00	brown very gravelly sandy clay		
					(0.70)			
					1.70	Firm to stiff brown clay with some bands of red brown sand		
2.00-2.45	SPT N=16		4,5/4,4,4,4		(1.10)			
					2.80	becoming red brown sand with bands of brown clay		
3.00-3.45	SPT N=12		1,2/2,3,3,4		(1.20)			
4.00-4.45	SPT N=15		2,3/4,3,4,4		4.00	Complete at 5.15m		
4.70-5.15	SPT N=23		2,3/5,5,6,7					

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Remarks
1. Location CAT scanned prior to excavation
2. Hand dug inspection pit to 1.20 m
2. No groundwater encountered
3. Slotted Standpipe installed to 3.00 m

Scale (approx)	Logged By
1:50	ah

Figure No.
P4973/WS 3

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Site London Road, Shrewsbury				**Number** WS 4
Excavation Method windowless sampling	**Dimensions** 100mm to 5.45m	**Ground Level (mOD)**	**Client** Shropshire County Council	**Job Number** P4973
	Location	**Dates** 25/09/2014	**Engineer** thomas consulting	**Sheet** 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.20) 0.20	brown topsoil with much fine to coarse sand and fine to coarse gravel		
					(0.70) 0.90	brown clayey sand and gravel		
1.00-1.45	SPT N=7		3,2/2,2,2,1		(1.10) 2.00	brown very clayey sand and gravel		
2.00-2.45	SPT N=6		1,2/1,1,2,2		(0.50) 2.50	red brown clay with some medium to coarse subrounded gravel		
3.00-3.45	SPT N=15		1,2/3,4,4,4			brown silty clay with lenses of sand		
4.00-4.45	SPT N=11		2,2/3,2,3,3		(2.95)			
5.00-5.45	SPT N=23		4,6/6,5,6,6		5.45	Complete at 5.45m		

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Remarks
1. Location CAT scanned prior to excavation
2. Hand dug inspection pit to 1.20 m
2. No groundwater encountered

Scale (approx)	Logged By
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Figure No.
P4973.WS.4

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Excavation Method windowless sampling	**Dimensions** 100mm to 4.95m	**Ground Level (mOD)**	**Client** Shropshire County Council	**Job Number** P4973
	Location	**Dates** 01/01/2014	**Engineer** thomas consulting	**Sheet** 1/1

Site: London Road, Shrewsbury

Number: WS 5

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.25) 0.25	MADE GROUND topsoil with some gravel and brick fragments		
						brown clayey fine to coarse sand with some subrounded gravel		
					(1.25)			
1.00-1.45	SPT N=24		6,4/4,6,6,8					
					1.50	Firm to stiff brown clay with occ lenses of silt and sand		
2.00-2.45	SPT N=18		6,6/7,4,4,3		(0.90)			
			seepage(1) at 2.20m		2.40	stiff brown clay with occasional lenses of sand and silt		
3.00-3.45	SPT N=14		2,2/2,3,4,5		(1.60)			
4.00-4.45	SPT N=36		7,7/8,8,10,10		4.00	Complete at 4.95m		
4.50-4.95	SPT N=11		1,4/4,5,5,5					

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Remarks
1. Location CAT scanned prior to excavation
2. Groundwater seepage at 2.20 m
2. Hand dug inspection pit to 1.20 m

Scale (approx)	Logged By
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Figure No.
P4973.WS.5

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Excavation Method: windowless sampling	**Dimensions**: 100mm to 3.90m	**Ground Level (mOD)**	**Client**: Shropshire County Council	**Job Number**: P4973
	Location	**Dates**: 26/09/2014	**Engineer**: thomas consulting	**Sheet**: 1/1

Site: London Road, Shrewsbury

Number: WS 6

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					0.10	brown topsoil with sand and gravel		
						brown clayey sand with some fine to medium subrounded gravel		
					(1.40)			
1.00-1.45	SPT N=29		5,5/6,8,8,7					
					1.50	Firm to stiff red brown clay		
2.00-2.45	SPT N=14		3,3/4,3,4,3		(1.20)			
					2.70	stiff brown clay with lenses of sand		
3.00-3.45	SPT N=20		5,14/5,5,5,5					
					(1.65)			
3.90-4.35	SPT N=30		9,14/4,5,8,13					
					4.35	Complete at 4.35m		

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Remarks
3. Sampler refusal at 3.99m
1. Location CAT scanned prior to excavation
2. Hand dug inspection pit to 1.20 m
2. No groundwater encountered
3. Slotted Standpipe installed to 3.30 m

Scale (approx)	Logged By
1:50	ih

Figure No.
P4973/WS 6

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Excavation Method: windowless sampling	**Dimensions**: 100mm to 5.35m	**Ground Level (mOD)**	**Client**: Shropshire County Council	**Job Number**: P4973
	Location	**Dates**: 25/09/2014	**Engineer**: thomas consulting	**Sheet**: 1/1

Site: London Road, Shrewsbury

Number: WS 7

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					0.10	brown topsoil with much sand and gravel		
					(1.00)	brown clay with much fine to coarse sand and fine to coarse subrounded gravel		
1.00-1.45	SPT N=29		6,6/6,8,8,7		1.10			
					(0.80)	brown clay with some to much fine to coarse sand and fine to coarse gravel		
					1.90			
2.00-2.45	SPT N=17		2,3/4,4,4,5		2.00	firm brown silty with some to much sand		
					(0.60)	brown fine to coarse sand and fine to coarse gravel with some clay		
					2.60			
					(0.30)	dark brown fine sand with much medium to coarse gravel		
3.00-3.45	SPT N=13		2,2/3,3,3,4		2.90	brown Firm to stiff sandy clay		
4.00-4.45	SPT N=12		1/2,2/3,3,3,3		(2.45)			
4.45-4.90	SPT N=16		3,4/4,4,4,4					
4.90-5.35	SPT N=20		4,4/5,5,5,5					
					5.35	Complete at 5.35m		

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Remarks
1. Location CAT scanned prior to excavation
2. Hand dug inspection pit to 1.20 m
3. No groundwater encountered

Scale (approx)	Logged By
1:50	ih

Figure No.
P4973.WS 7

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Excavation Method windowless sampling	**Dimensions** 100mm to 5.45m	**Ground Level (mOD)**	**Client** Shropshire County Council	**Job Number** P4973
	Location	**Dates** 25/09/2014	**Engineer** thomas consulting	**Sheet** 1/1

Site: London Road, Shrewsbury

Number: WS 8

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.20) 0.20	brown topsoil with much fine to coarse sand and fine to coarse gravel		
					(0.70) 0.90	brown clay with some to much fine to coarse sand and gravel		
1.00-1.45	SPT N=12		1,2/3,3,3,3		1.00	brown very clayey sand and gravel		
					(0.70) 1.70	Firm to stiff red brown clay with some subrounded gravel		
2.00-2.45	SPT N=10		2,2/2,2,3,3		(0.70) 2.40	red brown silty clay		
3.00-3.45	SPT N=24		4,4/6,6,6,6			stiff brown clay with some to much subrounded gravel		
4.00-4.45	SPT N=22		3,4/5,5,6,6		(3.05)			
5.00-5.45	SPT N=21		3,3/4,5,6,6		5.45	Complete at 5.45m		

Remarks
1. Location CAT scanned prior to excavation
2. Hand dug inspection pit to 1.20 m
2. No groundwater encountered

Scale (approx)	Logged By
1:50	ih

Figure No.
P4973.WS.8

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Site London Road, Shrewsbury				**Number** WS 9
Excavation Method windowless sampling	**Dimensions** 100mm to 5.45m	**Ground Level (mOD)**	**Client** Shropshire County Council	**Job Number** P4973
	Location	**Dates** 25/09/2014	**Engineer** thomas consulting	**Sheet** 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.20) 0.20	brown topsoil with some to much fine to coarse sand and F-m gravel		
					(0.70) 0.90	brown clay with some to much fine to coarse sand and fine to coarse gravel		
1.00-1.45	SPT N=24		5,5/5,6,6,6		(1.90) 2.80	brown clay with much fine to coarse sand and fine to coarse gravel		▽
2.00-2.45	SPT N=19		slight seepage(1) at 2.00m. 3,3/4,5,5,5					
3.00-3.45	SPT N=10		1,1/1,1,2,2		(0.40) 3.20	Dark brown sand and gravel		
4.00-4.45	SPT N=16		3,3/3,4,4,5		(2.25)	stiff red brown clay with some subrounded gravel		
5.00-5.45	SPT N=19		3,4/4,5,5,5		5.45	Complete at 5.45m		

Remarks
1. Location CAT scanned prior to excavation
2. Hand dug inspection pit to 1.20 m
2. slight seepage encountered at 2.00m

Scale (approx)	Logged By
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Figure No. P4973.WS 9

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Highways + Engineering

Appendix 8

Geotechnical Laboratory Testing Results

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LABORATORY REPORT

4043

Contract Number: PSL21/5628

Report Date: 03 August 2021

Client's Reference: ML/30535

Client Name: GIP Ltd
Devonshire House
Ettingshall Road
Wolverhampton
WV2 2JT

For the attention of: Matt Laws

Contract Title: London Road, Shrewsbury

Date Received: 13/7/2021
Date Commenced: 13/7/2021
Date Completed: 3/8/2021

Notes: **Opinions and Interpretations are outside the UKAS Accreditation**

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A copy of the Laboratory Schedule of accredited tests as issued by UKAS is attached to this report. 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 other than in full, without the prior written approval of the laboratory.

Checked and Approved Signatories:

A Watkins (Director)	R Berriman (Quality Manager)	S Royle (Laboratory Manager)
L Knight (Assistant Laboratory Manager)	S Eyre (Senior Technician)	T Watkins (Senior Technician)

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SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
CP1	2	B	0.50		Brown mottled grey slightly gravelly sandy CLAY.
CP1	5	S	2.00		Brown mottled grey slightly gravelly sandy CLAY.
CP10	4	B	1.20		Brown sandy CLAY.
CP10	12	S	5.00		Brown sandy CLAY.
CP2	1	B	0.10		Brown very sandy clayey silty GRAVEL.
CP2	6	B	2.00		Brown sandy CLAY.
CP2	8	D	3.45		Brown SILT.
CP3	2	B	0.70		Brown very sandy clayey silty GRAVEL.
CP3	7	D	2.70		Brown sandy CLAY.
CP4	2	B	0.60		Brown very gravelly very sandy CLAY.
CP4	7	B	2.50		Brown slightly gravelly sandy CLAY.
CP4	10	S	4.00		Brown slightly gravelly sandy CLAY.
CP5	2	B	0.40		Brown sandy clayey silty GRAVEL.
CP5	5	S	2.00		Brown very gravelly very sandy CLAY.
CP6	4	B	1.40		Brown slightly gravelly sandy CLAY.
CP6	10	B	4.00		Brown slightly gravelly sandy CLAY.
CP7	2	B	0.50		Brown very sandy clayey silty GRAVEL.
CP7	6	B	2.10		Brown slightly gravelly sandy CLAY.
CP7	7	S	3.00		Brown slightly gravelly sandy CLAY.

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SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
CP8	2	B	0.50		Brown very gravelly very sandy CLAY.
CP8	7	D	2.70		Brown very gravelly very sandy CLAY.
CP9	2	B	0.50		Brown gravelly very sandy CLAY.
CP9	7	B	2.00		Brown slightly gravelly very sandy CLAY.
TP2	3	B	1.10		Brown slightly sandy clayey GRAVEL.
TP3	4	B	2.00		Brown slightly gravelly sandy CLAY.
TP4	4	B	1.70		Brown slightly gravelly sandy CLAY.
TP6	3	B	0.70		Brown slightly gravelly sandy CLAY.
TP6	4	B	1.40		Brown slightly gravelly sandy CLAY.
TP7	2	B	0.50		Brown slightly gravelly sandy CLAY.
TP7	4	B	2.00		Brown slightly gravelly sandy CLAY.
TP8	3	B	1.20		Brown slightly gravelly sandy CLAY.
TP9	3	B	1.10		Brown slightly gravelly sandy CLAY.
TP9	5	B	2.40		Brown slightly gravelly sandy CLAY.
TP10	2	B	0.70		Brown sandy clayey GRAVEL.
TP10	5	B	2.70		Brown slightly gravelly very sandy CLAY.
TP11	3	B	1.00		Brown very sandy clayey GRAVEL.
TP11	5	B	2.20		Brown slightly gravelly very sandy CLAY.
TP12	4	B	2.10		Brown slightly gravelly very sandy CLAY.

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SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
TP13	3	B	0.70		Brown sandy clayey GRAVEL.

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SUMMARY OF SOIL CLASSIFICATION TESTS

(BS1377 : PART 2 : 1990)

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Moisture Content % Clause 3.2	Linear Shrinkage % Clause 6.5	Particle Density Mg/m^3 Clause 8.2	Liquid Limit % Clause 4.3/4	Plastic Limit % Clause 5.3	Plasticity Index % Clause 5.4	Passing .425mm %	Remarks
CP1	2	B	0.50		13			46	22	24	94	Intermediate Plasticity CI
CP1	5	S	2.00		24			38	19	19	92	Intermediate Plasticity CI
CP10	4	B	1.20		22			49	23	26	100	Intermediate Plasticity CI
CP10	12	S	5.00		26			42	20	22	100	Intermediate Plasticity CI
CP2	6	B	2.00		17			44	21	23	100	Intermediate Plasticity CI
CP2	8	D	3.45		21				NP			
CP3	7	D	2.70		16			36	18	18	100	Intermediate Plasticity CI
CP4	7	B	2.50		12			39	19	20	95	Intermediate Plasticity CI
CP4	10	S	4.00		25			34	17	17	100	Low Plasticity CL
CP5	5	S	2.00		16			39	19	20	74	Intermediate Plasticity CI
CP6	4	B	1.40		19			40	19	21	97	Intermediate Plasticity CI
CP6	10	B	4.00		18			41	20	21	94	Intermediate Plasticity CI
CP7	6	B	2.10		23			39	19	20	94	Intermediate Plasticity CI
CP7	7	S	3.00		19			37	19	18	98	Intermediate Plasticity CI
CP8	7	D	2.70		13			29	15	14	75	Low Plasticity CL
CP9	2	B	0.50		12			31	16	15	83	Low Plasticity CL
CP9	7	B	2.00		15			32	16	16	94	Low Plasticity CL
TP3	4	B	2.00		19			37	18	19	96	Intermediate Plasticity CI
TP4	4	B	1.70		16			40	19	21	95	Intermediate Plasticity CI

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SYMBOLS : **NP : Non Plastic** *** : Liquid Limit and Plastic Limit Wet Sieved.**

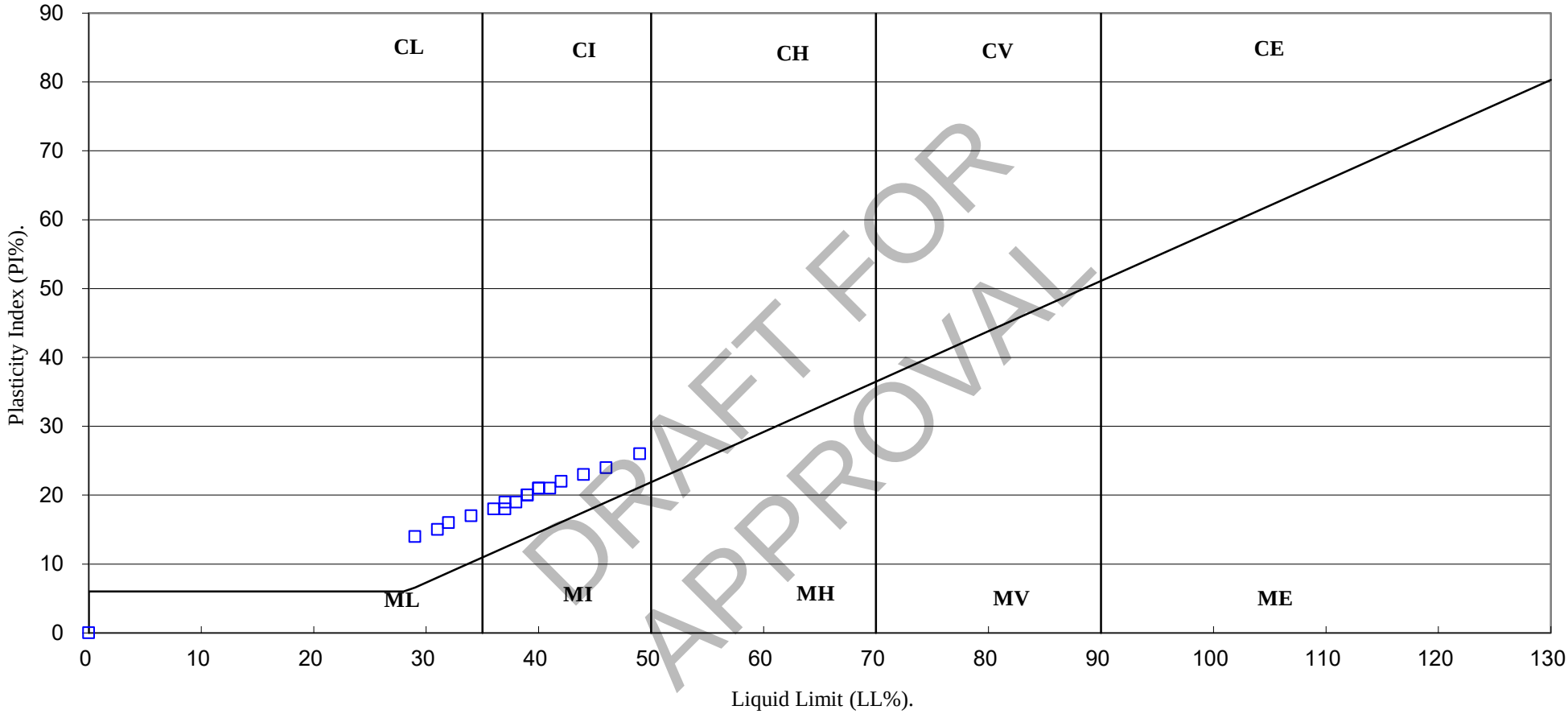
UKAS TESTING 4043

PSL Professional Soils Laboratory

London Rd, Shrewsbury

Contract No:
PSL21/5628
Client Ref:
ML/30535

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.



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UKAS TESTING 4043	PSL Professional Soils Laboratory	London Rd, Shrewsbury	Contract No: PSL21/5628
			Client Ref: ML/30535

SUMMARY OF SOIL CLASSIFICATION TESTS

(BS1377 : PART 2 : 1990)

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Moisture Content % Clause 3.2	Linear Shrinkage % Clause 6.5	Particle Density Mg/m^3 Clause 8.2	Liquid Limit % Clause 4.3/4	Plastic Limit % Clause 5.3	Plasticity Index % Clause 5.4	Passing .425mm %	Remarks
TP6	3	B	0.70		21			42	20	22	96	Intermediate Plasticity CI
TP6	4	B	1.40		18			36	18	18	94	Intermediate Plasticity CI
TP7	2	B	0.50		19			47	22	25	97	Intermediate Plasticity CI
TP7	4	B	2.00		12			33	16	17	94	Low Plasticity CL
TP8	3	B	1.20		17			37	18	19	96	Intermediate Plasticity CI
TP9	3	B	1.10		22			44	21	23	95	Intermediate Plasticity CI
TP9	5	B	2.40		22			37	18	19	97	Intermediate Plasticity CI
TP10	5	B	2.70		13			29	14	15	97	Low Plasticity CL
TP11	5	B	2.20		14			26	13	13	81	Low Plasticity CL
TP12	4	B	2.10		13			33	15	18	95	Low Plasticity CL

DRAFT FOR APPROVAL

SYMBOLS : **NP : Non Plastic** *** : Liquid Limit and Plastic Limit Wet Sieved.**

UKAS TESTING 4043

PSL Professional Soils Laboratory

London Rd, Shrewsbury

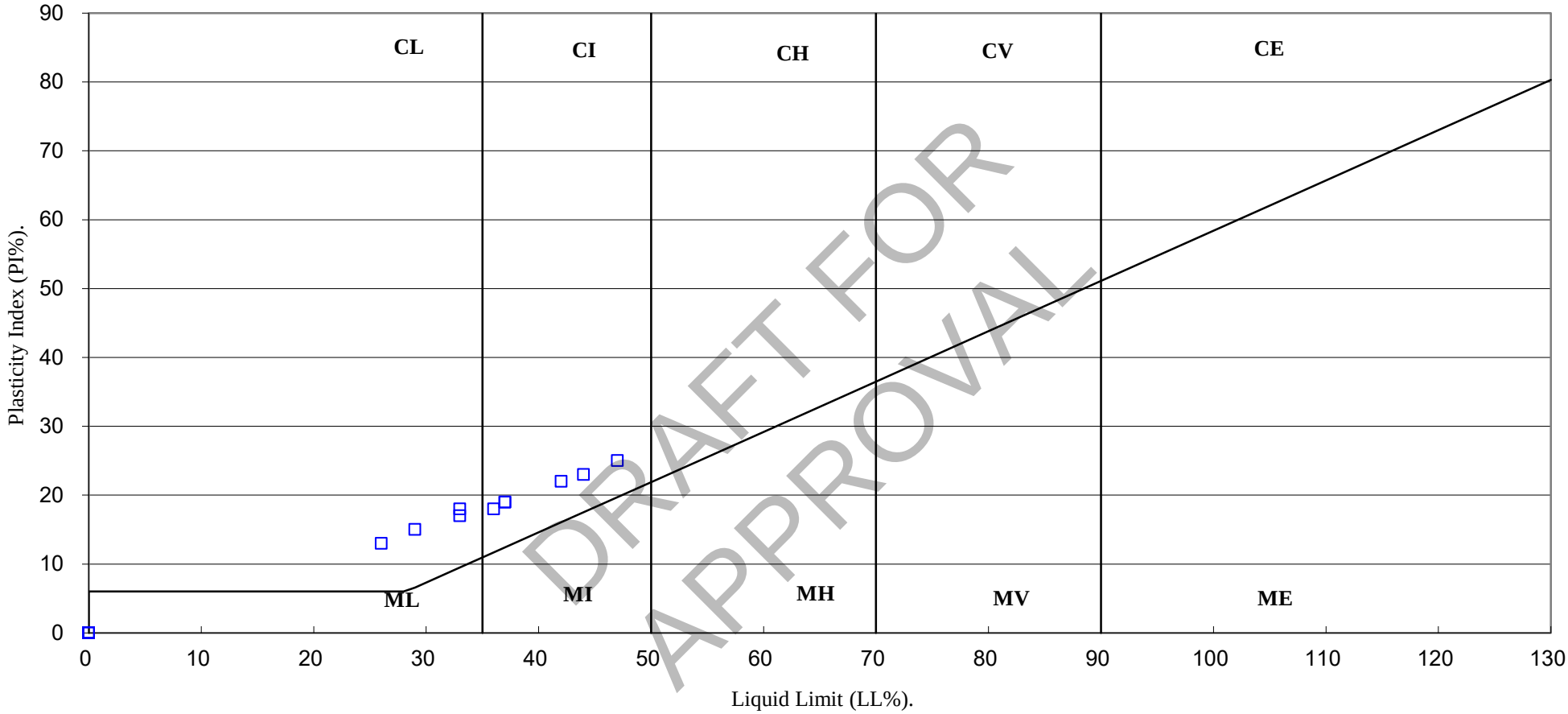
Contract No:

PSL21/5628

Client Ref:

ML/30535

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.



DRAFT FOR APPROVAL

UKAS TESTING 4043	PSL Professional Soils Laboratory	London Rd, Shrewsbury	Contract No: PSL21/5628
			Client Ref: ML/30535

PARTICLE SIZE DISTRIBUTION TEST

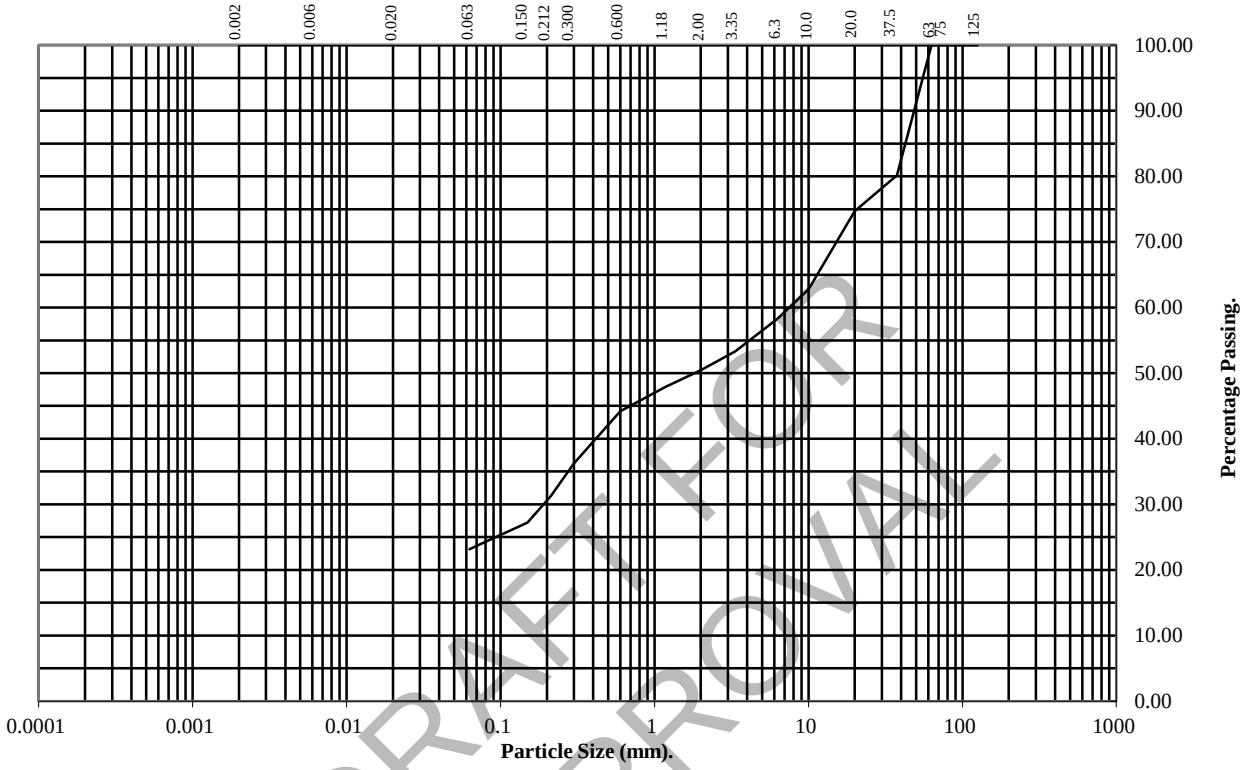
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **CP2** **Top Depth (m):** **0.10**

Sample Number: **1** **Base Depth(m):**

Sample Type: **B**



DRAFT FOR APPROVAL

BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	80
20	75
10	63
6.3	58
3.35	53
2	50
1.18	48
0.6	44
0.3	36
0.212	31
0.15	27
0.063	23

Soil Fraction	Total Percentage
Cobbles	0
Gravel	50
Sand	27
Silt/Clay	23

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

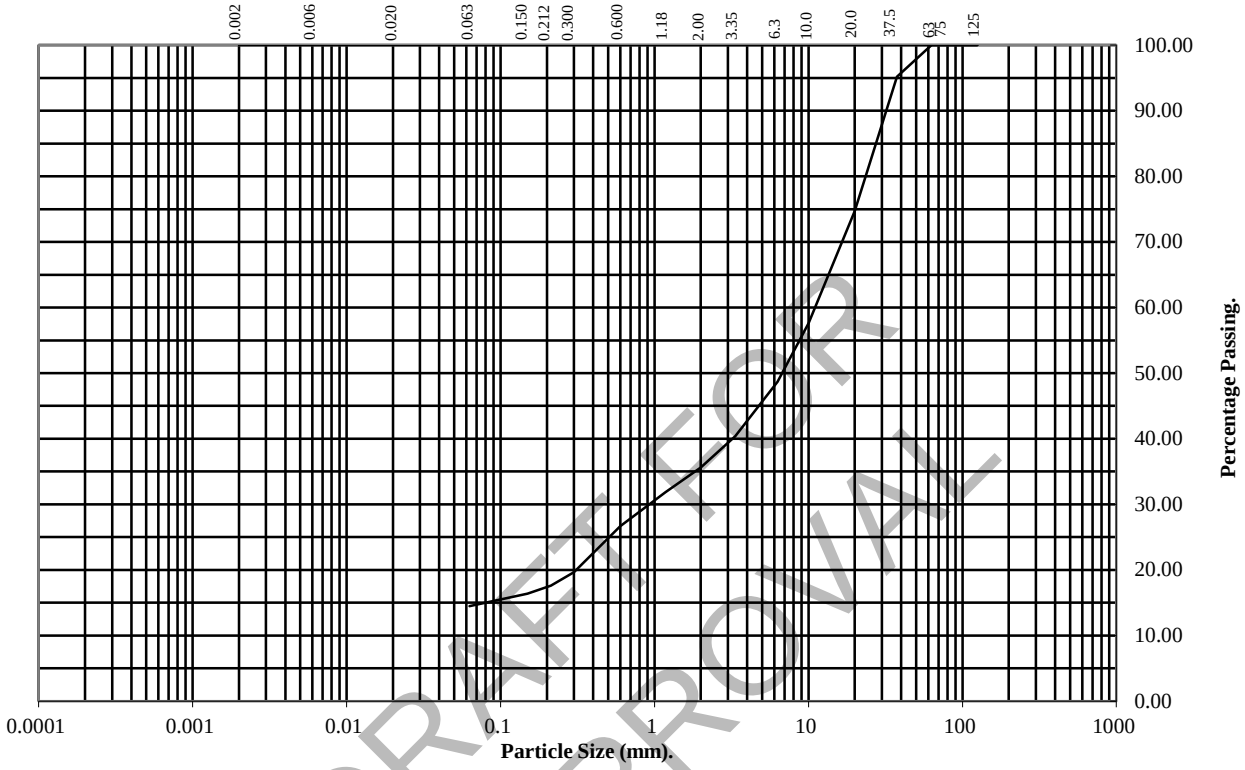
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: CP3 **Top Depth (m):** 0.70

Sample Number: 2 **Base Depth(m):**

Sample Type: B



DRAFT FOR APPROVAL

BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	95
20	75
10	58
6.3	49
3.35	40
2	36
1.18	32
0.6	27
0.3	20
0.212	18
0.15	16
0.063	14

Soil Fraction	Total Percentage
Cobbles	0
Gravel	64
Sand	22
Silt/Clay	14

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

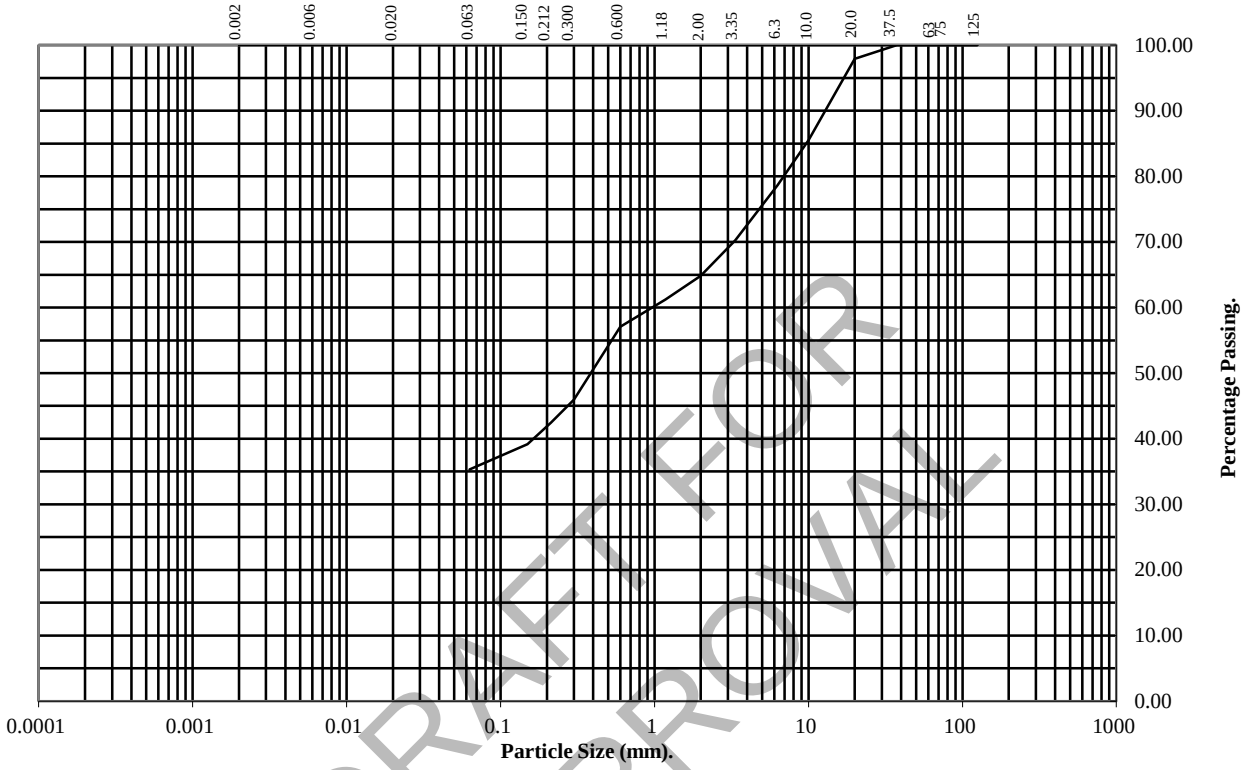
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **CP4** **Top Depth (m):** **0.60**

Sample Number: **2** **Base Depth(m):**

Sample Type: **B**



DRAFT FOR APPROVAL

BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	98
10	86
6.3	79
3.35	70
2	65
1.18	61
0.6	57
0.3	46
0.212	42
0.15	39
0.063	35

Soil Fraction	Total Percentage
Cobbles	0
Gravel	35
Sand	30
Silt/Clay	35

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

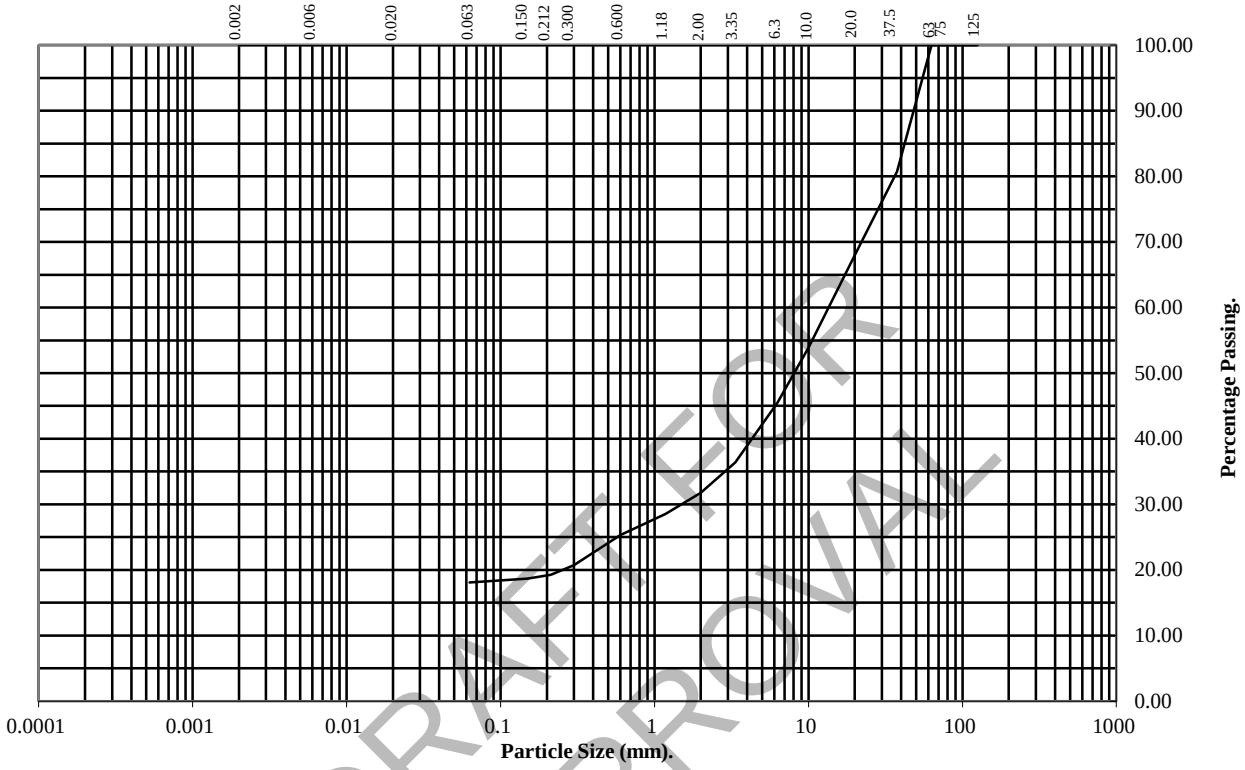
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **CP5** **Top Depth (m):** **0.40**

Sample Number: **2** **Base Depth(m):**

Sample Type: **B**



DRAFT FOR APPROVAL

BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	81
20	68
10	54
6.3	46
3.35	36
2	32
1.18	29
0.6	25
0.3	21
0.212	19
0.15	19
0.063	18

Soil Fraction	Total Percentage
Cobbles	0
Gravel	68
Sand	14
Silt/Clay	18

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

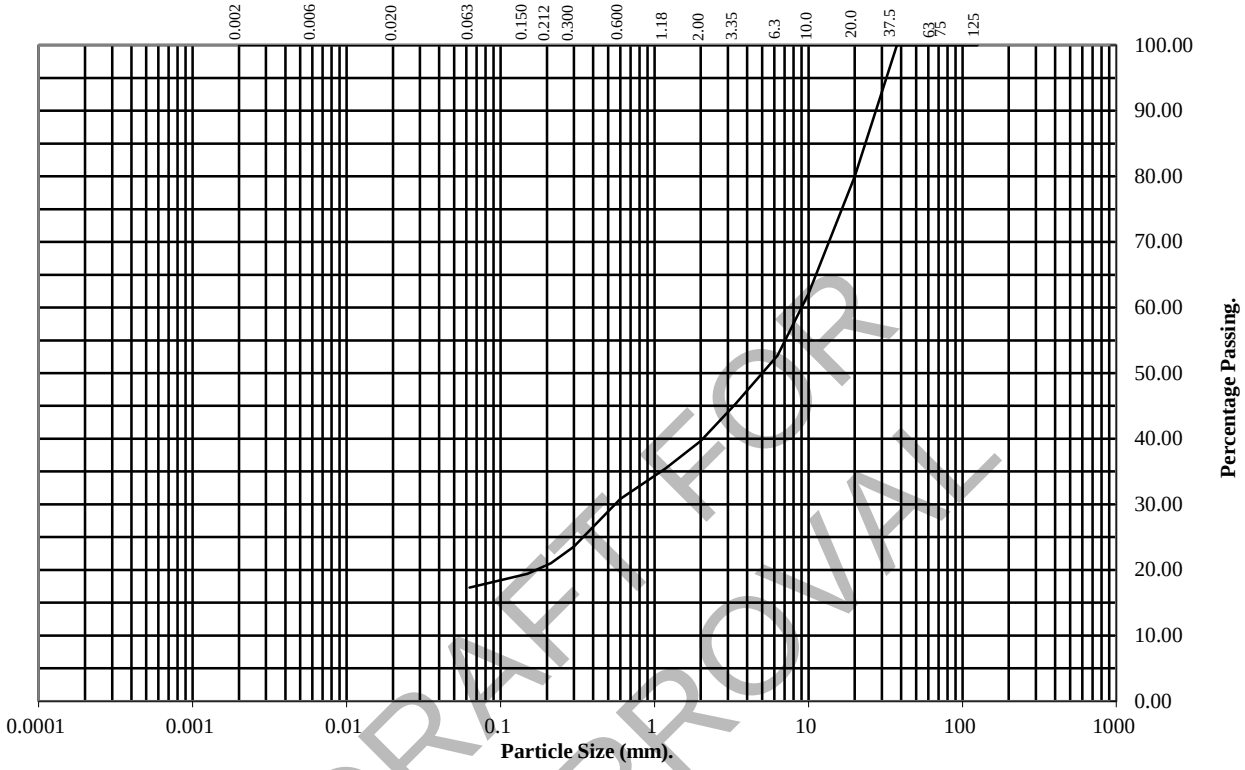
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: CP7 **Top Depth (m):** 0.50

Sample Number: 2 **Base Depth(m):**

Sample Type: B



DRAFT FOR APPROVAL

BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	80
10	62
6.3	53
3.35	45
2	40
1.18	35
0.6	31
0.3	24
0.212	21
0.15	19
0.063	17

Soil Fraction	Total Percentage
Cobbles	0
Gravel	60
Sand	23
Silt/Clay	17

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

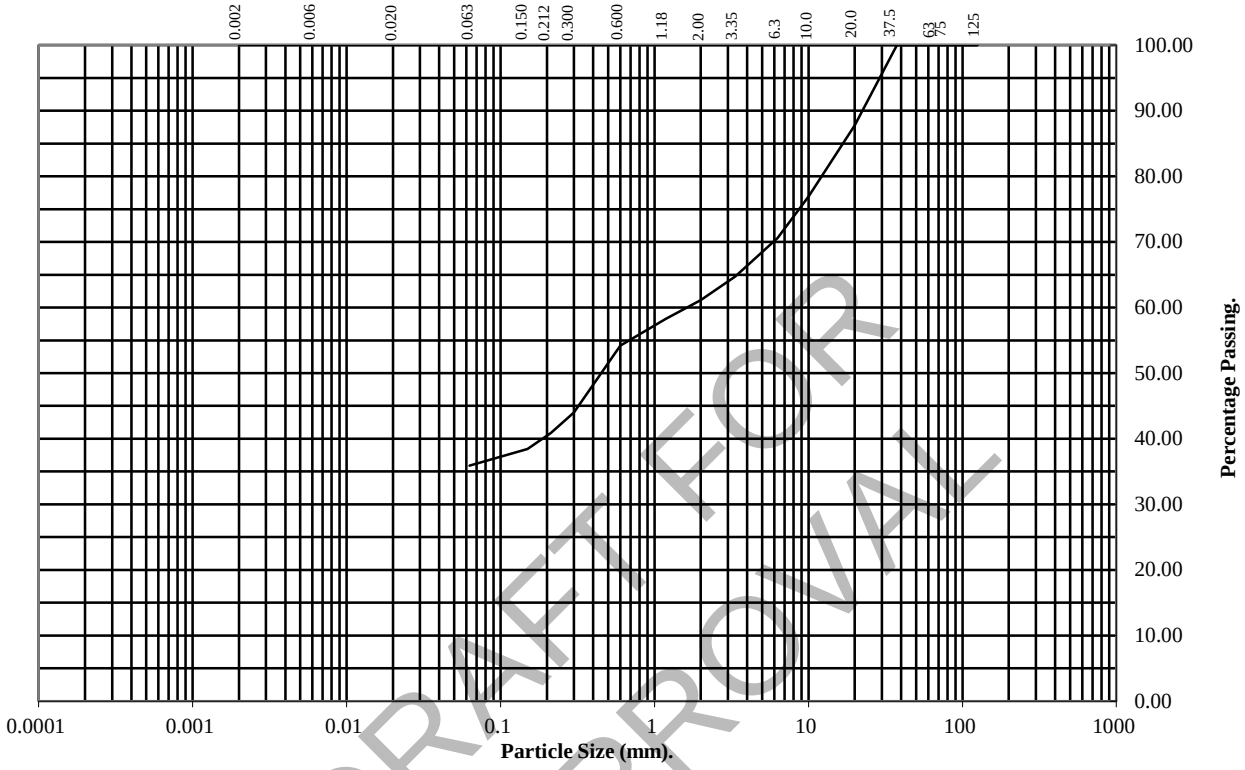
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: CP8 **Top Depth (m):** 0.50

Sample Number: 2 **Base Depth(m):**

Sample Type: B



DRAFT FOR APPROVAL

BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	88
10	77
6.3	71
3.35	65
2	61
1.18	58
0.6	54
0.3	44
0.212	41
0.15	38
0.063	36

Soil Fraction	Total Percentage
Cobbles	0
Gravel	39
Sand	25
Silt/Clay	36

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

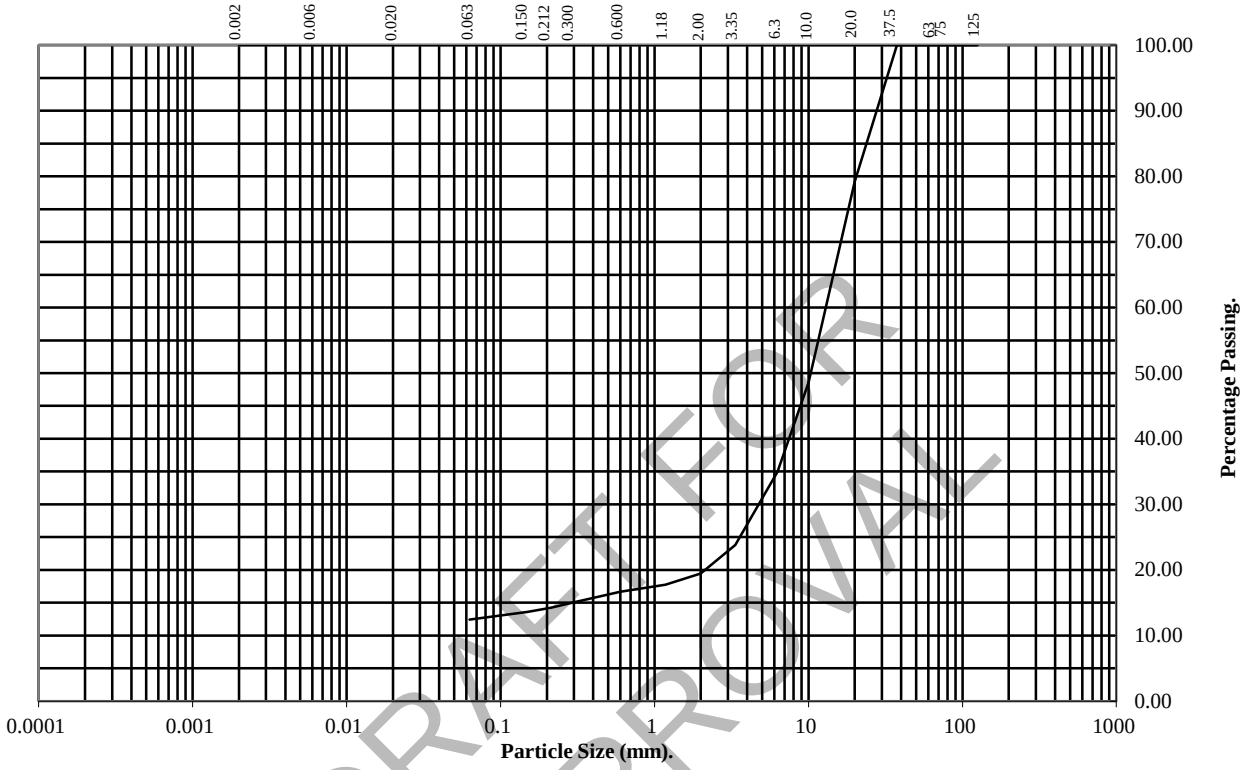
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: TP2 **Top Depth (m):** 1.10

Sample Number: 3 **Base Depth(m):**

Sample Type: B



DRAFT FOR APPROVAL

BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	79
10	49
6.3	35
3.35	24
2	19
1.18	18
0.6	17
0.3	15
0.212	14
0.15	14
0.063	12

Soil Fraction	Total Percentage
Cobbles	0
Gravel	81
Sand	7
Silt/Clay	12

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

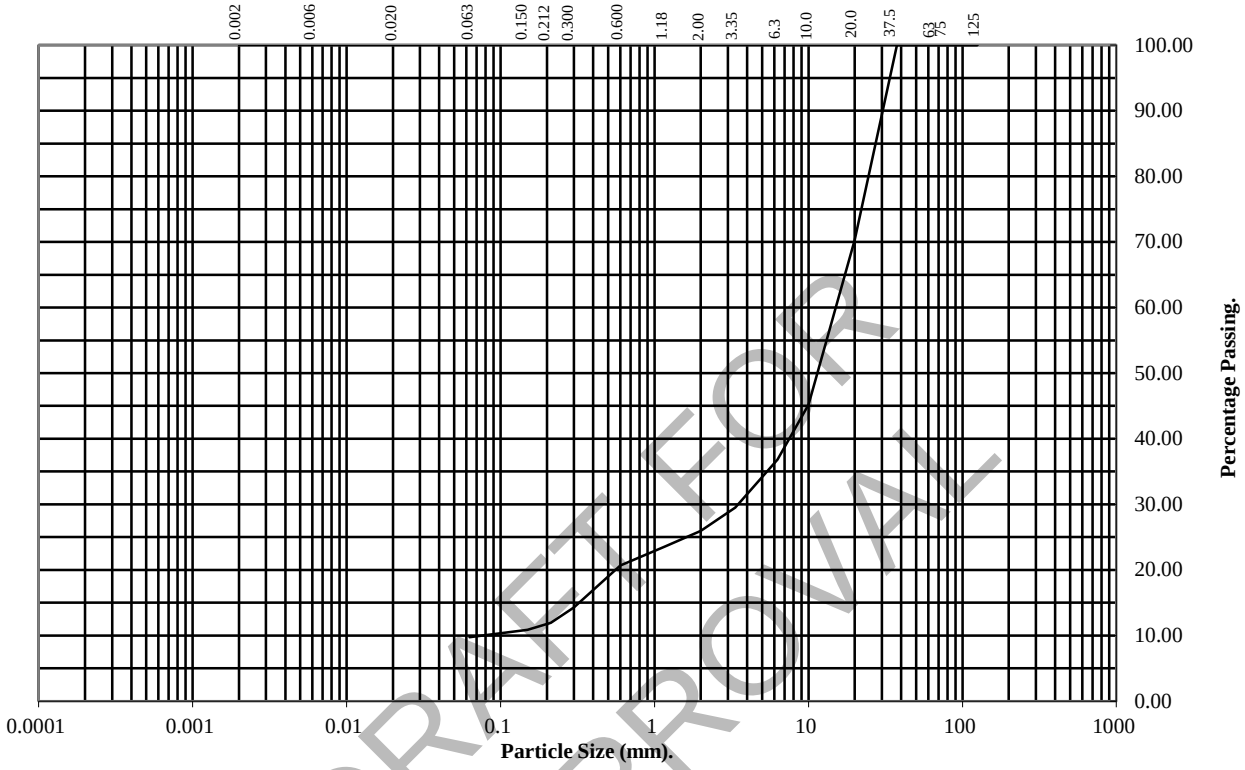
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **TP10** **Top Depth (m):** **0.70**

Sample Number: **2** **Base Depth(m):**

Sample Type: **B**



DRAFT FOR APPROVAL

BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	70
10	45
6.3	37
3.35	30
2	26
1.18	24
0.6	21
0.3	14
0.212	12
0.15	11
0.063	10

Soil Fraction	Total Percentage
Cobbles	0
Gravel	74
Sand	16
Silt/Clay	10

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

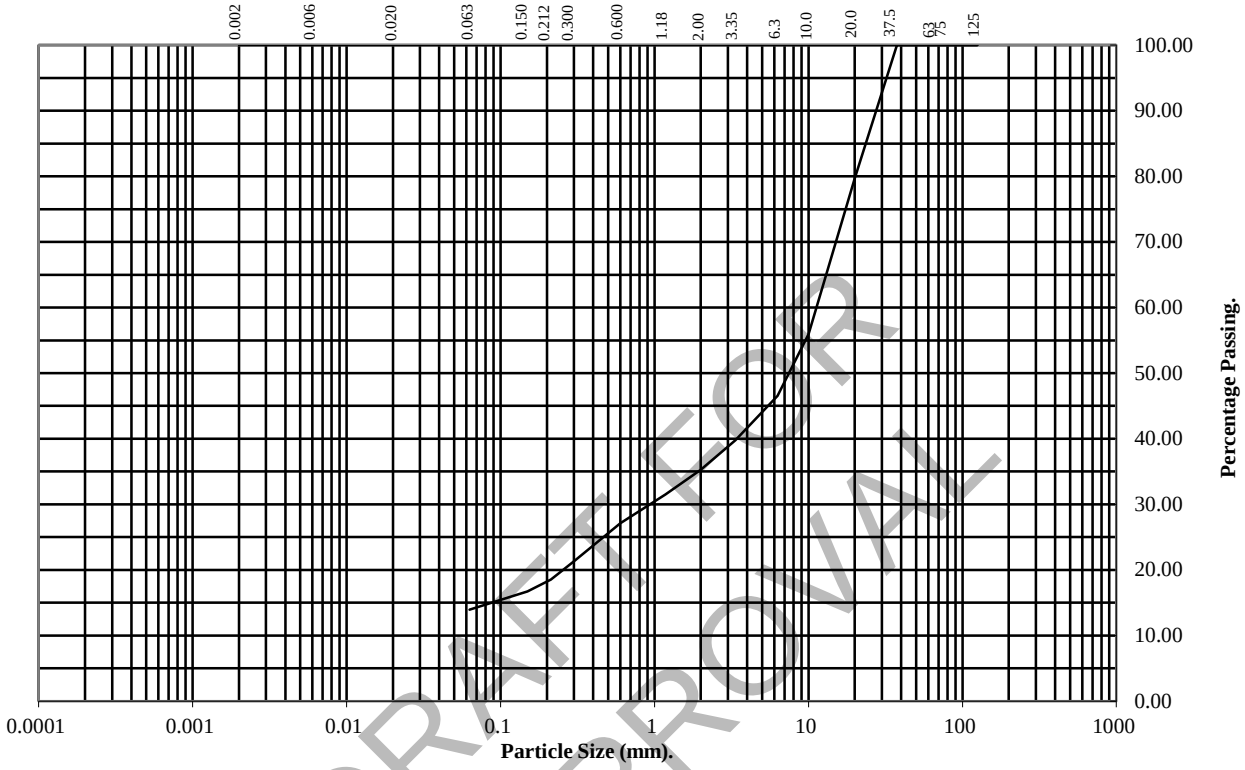
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **TP11** **Top Depth (m):** **1.00**

Sample Number: **3** **Base Depth(m):**

Sample Type: **B**



DRAFT FOR APPROVAL

BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	80
10	56
6.3	47
3.35	40
2	35
1.18	32
0.6	27
0.3	21
0.212	19
0.15	17
0.063	14

Soil Fraction	Total Percentage
Cobbles	0
Gravel	65
Sand	21
Silt/Clay	14

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

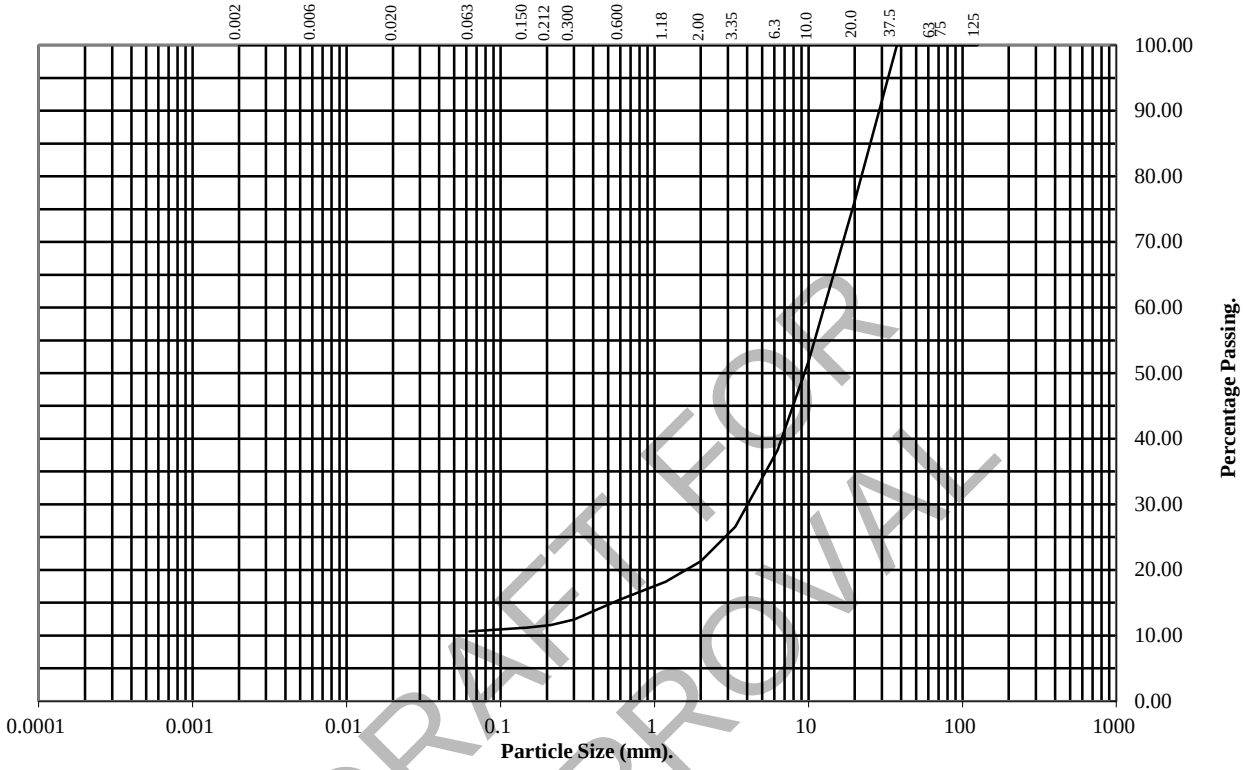
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **TP13** **Top Depth (m):** **0.70**

Sample Number: **3** **Base Depth(m):**

Sample Type: **B**



DRAFT FOR APPROVAL

BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	76
10	52
6.3	38
3.35	27
2	21
1.18	18
0.6	15
0.3	12
0.212	12
0.15	11
0.063	11

Soil Fraction	Total Percentage
Cobbles	0
Gravel	79
Sand	10
Silt/Clay	11

Remarks:

See Summary of Soil Descriptions

Highways + Engineering

Appendix 9

Chemical Laboratory Testing Results

DRAFT FOR APPROVAL

eurofins | Chemtest
Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Final Report

Report No.:	21-23967-1
Initial Date of Issue:	29-Jul-2021
Client	Ground Investigation & Piling Ltd
Client Address:	Devonshire House Ettingshall Road Wolverhampton West Midlands WV2 2JT
Contact(s):	Matthew Laws
Project	ML/30535 London Rd, Shewsbury
Quotation No.:	Q20-22351
Order No.:	ML/2021/169
No. of Samples:	23
Turnaround (Wkdays):	9
Date Approved:	29-Jul-2021
Approved By:	
Details:	Glynn Harvey, Technical Manager

Date Received:	13-Jul-2021
Date Instructed:	13-Jul-2021
Results Due:	23-Jul-2021

DRAFT FOR APPROVAL

Results - Soil

Project: ML/30535 London Rd, Shewsbury

Client: Ground Investigation & Piling Ltd			**Chemtest Job No.:**		21-23967	21-23967	21-23967	21-23967	21-23967	21-23967	21-23967	21-23967
Quotation No.: Q20-22351			**Chemtest Sample ID.:**		1239273	1239274	1239275	1239276	1239277	1239278	1239279	1239280
Order No.: ML/2021/169			Client Sample Ref.:		30535/CP2/0.5 0/2/B	30535/CP3/0.1 0/1/B	30535/CP4/0.1 0/1/B	30535/CP4/2.0 0/5/S	30535/CP5/0.4 0/2/B	30535/CP5/2.0 0/6/B	30535/CP6/0.1 0/1/B	30535/CP6/0.7 0/2/B
			Client Sample ID.:		2	1	1	5	2	6	1	2
			Sample Location:		CP2	CP3	CP4	CP4	CP5	CP5	CP6	CP6
			Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top Depth (m):		0.5	0.1	0.1	2	0.4	2	0.1	0.7
			Asbestos Lab:			COVENTRY					COVENTRY	
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
ACM Type	U	2192		N/A		-					-	
Asbestos Identification	U	2192		N/A		No Asbestos Detected					No Asbestos Detected	
Moisture	N	2030	%	0.020	6.0	9.7	12	12	7.9	14	10	12
Soil Colour	N	2040		N/A	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown
Other Material	N	2040		N/A	Stones	Stones, Roots and Wood	Stones and Roots	Stones	Stones and Roots	Stones	Stones, Roots and Wood	Stones and Roots
Soil Texture	N	2040		N/A	Sand	Sand	Sand	Clay	Sand	Clay	Sand	Clay
pH	M	2010		4.0		[A] 8.1					[A] 7.9	
pH (2.5:1)	N	2010		4.0	[A] 8.7	[A] 8.1	[A] 8.0		[A] 8.6			[A] 8.3
Boron (Hot Water Soluble)	M	2120	mg/kg	0.40		[A] 0.56					[A] 0.63	
Magnesium (Water Soluble)	N	2120	g/l	0.010	[A] < 0.010	[A] < 0.010	[A] 0.010		[A] < 0.010		[A] < 0.010	[A] < 0.010
Sulphate (2:1 Water Soluble) as SO4	M	2120	g/l	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010		[A] < 0.010		[A] < 0.010	[A] < 0.010
Total Sulphur	M	2175	%	0.010	[A] 0.035	[A] 0.066	[A] 0.054		[A] < 0.010			[A] 0.016
Chloride (Water Soluble)	M	2220	g/l	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010		[A] < 0.010			[A] < 0.010
Nitrate (Water Soluble)	N	2220	g/l	0.010	< 0.010	< 0.010	< 0.010		< 0.010			< 0.010
Cyanide (Free)	M	2300	mg/kg	0.50		[A] < 0.50					[A] < 0.50	
Cyanide (Total)	M	2300	mg/kg	0.50		[A] < 0.50					[A] < 0.50	
Aluminium (Total)	N	2430	mg/kg	100		[A] 12000					[A] 11000	
Iron (Total)	N	2430	mg/kg	100		[A] 19000					[A] 18000	
Phosphorus (Total)	N	2430	mg/kg	10				[A] 420		[A] 620		
Sulphate (Acid Soluble)	M	2430	%	0.010	[A] 0.013	[A] 0.11	[A] 0.025		[A] < 0.010		[A] 0.064	[A] 0.011
Arsenic	M	2450	mg/kg	1.0		11					8.7	
Beryllium	U	2450	mg/kg	1.0		< 1.0					< 1.0	
Cadmium	M	2450	mg/kg	0.10		0.29					0.27	
Chromium	M	2450	mg/kg	1.0		28					22	
Manganese	M	2450	mg/kg	5.0		1100					670	
Molybdenum	M	2450	mg/kg	2.0		< 2.0					< 2.0	
Antimony	N	2450	mg/kg	2.0		< 2.0					< 2.0	
Copper	M	2450	mg/kg	0.50		28					22	
Mercury	M	2450	mg/kg	0.10		0.10					< 0.10	
Nickel	M	2450	mg/kg	0.50		32					23	
Lead	M	2450	mg/kg	0.50		38					30	
Selenium	M	2450	mg/kg	0.20		< 0.20					< 0.20	
Zinc	M	2450	mg/kg	0.50		130					100	
Chromium (Hexavalent)	N	2490	mg/kg	0.50		< 0.50					< 0.50	

DRAFT FOR APPROVAL

Results - Soil

Project: ML/30535 London Rd, Shewsbury

Client: Ground Investigation & Piling Ltd			Chemtest Job No.:		21-23967	21-23967	21-23967	21-23967	21-23967	21-23967	21-23967	21-23967
Quotation No.: Q20-22351			Chemtest Sample ID.:		1239273	1239274	1239275	1239276	1239277	1239278	1239279	1239280
Order No.: ML/2021/169			Client Sample Ref.:		30535/CP2/0.5 0/2/B	30535/CP3/0.1 0/1/B	30535/CP4/0.1 0/1/B	30535/CP4/2.0 0/5/S	30535/CP5/0.4 0/2/B	30535/CP5/2.0 0/6/B	30535/CP6/0.1 0/1/B	30535/CP6/0.7 0/2/B
			Client Sample ID.:		2	1	1	5	2	6	1	2
			Sample Location:		CP2	CP3	CP4	CP4	CP5	CP5	CP6	CP6
			Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top Depth (m):		0.5	0.1	0.1	2	0.4	2	0.1	0.7
			Asbestos Lab:			COVENTRY					COVENTRY	
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
Total Organic Carbon	M	2625	%	0.20		[A] 2.0					[A] 1.7	
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0		[A] < 1.0						
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0		[A] < 1.0						
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0		[A] < 1.0						
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0		[A] < 1.0						
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0		[A] < 1.0						
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0		[A] < 1.0						
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0		[A] 4.6						
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0		[A] < 1.0						
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0		[A] < 5.0						
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0		[A] < 1.0						
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0		[A] < 1.0						
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0		[A] < 1.0						
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0		[A] < 1.0						
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0		[A] < 1.0						
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0		[A] < 1.0						
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0		[A] 56						
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0		[A] < 1.0						
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0		[A] 56						
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0		[A] 61						
Naphthalene	M	2700	mg/kg	0.10		[A] < 0.10					[A] < 0.10	
Acenaphthylene	M	2700	mg/kg	0.10		[A] < 0.10					[A] < 0.10	
Acenaphthene	M	2700	mg/kg	0.10		[A] < 0.10					[A] < 0.10	
Fluorene	M	2700	mg/kg	0.10		[A] < 0.10					[A] < 0.10	
Phenanthrene	M	2700	mg/kg	0.10		[A] < 0.10					[A] < 0.10	
Anthracene	M	2700	mg/kg	0.10		[A] < 0.10					[A] < 0.10	
Fluoranthene	M	2700	mg/kg	0.10		[A] < 0.10					[A] < 0.10	
Pyrene	M	2700	mg/kg	0.10		[A] < 0.10					[A] < 0.10	
Benzo[a]anthracene	M	2700	mg/kg	0.10		[A] < 0.10					[A] < 0.10	
Chrysene	M	2700	mg/kg	0.10		[A] < 0.10					[A] < 0.10	
Benzo[b]fluoranthene	M	2700	mg/kg	0.10		[A] < 0.10					[A] < 0.10	
Benzo[k]fluoranthene	M	2700	mg/kg	0.10		[A] < 0.10					[A] < 0.10	
Benzo[a]pyrene	M	2700	mg/kg	0.10		[A] < 0.10					[A] < 0.10	
Indeno(1,2,3-c,d)Pyrene	M	2700	mg/kg	0.10		[A] < 0.10					[A] < 0.10	
Dibenz(a,h)Anthracene	M	2700	mg/kg	0.10		[A] < 0.10					[A] < 0.10	
Benzo[g,h,i]perylene	M	2700	mg/kg	0.10		[A] < 0.10					[A] < 0.10	

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Results - Soil

Project: ML/30535 London Rd, Shewsbury

Client: Ground Investigation & Piling Ltd			**Chemtest Job No.:**		21-23967	21-23967	21-23967	21-23967	21-23967	21-23967	21-23967	21-23967
Quotation No.: Q20-22351			**Chemtest Sample ID.:**		1239273	1239274	1239275	1239276	1239277	1239278	1239279	1239280
Order No.: ML/2021/169			Client Sample Ref.:		30535/CP2/0.5 0/2/B	30535/CP3/0.1 0/1/B	30535/CP4/0.1 0/1/B	30535/CP4/2.0 0/5/S	30535/CP5/0.4 0/2/B	30535/CP5/2.0 0/6/B	30535/CP6/0.1 0/1/B	30535/CP6/0.7 0/2/B
			Client Sample ID.:		2	1	1	5	2	6	1	2
			Sample Location:		CP2	CP3	CP4	CP4	CP5	CP5	CP6	CP6
			Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top Depth (m):		0.5	0.1	0.1	2	0.4	2	0.1	0.7
			Asbestos Lab:			COVENTRY					COVENTRY	
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
Total Of 16 PAH's	M	2700	mg/kg	2.0		[A] < 2.0					[A] < 2.0	
Methanal (Formaldehyde)	N		mg/kg	0.0250				0.052		< 0.025		
Benzene	M	2760	µg/kg	1.0		[A] < 1.0						
Toluene	M	2760	µg/kg	1.0		[A] < 1.0						
Ethylbenzene	M	2760	µg/kg	1.0		[A] < 1.0						
m & p-Xylene	M	2760	µg/kg	1.0		[A] < 1.0						
o-Xylene	M	2760	µg/kg	1.0		[A] < 1.0						
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0		[A] < 1.0						
Demeton-O	N	2820	mg/kg	0.20								
Phorate	N	2820	mg/kg	0.20								
Demeton-S	N	2820	mg/kg	0.20								
Disulfoton	N	2820	mg/kg	0.20								
Fenthion	N	2820	mg/kg	0.20								
Trichloronate	N	2820	mg/kg	0.20								
Prothiofos	N	2820	mg/kg	0.20								
Fensulphothion	N	2820	mg/kg	0.20								
Sulprofos	N	2820	mg/kg	0.20								
Azinphos-Methyl	N	2820	mg/kg	0.20								
Coumaphos	N	2820	mg/kg	0.20								
Atraton	N	2830	mg/kg	0.20								
Prometon	N	2830	mg/kg	0.20								
Simazine	N	2830	mg/kg	0.20								
Atrazine	N	2830	mg/kg	0.20								
Propazine	N	2830	mg/kg	0.20								
Terbuthylazine	N	2830	mg/kg	0.20								
Secbumeton	N	2830	mg/kg	0.20								
Simetryn	N	2830	mg/kg	0.20								
Ametryn	N	2830	mg/kg	0.20								
Prometryn	N	2830	mg/kg	0.20								
Terbutryn	N	2830	mg/kg	0.20								
Alpha-HCH	N	2840	mg/kg	0.20								
Gamma-HCH (Lindane)	N	2840	mg/kg	0.20								
Beta-HCH	N	2840	mg/kg	0.20								
Delta-HCH	N	2840	mg/kg	0.20								
Heptachlor	N	2840	mg/kg	0.20								
Aldrin	N	2840	mg/kg	0.20								

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Results - Soil

Project: ML/30535 London Rd, Shewsbury

Client: Ground Investigation & Piling Ltd			**Chemtest Job No.:**		21-23967	21-23967	21-23967	21-23967	21-23967	21-23967	21-23967	21-23967
Quotation No.: Q20-22351			**Chemtest Sample ID.:**		1239273	1239274	1239275	1239276	1239277	1239278	1239279	1239280
Order No.: ML/2021/169			Client Sample Ref.:		30535/CP2/0.5 0/2/B	30535/CP3/0.1 0/1/B	30535/CP4/0.1 0/1/B	30535/CP4/2.0 0/5/S	30535/CP5/0.4 0/2/B	30535/CP5/2.0 0/6/B	30535/CP6/0.1 0/1/B	30535/CP6/0.7 0/2/B
			Client Sample ID.:		2	1	1	5	2	6	1	2
			Sample Location:		CP2	CP3	CP4	CP4	CP5	CP5	CP6	CP6
			Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top Depth (m):		0.5	0.1	0.1	2	0.4	2	0.1	0.7
			Asbestos Lab:			COVENTRY					COVENTRY	
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
Heptachlor Epoxide	N	2840	mg/kg	0.20								
Gamma-Chlordane	N	2840	mg/kg	0.20								
Alpha-Chlordane	N	2840	mg/kg	0.20								
Endosulfan I	N	2840	mg/kg	0.20								
4,4-DDE	N	2840	mg/kg	0.20								
Dieldrin	N	2840	mg/kg	0.20								
Endrin	N	2840	mg/kg	0.20								
4,4-DDD	N	2840	mg/kg	0.20								
Endosulfan II	N	2840	mg/kg	0.20								
Endrin Aldehyde	N	2840	mg/kg	0.20								
4,4-DDT	N	2840	mg/kg	0.20								
Endosulfan Sulphate	N	2840	mg/kg	0.20								
Methoxychlor	N	2840	mg/kg	0.20								
Endrin Ketone	N	2840	mg/kg	0.20								

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Results - Soil

Project: ML/30535 London Rd, Shewsbury

Client: Ground Investigation & Piling Ltd			**Chemtest Job No.:**		21-23967	21-23967	21-23967	21-23967	21-23967	21-23967	21-23967	21-23967
Quotation No.: Q20-22351			**Chemtest Sample ID.:**		1239281	1239282	1239283	1239284	1239285	1239286	1239287	1239288
Order No.: ML/2021/169			Client Sample Ref.:		30535/CP8/0.1 0/1/B	30535/CP8/0.5 0/2/B	30535/TP2/0.3 0/1/B	30535/TP2/0.5 0/2/B	30535/TP3/0.2 0/1/B	30535/TP3/0.4 0/2/B	30535/TP4/0.1 0/1/B	30535/TP4/0.5 0/2/B
			Client Sample ID.:		1	2	1	2	1	2	1	2
			Sample Location:		CP8	CP8	TP2	TP2	TP3	TP3	TP4	TP4
			Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top Depth (m):		0.1	0.5	0.3	0.5	0.2	0.4	0.1	0.5
			Asbestos Lab:		COVENTRY		COVENTRY		COVENTRY		COVENTRY	
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
ACM Type	U	2192		N/A	-		-		-		-	
Asbestos Identification	U	2192		N/A	No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected	
Moisture	N	2030	%	0.020	6.5	10	14	5.5	11	8.4	7.3	9.9
Soil Colour	N	2040		N/A	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown
Other Material	N	2040		N/A	Stones, Roots and Wood	Stones, Roots and Wood	Stones and Roots	Stones and Roots	Stones and Roots	Stones and Roots	Stones and Roots	Stones and Roots
Soil Texture	N	2040		N/A	Sand	Clay	Sand	Sand	Sand	Sand	Sand	Sand
pH	M	2010		4.0	[A] 7.6		[A] 7.9		[A] 7.5		[A] 8.0	
pH (2.5:1)	N	2010		4.0		[A] 8.1		[A] 8.4		[A] 8.0		[A] 8.2
Boron (Hot Water Soluble)	M	2120	mg/kg	0.40	[A] 0.63		[A] 1.6		[A] 1.1		[A] 0.55	
Magnesium (Water Soluble)	N	2120	g/l	0.010	[A] 0.011	[A] < 0.010	[A] 0.012	[A] < 0.010	[A] 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
Sulphate (2:1 Water Soluble) as SO4	M	2120	g/l	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
Total Sulphur	M	2175	%	0.010		[A] 0.028		[A] 0.016		[A] 0.021		[A] 0.015
Chloride (Water Soluble)	M	2220	g/l	0.010		[A] < 0.010		[A] < 0.010		[A] < 0.010		[A] < 0.010
Nitrate (Water Soluble)	N	2220	g/l	0.010		< 0.010		< 0.010		< 0.010		< 0.010
Cyanide (Free)	M	2300	mg/kg	0.50	[A] < 0.50		[A] < 0.50		[A] < 0.50		[A] < 0.50	
Cyanide (Total)	M	2300	mg/kg	0.50	[A] < 0.50		[A] 6.0		[A] 0.60		[A] < 0.50	
Aluminium (Total)	N	2430	mg/kg	100	[A] 14000		[A] 9400		[A] 7900		[A] 11000	
Iron (Total)	N	2430	mg/kg	100	[A] 21000		[A] 17000		[A] 16000		[A] 19000	
Phosphorus (Total)	N	2430	mg/kg	10			[A] 1300					
Sulphate (Acid Soluble)	M	2430	%	0.010	[A] 0.067	[A] 0.018	[A] 0.074	[A] < 0.010	[A] 0.089	[A] 0.022	[A] 0.039	[A] 0.010
Arsenic	M	2450	mg/kg	1.0	11		7.3		14		7.3	
Beryllium	U	2450	mg/kg	1.0	< 1.0		< 1.0		< 1.0		< 1.0	
Cadmium	M	2450	mg/kg	0.10	0.39		0.28		0.65		0.25	
Chromium	M	2450	mg/kg	1.0	26		18		27		19	
Manganese	M	2450	mg/kg	5.0	930		520		1100		880	
Molybdenum	M	2450	mg/kg	2.0	< 2.0		< 2.0		< 2.0		< 2.0	
Antimony	N	2450	mg/kg	2.0	< 2.0		< 2.0		< 2.0		< 2.0	
Copper	M	2450	mg/kg	0.50	24		21		33		19	
Mercury	M	2450	mg/kg	0.10	0.10		< 0.10		0.16		< 0.10	
Nickel	M	2450	mg/kg	0.50	27		16		30		22	
Lead	M	2450	mg/kg	0.50	49		38		86		27	
Selenium	M	2450	mg/kg	0.20	< 0.20		< 0.20		< 0.20		< 0.20	
Zinc	M	2450	mg/kg	0.50	130		140		280		140	
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50		< 0.50		< 0.50		< 0.50	

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Results - Soil

Project: ML/30535 London Rd, Shewsbury

Client: Ground Investigation & Piling Ltd			Chemtest Job No.:		21-23967	21-23967	21-23967	21-23967	21-23967	21-23967	21-23967	21-23967
Quotation No.: Q20-22351			Chemtest Sample ID.:		1239281	1239282	1239283	1239284	1239285	1239286	1239287	1239288
Order No.: ML/2021/169			Client Sample Ref.:		30535/CP8/0.1 0/1/B	30535/CP8/0.5 0/2/B	30535/TP2/0.3 0/1/B	30535/TP2/0.5 0/2/B	30535/TP3/0.2 0/1/B	30535/TP3/0.4 0/2/B	30535/TP4/0.1 0/1/B	30535/TP4/0.5 0/2/B
			Client Sample ID.:		1	2	1	2	1	2	1	2
			Sample Location:		CP8	CP8	TP2	TP2	TP3	TP3	TP4	TP4
			Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top Depth (m):		0.1	0.5	0.3	0.5	0.2	0.4	0.1	0.5
			Asbestos Lab:		COVENTRY		COVENTRY		COVENTRY		COVENTRY	
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
Total Organic Carbon	M	2625	%	0.20	[A] 2.2		[A] 3.0		[A] 3.1		[A] 1.2	
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	[A] < 1.0							
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	[A] < 1.0							
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	[A] < 1.0							
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	[A] < 1.0							
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	[A] < 1.0							
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	[A] < 1.0							
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	[A] 26							
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	[A] < 1.0							
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	[A] 26							
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	[A] < 1.0							
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	[A] < 1.0							
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	[A] < 1.0							
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	[A] < 1.0							
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	[A] < 1.0							
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	[A] < 1.0							
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	[A] 31							
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	[A] < 1.0							
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	[A] 31							
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	[A] 57							
Naphthalene	M	2700	mg/kg	0.10	[A] < 0.10		[A] < 0.10		[A] < 0.10		[A] < 0.10	
Acenaphthylene	M	2700	mg/kg	0.10	[A] < 0.10		[A] < 0.10		[A] < 0.10		[A] < 0.10	
Acenaphthene	M	2700	mg/kg	0.10	[A] < 0.10		[A] < 0.10		[A] < 0.10		[A] < 0.10	
Fluorene	M	2700	mg/kg	0.10	[A] < 0.10		[A] < 0.10		[A] < 0.10		[A] < 0.10	
Phenanthrene	M	2700	mg/kg	0.10	[A] < 0.10		[A] 0.85		[A] < 0.10		[A] < 0.10	
Anthracene	M	2700	mg/kg	0.10	[A] < 0.10		[A] 0.13		[A] < 0.10		[A] < 0.10	
Fluoranthene	M	2700	mg/kg	0.10	[A] < 0.10		[A] 1.2		[A] < 0.10		[A] < 0.10	
Pyrene	M	2700	mg/kg	0.10	[A] < 0.10		[A] 1.2		[A] < 0.10		[A] < 0.10	
Benzo[a]anthracene	M	2700	mg/kg	0.10	[A] < 0.10		[A] 1.0		[A] < 0.10		[A] < 0.10	
Chrysene	M	2700	mg/kg	0.10	[A] < 0.10		[A] 0.50		[A] < 0.10		[A] < 0.10	
Benzo[b]fluoranthene	M	2700	mg/kg	0.10	[A] < 0.10		[A] 1.2		[A] < 0.10		[A] < 0.10	
Benzo[k]fluoranthene	M	2700	mg/kg	0.10	[A] < 0.10		[A] 0.52		[A] < 0.10		[A] < 0.10	
Benzo[a]pyrene	M	2700	mg/kg	0.10	[A] < 0.10		[A] 0.61		[A] < 0.10		[A] < 0.10	
Indeno(1,2,3-c,d)Pyrene	M	2700	mg/kg	0.10	[A] < 0.10		[A] 0.32		[A] < 0.10		[A] < 0.10	
Dibenz(a,h)Anthracene	M	2700	mg/kg	0.10	[A] < 0.10		[A] 0.20		[A] < 0.10		[A] < 0.10	
Benzo[g,h,i]perylene	M	2700	mg/kg	0.10	[A] < 0.10		[A] 0.51		[A] < 0.10		[A] < 0.10	

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Results - Soil

Project: ML/30535 London Rd, Shewsbury

Client: Ground Investigation & Piling Ltd					Chemtest Job No.:	21-23967	21-23967	21-23967	21-23967	21-23967	21-23967	21-23967	21-23967
Quotation No.: Q20-22351					Chemtest Sample ID.:	1239281	1239282	1239283	1239284	1239285	1239286	1239287	1239288
Order No.: ML/2021/169					Client Sample Ref.:	30535/CP8/0.1 0/1/B	30535/CP8/0.5 0/2/B	30535/TP2/0.3 0/1/B	30535/TP2/0.5 0/2/B	30535/TP3/0.2 0/1/B	30535/TP3/0.4 0/2/B	30535/TP4/0.1 0/1/B	30535/TP4/0.5 0/2/B
					Client Sample ID.:	1	2	1	2	1	2	1	2
					Sample Location:	CP8	CP8	TP2	TP2	TP3	TP3	TP4	TP4
					Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
					Top Depth (m):	0.1	0.5	0.3	0.5	0.2	0.4	0.1	0.5
					Asbestos Lab:	COVENTRY		COVENTRY		COVENTRY		COVENTRY	
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
Total Of 16 PAH's	M	2700	mg/kg	2.0		[A] < 2.0		[A] 8.2		[A] < 2.0		[A] < 2.0	
Methanal (Formaldehyde)	N		mg/kg	0.0250				< 0.025					
Benzene	M	2760	µg/kg	1.0		[A] < 1.0							
Toluene	M	2760	µg/kg	1.0		[A] < 1.0							
Ethylbenzene	M	2760	µg/kg	1.0		[A] < 1.0							
m & p-Xylene	M	2760	µg/kg	1.0		[A] < 1.0							
o-Xylene	M	2760	µg/kg	1.0		[A] < 1.0							
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0		[A] < 1.0							
Demeton-O	N	2820	mg/kg	0.20		< 0.20		< 0.20					
Phorate	N	2820	mg/kg	0.20		< 0.20		< 0.20					
Demeton-S	N	2820	mg/kg	0.20		< 0.20		< 0.20					
Disulfoton	N	2820	mg/kg	0.20		< 0.20		< 0.20					
Fenthion	N	2820	mg/kg	0.20		< 0.20		< 0.20					
Trichloronate	N	2820	mg/kg	0.20		< 0.20		< 0.20					
Prothiofos	N	2820	mg/kg	0.20		< 0.20		< 0.20					
Fensulphothion	N	2820	mg/kg	0.20		< 0.20		< 0.20					
Sulprofos	N	2820	mg/kg	0.20		< 0.20		< 0.20					
Azinphos-Methyl	N	2820	mg/kg	0.20		< 0.20		< 0.20					
Coumaphos	N	2820	mg/kg	0.20		< 0.20		< 0.20					
Atraton	N	2830	mg/kg	0.20		< 0.20		< 0.20					
Prometon	N	2830	mg/kg	0.20		< 0.20		< 0.20					
Simazine	N	2830	mg/kg	0.20		< 0.20		< 0.20					
Atrazine	N	2830	mg/kg	0.20		< 0.20		< 0.20					
Propazine	N	2830	mg/kg	0.20		< 0.20		< 0.20					
Terbuthylazine	N	2830	mg/kg	0.20		< 0.20		< 0.20					
Secbumeton	N	2830	mg/kg	0.20		< 0.20		< 0.20					
Simetryn	N	2830	mg/kg	0.20		< 0.20		< 0.20					
Ametryn	N	2830	mg/kg	0.20		< 0.20		< 0.20					
Prometryn	N	2830	mg/kg	0.20		< 0.20		< 0.20					
Terbutryn	N	2830	mg/kg	0.20		< 0.20		< 0.20					
Alpha-HCH	N	2840	mg/kg	0.20		< 0.20		< 0.20					
Gamma-HCH (Lindane)	N	2840	mg/kg	0.20		< 0.20		< 0.20					
Beta-HCH	N	2840	mg/kg	0.20		< 0.20		< 0.20					
Delta-HCH	N	2840	mg/kg	0.20		< 0.20		< 0.20					
Heptachlor	N	2840	mg/kg	0.20		< 0.20		< 0.20					
Aldrin	N	2840	mg/kg	0.20		< 0.20		< 0.20					

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Results - Soil

Project: ML/30535 London Rd, Shewsbury

Client: Ground Investigation & Piling Ltd			**Chemtest Job No.:**		21-23967	21-23967	21-23967	21-23967	21-23967	21-23967	21-23967	21-23967
Quotation No.: Q20-22351			**Chemtest Sample ID.:**		1239281	1239282	1239283	1239284	1239285	1239286	1239287	1239288
Order No.: ML/2021/169			Client Sample Ref.:		30535/CP8/0.1 0/1/B	30535/CP8/0.5 0/2/B	30535/TP2/0.3 0/1/B	30535/TP2/0.5 0/2/B	30535/TP3/0.2 0/1/B	30535/TP3/0.4 0/2/B	30535/TP4/0.1 0/1/B	30535/TP4/0.5 0/2/B
			Client Sample ID.:		1	2	1	2	1	2	1	2
			Sample Location:		CP8	CP8	TP2	TP2	TP3	TP3	TP4	TP4
			Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top Depth (m):		0.1	0.5	0.3	0.5	0.2	0.4	0.1	0.5
			Asbestos Lab:		COVENTRY		COVENTRY		COVENTRY		COVENTRY	
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
Heptachlor Epoxide	N	2840	mg/kg	0.20	< 0.20		< 0.20					
Gamma-Chlordane	N	2840	mg/kg	0.20	< 0.20		< 0.20					
Alpha-Chlordane	N	2840	mg/kg	0.20	< 0.20		< 0.20					
Endosulfan I	N	2840	mg/kg	0.20	< 0.20		< 0.20					
4,4-DDE	N	2840	mg/kg	0.20	< 0.20		< 0.20					
Dieldrin	N	2840	mg/kg	0.20	< 0.20		< 0.20					
Endrin	N	2840	mg/kg	0.20	< 0.20		< 0.20					
4,4-DDD	N	2840	mg/kg	0.20	< 0.20		< 0.20					
Endosulfan II	N	2840	mg/kg	0.20	< 0.20		< 0.20					
Endrin Aldehyde	N	2840	mg/kg	0.20	< 0.20		< 0.20					
4,4-DDT	N	2840	mg/kg	0.20	< 0.20		< 0.20					
Endosulfan Sulphate	N	2840	mg/kg	0.20	< 0.20		< 0.20					
Methoxychlor	N	2840	mg/kg	0.20	< 0.20		< 0.20					
Endrin Ketone	N	2840	mg/kg	0.20	< 0.20		< 0.20					

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Results - Soil

Project: ML/30535 London Rd, Shewsbury

Client: Ground Investigation & Piling Ltd				**Chemtest Job No.:**	21-23967	21-23967	21-23967	21-23967	21-23967	21-23967	21-23967
Quotation No.: Q20-22351				**Chemtest Sample ID.:**	1239289	1239290	1239291	1239292	1239293	1239294	1239295
Order No.: ML/2021/169				Client Sample Ref.:	30535/TP5/0.20/1/B	30535/TP6/0.20/1/B	30535/TP7/2.00/4/B	30535/TP9/0.30/1/B	30535/TP10/0.20/1/B	30535/TP12/0.10/1/B	30535/TP13/0.20/1/B
				Client Sample ID.:	1	1	4	1	1	1	1
				Sample Location:	TP5	TP6	TP7	TP9	TP10	TP12	TP13
				Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
				Top Depth (m):	0.2	0.2	2	0.30	0.20	0.1	0.2
				Asbestos Lab:	COVENTRY	COVENTRY		COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**							
ACM Type	U	2192		N/A	-	-		-	-	-	-
Asbestos Identification	U	2192		N/A	No Asbestos Detected	No Asbestos Detected		No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
Moisture	N	2030	%	0.020	7.9	7.8	10	9.9	7.7	7.0	9.5
Soil Colour	N	2040		N/A	Brown	Brown	Brown	Brown	Brown	Brown	Brown
Other Material	N	2040		N/A	Stones and Roots	Stones, Roots and Wood	Stones and Roots	Stones and Roots	Stones and Roots	Stones and Roots	Stones and Roots
Soil Texture	N	2040		N/A	Sand	Sand	Clay	Sand	Sand	Sand	Sand
pH	M	2010		4.0	[A] 7.8	[A] 8.0		[A] 7.6	[A] 7.5	[A] 7.9	[A] 7.8
pH (2.5:1)	N	2010		4.0						[A] 8.0	
Boron (Hot Water Soluble)	M	2120	mg/kg	0.40	[A] 0.63	[A] 0.47		[A] 0.85	[A] 0.67	[A] 0.65	[A] 0.85
Magnesium (Water Soluble)	N	2120	g/l	0.010	[A] < 0.010	[A] < 0.010		[A] < 0.010	[A] 0.011	[A] < 0.010	[A] < 0.010
Sulphate (2:1 Water Soluble) as SO4	M	2120	g/l	0.010	[A] < 0.010	[A] < 0.010		[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
Total Sulphur	M	2175	%	0.010						[A] 0.053	
Chloride (Water Soluble)	M	2220	g/l	0.010						[A] < 0.010	
Nitrate (Water Soluble)	N	2220	g/l	0.010						< 0.010	
Cyanide (Free)	M	2300	mg/kg	0.50	[A] < 0.50	[A] < 0.50		[A] < 0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50
Cyanide (Total)	M	2300	mg/kg	0.50	[A] < 0.50	[A] < 0.50		[A] < 0.50	[A] 0.60	[A] < 0.50	[A] < 0.50
Aluminium (Total)	N	2430	mg/kg	100	[A] 16000	[A] 14000		[A] 13000	[A] 12000	[A] 12000	[A] 12000
Iron (Total)	N	2430	mg/kg	100	[A] 22000	[A] 20000		[A] 20000	[A] 19000	[A] 20000	[A] 19000
Phosphorus (Total)	N	2430	mg/kg	10			[A] 140				
Sulphate (Acid Soluble)	M	2430	%	0.010	[A] 0.030	[A] 0.012		[A] 0.039	[A] 0.031	[A] 0.017	[A] 0.044
Arsenic	M	2450	mg/kg	1.0	13	6.7		11	12	8.8	10
Beryllium	U	2450	mg/kg	1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0
Cadmium	M	2450	mg/kg	0.10	0.37	0.14		0.24	0.39	0.30	0.37
Chromium	M	2450	mg/kg	1.0	32	40		28	23	23	25
Manganese	M	2450	mg/kg	5.0	1200	830		810	950	700	1000
Molybdenum	M	2450	mg/kg	2.0	< 2.0	< 2.0		< 2.0	< 2.0	< 2.0	< 2.0
Antimony	N	2450	mg/kg	2.0	< 2.0	< 2.0		< 2.0	< 2.0	< 2.0	< 2.0
Copper	M	2450	mg/kg	0.50	27	12		24	27	28	23
Mercury	M	2450	mg/kg	0.10	< 0.10	< 0.10		< 0.10	0.10	< 0.10	< 0.10
Nickel	M	2450	mg/kg	0.50	33	31		29	25	28	26
Lead	M	2450	mg/kg	0.50	46	21		41	51	41	44
Selenium	M	2450	mg/kg	0.20	< 0.20	< 0.20		< 0.20	< 0.20	< 0.20	< 0.20
Zinc	M	2450	mg/kg	0.50	140	79		130	220	140	120
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50

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Results - Soil

Project: ML/30535 London Rd, Shewsbury

Client: Ground Investigation & Piling Ltd			**Chemtest Job No.:**		21-23967	21-23967	21-23967	21-23967	21-23967	21-23967	21-23967
Quotation No.: Q20-22351			**Chemtest Sample ID.:**		1239289	1239290	1239291	1239292	1239293	1239294	1239295
Order No.: ML/2021/169			Client Sample Ref.:		30535/TP5/0.20/1/B	30535/TP6/0.20/1/B	30535/TP7/2.0 0/4/B	30535/TP9/0.3 0/1/B	30535/TP10/0. 20/1/B	30535/TP12/0. 10/1/B	30535/TP13/0. 20/1/B
			Client Sample ID.:		1	1	4	1	1	1	1
			Sample Location:		TP5	TP6	TP7	TP9	TP10	TP12	TP13
			Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top Depth (m):		0.2	0.2	2	0.30	0.20	0.1	0.2
			Asbestos Lab:		COVENTRY	COVENTRY		COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**							
Total Organic Carbon	M	2625	%	0.20	[A] 1.5	[A] 1.2		[A] 1.5	[A] 1.5	[A] 0.80	[A] 2.0
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0		[A] < 1.0				[A] < 1.0	
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0		[A] < 1.0				[A] < 1.0	
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0		[A] < 1.0				[A] < 1.0	
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0		[A] < 1.0				[A] < 1.0	
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0		[A] < 1.0				[A] < 1.0	
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0		[A] < 1.0				[A] < 1.0	
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0		[A] 4.8				[A] < 1.0	
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0		[A] < 1.0				[A] < 1.0	
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0		[A] < 5.0				[A] < 5.0	
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0		[A] < 1.0				[A] < 1.0	
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0		[A] < 1.0				[A] < 1.0	
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0		[A] < 1.0				[A] < 1.0	
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0		[A] < 1.0				[A] < 1.0	
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0		[A] < 1.0				[A] < 1.0	
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0		[A] < 1.0				[A] < 1.0	
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0		[A] 33				[A] < 1.0	
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0		[A] < 1.0				[A] < 1.0	
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0		[A] 33				[A] < 5.0	
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0		[A] 38				[A] < 10	
Naphthalene	M	2700	mg/kg	0.10	[A] < 0.10	[A] < 0.10		[A] < 0.10	[A] < 0.10	[A] < 0.10	[A] < 0.10
Acenaphthylene	M	2700	mg/kg	0.10	[A] < 0.10	[A] < 0.10		[A] < 0.10	[A] < 0.10	[A] 0.35	[A] < 0.10
Acenaphthene	M	2700	mg/kg	0.10	[A] < 0.10	[A] < 0.10		[A] < 0.10	[A] < 0.10	[A] 1.1	[A] < 0.10
Fluorene	M	2700	mg/kg	0.10	[A] < 0.10	[A] < 0.10		[A] < 0.10	[A] < 0.10	[A] 1.1	[A] < 0.10
Phenanthrene	M	2700	mg/kg	0.10	[A] < 0.10	[A] < 0.10		[A] < 0.10	[A] < 0.10	[A] 15	[A] 0.17
Anthracene	M	2700	mg/kg	0.10	[A] < 0.10	[A] < 0.10		[A] < 0.10	[A] < 0.10	[A] 4.3	[A] < 0.10
Fluoranthene	M	2700	mg/kg	0.10	[A] < 0.10	[A] < 0.10		[A] < 0.10	[A] < 0.10	[A] 26	[A] 0.32
Pyrene	M	2700	mg/kg	0.10	[A] < 0.10	[A] < 0.10		[A] < 0.10	[A] < 0.10	[A] 26	[A] 0.35
Benzo[a]anthracene	M	2700	mg/kg	0.10	[A] < 0.10	[A] < 0.10		[A] < 0.10	[A] < 0.10	[A] 11	[A] 0.50
Chrysene	M	2700	mg/kg	0.10	[A] < 0.10	[A] < 0.10		[A] < 0.10	[A] < 0.10	[A] 9.1	[A] 0.35
Benzo[b]fluoranthene	M	2700	mg/kg	0.10	[A] < 0.10	[A] < 0.10		[A] < 0.10	[A] < 0.10	[A] 8.3	[A] < 0.10
Benzo[k]fluoranthene	M	2700	mg/kg	0.10	[A] < 0.10	[A] < 0.10		[A] < 0.10	[A] < 0.10	[A] 4.8	[A] < 0.10
Benzo[a]pyrene	M	2700	mg/kg	0.10	[A] < 0.10	[A] < 0.10		[A] < 0.10	[A] < 0.10	[A] 9.2	[A] < 0.10
Indeno(1,2,3-c,d)Pyrene	M	2700	mg/kg	0.10	[A] < 0.10	[A] < 0.10		[A] < 0.10	[A] < 0.10	[A] 5.9	[A] < 0.10
Dibenz(a,h)Anthracene	M	2700	mg/kg	0.10	[A] < 0.10	[A] < 0.10		[A] < 0.10	[A] < 0.10	[A] 2.3	[A] < 0.10
Benzo[g,h,i]perylene	M	2700	mg/kg	0.10	[A] < 0.10	[A] < 0.10		[A] < 0.10	[A] < 0.10	[A] 5.3	[A] < 0.10

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Results - Soil

Project: ML/30535 London Rd, Shewsbury

Client: Ground Investigation & Piling Ltd			Chemtest Job No.:		21-23967	21-23967	21-23967	21-23967	21-23967	21-23967	21-23967
Quotation No.: Q20-22351			Chemtest Sample ID.:		1239289	1239290	1239291	1239292	1239293	1239294	1239295
Order No.: ML/2021/169			Client Sample Ref.:		30535/TP5/0.20/1/B	30535/TP6/0.20/1/B	30535/TP7/2.00/4/B	30535/TP9/0.30/1/B	30535/TP10/0.20/1/B	30535/TP12/0.10/1/B	30535/TP13/0.20/1/B
			Client Sample ID.:		1	1	4	1	1	1	1
			Sample Location:		TP5	TP6	TP7	TP9	TP10	TP12	TP13
			Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top Depth (m):		0.2	0.2	2	0.30	0.20	0.1	0.2
			Asbestos Lab:		COVENTRY	COVENTRY		COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**							
Total Of 16 PAH's	M	2700	mg/kg	2.0	[A] < 2.0	[A] < 2.0		[A] < 2.0	[A] < 2.0	[A] 130	[A] < 2.0
Methanal (Formaldehyde)	N		mg/kg	0.0250			0.16				
Benzene	M	2760	µg/kg	1.0		[A] < 1.0				[A] < 1.0	
Toluene	M	2760	µg/kg	1.0		[A] < 1.0				[A] < 1.0	
Ethylbenzene	M	2760	µg/kg	1.0		[A] < 1.0				[A] < 1.0	
m & p-Xylene	M	2760	µg/kg	1.0		[A] < 1.0				[A] < 1.0	
o-Xylene	M	2760	µg/kg	1.0		[A] < 1.0				[A] < 1.0	
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0		[A] < 1.0				[A] < 1.0	
Demeton-O	N	2820	mg/kg	0.20		< 0.20		< 0.20			
Phorate	N	2820	mg/kg	0.20		< 0.20		< 0.20			
Demeton-S	N	2820	mg/kg	0.20		< 0.20		< 0.20			
Disulfoton	N	2820	mg/kg	0.20		< 0.20		< 0.20			
Fenthion	N	2820	mg/kg	0.20		< 0.20		< 0.20			
Trichloronate	N	2820	mg/kg	0.20		< 0.20		< 0.20			
Prothiofos	N	2820	mg/kg	0.20		< 0.20		< 0.20			
Fensulphothion	N	2820	mg/kg	0.20		< 0.20		< 0.20			
Sulprofos	N	2820	mg/kg	0.20		< 0.20		< 0.20			
Azinphos-Methyl	N	2820	mg/kg	0.20		< 0.20		< 0.20			
Coumaphos	N	2820	mg/kg	0.20		< 0.20		< 0.20			
Atraton	N	2830	mg/kg	0.20		< 0.20		< 0.20			
Prometon	N	2830	mg/kg	0.20		< 0.20		< 0.20			
Simazine	N	2830	mg/kg	0.20		< 0.20		< 0.20			
Atrazine	N	2830	mg/kg	0.20		< 0.20		< 0.20			
Propazine	N	2830	mg/kg	0.20		< 0.20		< 0.20			
Terbuthylazine	N	2830	mg/kg	0.20		< 0.20		< 0.20			
Secbumeton	N	2830	mg/kg	0.20		< 0.20		< 0.20			
Simetryn	N	2830	mg/kg	0.20		< 0.20		< 0.20			
Ametryn	N	2830	mg/kg	0.20		< 0.20		< 0.20			
Prometryn	N	2830	mg/kg	0.20		< 0.20		< 0.20			
Terbutryn	N	2830	mg/kg	0.20		< 0.20		< 0.20			
Alpha-HCH	N	2840	mg/kg	0.20		< 0.20		< 0.20			
Gamma-HCH (Lindane)	N	2840	mg/kg	0.20		< 0.20		< 0.20			
Beta-HCH	N	2840	mg/kg	0.20		< 0.20		< 0.20			
Delta-HCH	N	2840	mg/kg	0.20		< 0.20		< 0.20			
Heptachlor	N	2840	mg/kg	0.20		< 0.20		< 0.20			
Aldrin	N	2840	mg/kg	0.20		< 0.20		< 0.20			

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Results - Soil

Project: ML/30535 London Rd, Shewsbury

Client: Ground Investigation & Piling Ltd			**Chemtest Job No.:**		21-23967	21-23967	21-23967	21-23967	21-23967	21-23967	21-23967
Quotation No.: Q20-22351			**Chemtest Sample ID.:**		1239289	1239290	1239291	1239292	1239293	1239294	1239295
Order No.: ML/2021/169			Client Sample Ref.:		30535/TP5/0.20/1/B	30535/TP6/0.20/1/B	30535/TP7/2.00/4/B	30535/TP9/0.30/1/B	30535/TP10/0.20/1/B	30535/TP12/0.10/1/B	30535/TP13/0.20/1/B
			Client Sample ID.:		1	1	4	1	1	1	1
			Sample Location:		TP5	TP6	TP7	TP9	TP10	TP12	TP13
			Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top Depth (m):		0.2	0.2	2	0.30	0.20	0.1	0.2
			Asbestos Lab:		COVENTRY	COVENTRY		COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**							
Heptachlor Epoxide	N	2840	mg/kg	0.20		< 0.20		< 0.20			
Gamma-Chlordane	N	2840	mg/kg	0.20		< 0.20		< 0.20			
Alpha-Chlordane	N	2840	mg/kg	0.20		< 0.20		< 0.20			
Endosulfan I	N	2840	mg/kg	0.20		< 0.20		< 0.20			
4,4-DDE	N	2840	mg/kg	0.20		< 0.20		< 0.20			
Dieldrin	N	2840	mg/kg	0.20		< 0.20		< 0.20			
Endrin	N	2840	mg/kg	0.20		< 0.20		< 0.20			
4,4-DDD	N	2840	mg/kg	0.20		< 0.20		< 0.20			
Endosulfan II	N	2840	mg/kg	0.20		< 0.20		< 0.20			
Endrin Aldehyde	N	2840	mg/kg	0.20		< 0.20		< 0.20			
4,4-DDT	N	2840	mg/kg	0.20		< 0.20		< 0.20			
Endosulfan Sulphate	N	2840	mg/kg	0.20		< 0.20		< 0.20			
Methoxychlor	N	2840	mg/kg	0.20		< 0.20		< 0.20			
Endrin Ketone	N	2840	mg/kg	0.20		< 0.20		< 0.20			

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Deviations

In accordance with UKAS Policy on Deviating Samples TPS 63. Chemtest have a procedure to ensure 'upon receipt of each sample a competent laboratory shall assess whether the sample is suitable with regard to the requested test(s)'. This policy and the respective holding times applied, can be supplied upon request.The reason a sample is declared as deviating is detailed below. Where applicable the analysis remains UKAS/MCERTs accredited but the results may be compromised.

Sample:	Sample Ref:	Sample ID:	Sample Location:	Sampled Date:	Deviation Code(s):	Containers Received:
1239273	30535/CP2/0.50/2/B	2	CP2		A	Plastic Tub 500g
1239274	30535/CP3/0.10/1/B	1	CP3		A	Amber Glass 250ml
1239274	30535/CP3/0.10/1/B	1	CP3		A	Amber Glass 60ml
1239274	30535/CP3/0.10/1/B	1	CP3		A	Plastic Tub 500g
1239275	30535/CP4/0.10/1/B	1	CP4		A	Amber Glass 60ml
1239275	30535/CP4/0.10/1/B	1	CP4		A	Plastic Tub 500g
1239276	30535/CP4/2.00/5/S	5	CP4		A	Amber Glass 250ml
1239276	30535/CP4/2.00/5/S	5	CP4		A	Amber Glass 60ml
1239277	30535/CP5/0.40/2/B	2	CP5		A	Plastic Tub 500g
1239278	30535/CP5/2.00/6/B	6	CP5		A	Amber Glass 250ml
1239278	30535/CP5/2.00/6/B	6	CP5		A	Amber Glass 60ml
1239279	30535/CP6/0.10/1/B	1	CP6		A	Amber Glass 250ml
1239279	30535/CP6/0.10/1/B	1	CP6		A	Amber Glass 60ml
1239279	30535/CP6/0.10/1/B	1	CP6		A	Plastic Tub 500g
1239280	30535/CP6/0.70/2/B	2	CP6		A	Plastic Tub 500g
1239281	30535/CP8/0.10/1/B	1	CP8		A	Amber Glass 250ml
1239281	30535/CP8/0.10/1/B	1	CP8		A	Amber Glass 60ml
1239281	30535/CP8/0.10/1/B	1	CP8		A	Plastic Tub 500g
1239282	30535/CP8/0.50/2/B	2	CP8		A	Plastic Tub 500g
1239283	30535/TP2/0.30/1/B	1	TP2		A	Amber Glass 250ml
1239283	30535/TP2/0.30/1/B	1	TP2		A	Plastic Tub 500g
1239284	30535/TP2/0.50/2/B	2	TP2		A	Amber Glass 60ml
1239284	30535/TP2/0.50/2/B	2	TP2		A	Plastic Tub 500g
1239285	30535/TP3/0.20/1/B	1	TP3		A	Amber Glass 250ml
1239285	30535/TP3/0.20/1/B	1	TP3		A	Amber Glass 60ml

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Deviations

In accordance with UKAS Policy on Deviating Samples TPS 63. Chemtest have a procedure to ensure 'upon receipt of each sample a competent laboratory shall assess whether the sample is suitable with regard to the requested test(s)'. This policy and the respective holding times applied, can be supplied upon request.The reason a sample is declared as deviating is detailed below. Where applicable the analysis remains UKAS/MCERTs accredited but the results may be compromised.

Sample:	Sample Ref:	Sample ID:	Sample Location:	Sampled Date:	Deviation Code(s):	Containers Received:
1239285	30535/TP3/0.20/1/B	1	TP3		A	Plastic Tub 500g
1239286	30535/TP3/0.40/2/B	2	TP3		A	Plastic Tub 500g
1239287	30535/TP4/0.10/1/B	1	TP4		A	Amber Glass 250ml
1239287	30535/TP4/0.10/1/B	1	TP4		A	Plastic Tub 500g
1239288	30535/TP4/0.50/2/B	2	TP4		A	Plastic Tub 500g
1239289	30535/TP5/0.20/1/B	1	TP5		A	Amber Glass 250ml
1239289	30535/TP5/0.20/1/B	1	TP5		A	Amber Glass 60ml
1239289	30535/TP5/0.20/1/B	1	TP5		A	Plastic Tub 500g
1239290	30535/TP6/0.20/1/B	1	TP6		A	Amber Glass 250ml
1239290	30535/TP6/0.20/1/B	1	TP6		A	Amber Glass 60ml
1239290	30535/TP6/0.20/1/B	1	TP6		A	Plastic Tub 500g
1239291	30535/TP7/2.00/4/B	4	TP7		A	Amber Glass 250ml
1239291	30535/TP7/2.00/4/B	4	TP7		A	Amber Glass 60ml
1239291	30535/TP7/2.00/4/B	4	TP7		A	Plastic Tub 500g
1239292	30535/TP9/0.30/1/B	1	TP9		A	Amber Glass 250ml
1239292	30535/TP9/0.30/1/B	1	TP9		A	Amber Glass 60ml
1239292	30535/TP9/0.30/1/B	1	TP9		A	Plastic Tub 500g
1239293	30535/TP10/0.20/1/B	1	TP10		A	Amber Glass 250ml
1239293	30535/TP10/0.20/1/B	1	TP10		A	Amber Glass 60ml
1239293	30535/TP10/0.20/1/B	1	TP10		A	Plastic Tub 500g
1239294	30535/TP12/0.10/1/B	1	TP12		A	Amber Glass 250ml
1239294	30535/TP12/0.10/1/B	1	TP12		A	Amber Glass 60ml
1239294	30535/TP12/0.10/1/B	1	TP12		A	Plastic Tub 500g
1239295	30535/TP13/0.20/1/B	1	TP13		A	Amber Glass 250ml

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Deviations

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Sample:	Sample Ref:	Sample ID:	Sample Location:	Sampled Date:	Deviation Code(s):	Containers Received:
1239295	30535/TP13/0.20/1/B	1	TP13		A	Amber Glass 60ml
1239295	30535/TP13/0.20/1/B	1	TP13		A	Plastic Tub 500g

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Test Methods

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2175	Total Sulphur in Soils	Total Sulphur	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2220	Water soluble Chloride in Soils	Chloride	Aqueous extraction and measurememrnt by 'Aquakem 600' Discrete Analyser using ferric nitrate / mercuric thiocyanate.
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
2700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-FID	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2820	Organophosphorus (O-P) Pesticides in Soils by GC-MS	Organophosphorus pesticide representative suite including Parathion, Malathion etc, plus client specific determinands	Dichloromethane extraction / GC-MS
2830	Organonitrogen (O-N) Pesticides in Soils by GC-MS	Organonitrogen pesticide representative suite including Triazines etc, plus client specific determinands	Dichloromethane extraction / GC-MS
2840	Organochlorine (O-Cl) Pesticides in Soils by GC-MS	Organochlorine pesticide representative suite including DDT and its metabolites, 'drins' and HCH etc, plus client specific determinands	Dichloromethane extraction / GC-MS

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Report Information

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M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

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None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at the indicated laboratory
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

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Sample Deviation Codes

A - Date of sampling not supplied
B - Sample age exceeds stability time (sampling to extraction)
C - Sample not received in appropriate containers
D - Broken Container
E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Final Report

Report No.:	21-26763-1
Initial Date of Issue:	09-Aug-2021
Client	Ground Investigation & Piling Ltd
Client Address:	Devonshire House Ettingshall Road Wolverhampton West Midlands WV2 2JT
Contact(s):	Matthew Laws
Project	ML/30535 London Rd, Shrewsbury
Quotation No.:	Q20-22351
Order No.:	ML/2021/69
No. of Samples:	6
Turnaround (Wkdays):	5
Date Approved:	09-Aug-2021
Approved By:	
Details:	Glynn Harvey, Technical Manager

Date Received:	04-Aug-2021
Date Instructed:	04-Aug-2021
Results Due:	10-Aug-2021

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Results - Water

Project: ML/30535 London Rd, Shrewsbury

Client: Ground Investigation & Piling Ltd			**Chemtest Job No.:**		21-26763	21-26763	21-26763	21-26763	21-26763	21-26763
Quotation No.: Q20-22351			**Chemtest Sample ID.:**		1253298	1253299	1253300	1253301	1253302	1253303
			Sample Location:		CP1	CP3	CP4	CP6	CP8	CP10
			Sample Type:		WATER	WATER	WATER	WATER	WATER	WATER
			Date Sampled:		29-Jul-2021	29-Jul-2021	29-Jul-2021	29-Jul-2021	29-Jul-2021	29-Jul-2021
Determinand	**Accred.**	**SOP**	**Units**	**LOD**						
pH	U	1010		N/A	8.2	8.0	8.2	8.0	8.2	8.4
Biochemical Oxygen Demand	N	1090	mg O2/l	4.0	[B] 8.7	[B] 10	[B] < 4.0	[B] 8.8	[B] < 4.0	[B] < 4.0
Chemical Oxygen Demand	U	1100	mg O2/l	10	[B] 35	[B] 41	[B] 22	[B] 35	[B] 22	[B] 26
Cyanide (Total) Low-Level	N	1300	mg/l	0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Cyanide (Free) Low-Level	N	1300	mg/l	0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Calcium	U	1455	mg/l	2.00	140	61	94	78	100	97
Potassium	U	1455	mg/l	0.50	12	7.3	3.4	1.4	4.3	4.3
Sodium	U	1455	µg/l	1500.00	< 1500	< 1500	< 1500	< 1500	< 1500	< 1500
Aluminium (Dissolved)	N	1455	µg/l	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Arsenic (Dissolved)	U	1455	µg/l	0.20	0.42	< 0.20	0.74	0.21	< 0.20	1.5
Boron (Dissolved)	U	1455	µg/l	10.0	66	53	69	58	89	38
Beryllium (Dissolved)	U	1455	µg/l	1.00	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Cadmium (Dissolved)	U	1455	µg/l	0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11
Chromium (Dissolved)	U	1455	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Copper (Dissolved)	U	1455	µg/l	0.50	2.4	4.5	5.0	4.0	2.8	3.8
Iron (Dissolved)	N	1455	µg/l	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Mercury (Dissolved)	U	1455	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Manganese (Dissolved)	U	1455	µg/l	0.50	3.1	3.0	16	1.1	1.7	2100
Molybdenum (Dissolved)	U	1455	µg/l	0.20	31	4.2	4.3	4.1	3.5	5.1
Nickel (Dissolved)	U	1455	µg/l	0.50	1.0	0.95	0.84	0.72	< 0.50	1.9
Lead (Dissolved)	U	1455	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Antimony (Dissolved)	U	1455	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.53
Selenium (Dissolved)	U	1455	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Zinc (Dissolved)	U	1455	µg/l	2.5	< 2.5	13	5.6	9.6	< 2.5	7.4
Chromium (Hexavalent)	U	1490	µg/l	20	[B] < 20	[B] < 20	[B] < 20	[B] < 20	[B] < 20	[B] < 20
Dissolved Organic Carbon	U	1610	mg/l	2.0	31	11	19	13	21	32
Ethanoic Acid	N	1680	mg/l	10	< 10		< 10			< 10
Propanoic Acid	N	1680	mg/l	10	< 10		< 10			< 10
Butanoic Acid	N	1680	mg/l	10	< 10		< 10			< 10
2-Methylpropanoic (Isobutyric) Acid	N	1680	mg/l	10	< 10		< 10			< 10
3-Methylbutanoic (Isovaleric) Acid	N	1680	mg/l	10	< 10		< 10			< 10
Pentanoic (N-Valeric) Acid	N	1680	mg/l	10	< 10		< 10			< 10
Total Fatty Acids	N	1680	mg/l	60	< 60		< 60			< 60
Naphthalene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Anthracene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluoranthene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

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Results - Water

Project: ML/30535 London Rd, Shrewsbury

Client: Ground Investigation & Piling Ltd			**Chemtest Job No.:**		21-26763	21-26763	21-26763	21-26763	21-26763	21-26763
Quotation No.: Q20-22351			**Chemtest Sample ID.:**		1253298	1253299	1253300	1253301	1253302	1253303
			Sample Location:		CP1	CP3	CP4	CP6	CP8	CP10
			Sample Type:		WATER	WATER	WATER	WATER	WATER	WATER
			Date Sampled:		29-Jul-2021	29-Jul-2021	29-Jul-2021	29-Jul-2021	29-Jul-2021	29-Jul-2021
Determinand	**Accred.**	**SOP**	**Units**	**LOD**						
Pyrene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[a]anthracene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Chrysene	N	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[b]fluoranthene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[k]fluoranthene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[a]pyrene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Of 16 PAH's	N	1700	µg/l	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Methanal (Formaldehyde)	N		mg/l	0.0050	< 0.0050		< 0.0050			< 0.0050

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Sample:	Sample Ref:	Sample ID:	Sample Location:	Sampled Date:	Deviation Code(s):	Containers Received:
1253298			CP1	29-Jul-2021	B	Coloured Winchester 500ml
1253298			CP1	29-Jul-2021	B	EPA Vial 40ml
1253299			CP3	29-Jul-2021	B	Coloured Winchester 500ml
1253299			CP3	29-Jul-2021	B	EPA Vial 40ml
1253300			CP4	29-Jul-2021	B	Coloured Winchester 500ml
1253300			CP4	29-Jul-2021	B	EPA Vial 40ml
1253301			CP6	29-Jul-2021	B	Coloured Winchester 500ml
1253301			CP6	29-Jul-2021	B	EPA Vial 40ml
1253302			CP8	29-Jul-2021	B	Coloured Winchester 500ml
1253302			CP8	29-Jul-2021	B	EPA Vial 40ml
1253303			CP10	29-Jul-2021	B	Coloured Winchester 500ml
1253303			CP10	29-Jul-2021	B	EPA Vial 40ml

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Test Methods

SOP	Title	Parameters included	Method summary
1010	pH Value of Waters	pH	pH Meter
1090	Biochemical Oxygen Demand	Biochemical Oxygen demand (BOD)	Colorimetric determination of dissolved oxygen in seeded sample after 5 days incubation at 20°C.
1100	Chemical Oxygen Demand	Chemical Oxygen demand (COD)	Dichromate oxidation of organic matter in sample followed by colorimetric determination of residual Cr[VI].
1300	Cyanides & Thiocyanate in Waters	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Continuous Flow Analysis.
1455	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS).
1490	Hexavalent Chromium in Waters	Chromium [VI]	Automated colorimetric analysis by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
1610	Total/Dissolved Organic Carbon in Waters	Organic Carbon	TOC Analyser using Catalytic Oxidation
1680	Extractable Petroleum Hydrocarbons	Aliphatics: >C5–C6, >C6–C8, >C8– C10*, >C10–C12*, >C12–C16*, >C16–C21*, >C21–C35*, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10*, >C10–C12*, >C12–C16*, >C16–C21*, >C21– C35*, >C35– C44	Dichloromethane extraction / GCxGC FID detection
1700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Waters by GC-FID	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)

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For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at the indicated laboratory
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

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Sample Deviation Codes

A - Date of sampling not supplied
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D - Broken Container
E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt
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Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

Appendix 10

Ground Gas Monitoring Results

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Devonshire House, Ettingshall Road,
Wolverhampton. WV2 2JT.
Tel. 01902 459558
www.gipuk.com
info@gipuk.com

STANDPIPE GAS & GROUNDWATER MONITORING RESULTS

CONTRACT No.	30535	**SITE**	London Rd, Shrewsbury, SY5 6QT
REPORT DATE	24/09/2021		
CHECKED	ML	**NOTES**	

CLIENT : TWC

ENGINEER :

Borehole. ID No	Date/Time	CH_4 (%) (by Volume)	LEL (%)	CO_2 (%) (by Volume)	O_2 (%) (by Volume)	H_2S (ppm)	CO (ppm)	Hexane (%) (by Volume)	Flow Rate (l/h)	Peak Flow (l/h)	Differential Pressure (mbar)	Atmospheric Pressue (mbar)	Groundwater (mbgl)	Base of Standpipe (mbgl)	Air Temperature (ºC)	Monitoring Technician Initials
CP1	14/07/2021	0.0	0.0	4.7	10.8	0	0	0.00	<0.5	<0.5	0.00	1012	2.82	12	20	RC
CP1	29/07/2021	0.0	0.0	5.9	14.5	0	0	0.00	<0.5	<0.5	0.00	1001	2.87	12	18	RC
CP1	12/08/2021	0.0	0.0	4.7	16.0	0	0	0.00	<0.5	<0.5	0.00	1007	2.97	12	18	RC
CP1	27/08/2021	0.0	0.0	4.2	16.8	0	0	0.00	<0.5	<0.5	0.00	1018	3.03	12	15	RC
CP1	06/09/2021	0.0	0.0	3.7	17.8	0	0	0.00	<0.5	<0.5	0.00	1014	3.04	12	20	RC
CP1	23/09/2021	0.0	0.0	3.1	18.3	0	0	0.00	<0.5	<0.5	0.00	1010	3.11	12	17	RC
CP3	14/07/2021	0.0	0.0	1.3	19.2	0	0	0.00	<0.5	<0.5	0.00	1011	1.62	8	20	RC
CP3	29/07/2021	0.0	0.0	0.9	19.8	0	0	0.00	<0.5	<0.5	0.00	1001	1.72	8	18	RC
CP3	12/08/2021	0.0	0.0	0.8	20.0	0	0	0.00	<0.5	<0.5	0.00	1007	1.74	8	18	RC
CP3	27/08/2021	0.0	0.0	0.8	19.9	0	0	0.00	<0.5	<0.5	0.00	1018	1.80	8	15	RC
CP3	06/09/2021	0.0	0.0	0.8	20.2	0	0	0.00	<0.5	<0.5	0.00	1014	1.78	8	20	RC
CP3	23/09/2021	0.0	0.0	0.7	20.4	0	0	0.00	<0.5	<0.5	0.00	1010	1.80	8	17	RC
CP4	14/07/2021	0.0	0.0	2.0	18.3	0	0	0.00	<0.5	<0.5	0.00	1012	1.64	12	20	RC
CP4	29/07/2021	0.0	0.0	2.2	19.4	0	0	0.00	<0.5	<0.5	0.00	1000	1.67	12	18	RC
CP4	12/08/2021	0.0	0.0	1.6	19.6	0	0	0.00	<0.5	<0.5	0.00	1009	1.71	12	18	RC
CP4	27/08/2021	0.0	0.0	1.2	19.7	0	0	0.00	<0.5	<0.5	0.00	1017	1.73	12	15	RC
CP4	06/09/2021	0.0	0.0	1.1	20.1	0	0	0.00	<0.5	<0.5	0.00	1014	1.74	12	20	RC
CP4	23/09/2021	0.0	0.0	0.9	20.2	0	0	0.00	<0.5	<0.5	0.00	1010	1.73	12	17	RC
CP6	14/07/2021	0.0	0.0	1.7	16.7	0	0	0.00	<0.5	<0.5	0.00	1011	0.92	12	20	RC
CP6	29/07/2021	0.0	0.0	0.9	19.1	0	0	0.00	<0.5	<0.5	0.00	1000	0.98	12	18	RC
CP6	12/08/2021	0.0	0.0	1.2	19.2	0	0	0.00	<0.5	<0.5	0.00	1007	1.00	12	18	RC
CP6	27/08/2021	0.0	0.0	1.7	18.4	0	0	0.00	<0.5	<0.5	0.00	1017	0.97	12	15	RC
CP6	06/09/2021	0.0	0.0	1.9	18.3	0	0	0.00	<0.5	<0.5	0.00	1014	1.03	12	20	RC
CP6	23/09/2021	0.8	20.0	2.1	17.6	0	0	0.05	<0.5	<0.5	0.00	1010	0.96	12	17	RC
CP8	14/07/2021	0.0	0.0	1.7	18.8	0	0	0.00	<0.5	<0.5	0.00	1012	1.40	12	20	RC
CP8	29/07/2021	0.0	0.0	2.4	18.6	0	0	0.00	<0.5	<0.5	0.00	1001	1.50	12	18	RC
CP8	12/08/2021	0.0	0.0	2.1	18.8	0	0	0.00	<0.5	<0.5	0.00	1007	1.52	12	18	RC
CP8	27/08/2021	0.0	0.0	2.0	18.6	0	0	0.00	<0.5	<0.5	0.00	1018	1.58	12	15	RC
CP8	06/09/2021	0.0	0.0	1.7	19.1	0	0	0.00	<0.5	<0.5	0.00	1014	1.60	12	20	RC
CP8	23/09/2021	0.0	0.0	1.6	19.2	0	0	0.00	<0.5	<0.5	0.00	1010	1.63	12	17	RC

DRAFT FOR APPROVAL

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CP10	14/07/2021	0.0	0.0	1.6	14.2	0	10	0.00	<0.5	<0.5	0.00	1011	0.75	8	20	RC
CP10	29/07/2021	0.0	0.0	1.1	17.2	0	10	0.00	<0.5	<0.5	0.00	1000	0.86	8	18	RC
CP10	12/08/2021	0.0	0.0	0.8	19.6	0	0	0.00	<0.5	<0.5	0.00	1007	0.87	8	18	RC
CP10	27/08/2021	0.0	0.0	1.1	19.0	0	0	0.00	<0.5	<0.5	0.00	1017	0.86	8	15	RC
CP10	06/09/2021	0.0	0.0	1.1	19.1	0	0	0.00	<0.5	<0.5	0.00	1015	0.83	8	20	RC
CP10	23/09/2021	0.0	0.0	1.5	18.6	0	0	0.00	<0.5	<0.5	0.00	1011	0.87	8	17	RC

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